

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

**Third Amended Site Certificate
for the
Biglow Canyon Wind Farm**

October 31, 2008

The Oregon Energy Facility Siting Council
THIRD AMENDED SITE CERTIFICATE
FOR THE BIGLOW CANYON WIND FARM

I. INTRODUCTION

1 This site certificate for the Biglow Canyon Wind Farm (“Biglow” or the “facility”) is
2 issued and executed in the manner provided by ORS Chapter 469, by and between the State of
3 Oregon (“State”), acting by and through its Energy Facility Siting Council (the “Council”), and
4 Portland General Electric Company (“certificate holder”). This site certificate is a binding
5 agreement between the State, acting by and through the Council, and the certificate holder.
6 [Amendment #1]

7 The findings of fact, reasoning and conclusions of law underlying the terms and
8 conditions of this site certificate are set forth in the following documents related to the facility,
9 which are incorporated herein by this reference: (a) the Council’s Final Order in the Matter of the
10 Application for a Site Certificate for the Biglow Canyon Wind Farm (the “Final Order on the
11 Application”); (b) the Council’s Final Order on Amendment #1; (c) the Council’s Final Order on
12 Amendment #2; and (d) the Council’s Final Order on Amendment #3. [Amendments #1, #2 and #3]

13 In interpreting this site certificate, any ambiguity shall be clarified by reference to the
14 following, in order of priority: (1) this Third Amended Site Certificate; (2) the Final Order on
15 Amendment #3; (3) the Final Order on Amendment #2; (4) the Final Order on Amendment #1;
16 (5) the Final Order on the Application; and (6) the record of the proceedings that led to the Final
17 Orders on the Application, Amendment #1, Amendment #2 and Amendment #3. [Amendments #1,
18 #2 and #3]

19 The terms used in this site certificate shall have the same meaning as set forth in ORS
20 469.300 and OAR 345-001-0010, except where otherwise stated or where the context clearly
21 indicates otherwise.

II. SITE CERTIFICATION

- 22 A. To the extent authorized by state law and subject to the conditions set forth herein, the State
23 authorizes the certificate holder to construct, operate and retire a wind energy facility,
24 together with certain related or supporting facilities, at the site in Sherman County, Oregon,
25 as described in Section III of this site certificate. ORS 469.401(1)
- 26 B. This site certificate is effective until it is terminated under OAR 345-027-0110 or the rules in
27 effect on the date that termination is sought or until the site certificate is revoked under ORS
28 469.440 and OAR 345-029-0100 or the statutes and rules in effect on the date that revocation
29 is ordered. ORS 469.401(1)
- 30 C. This site certificate does not address, and is not binding with respect to, matters that were not
31 addressed in the Council’s Final Orders on the Application, Amendment #1, Amendment #2
32 and Amendment #3. These matters include, but are not limited to: building code compliance,
33 wage, hour and other labor regulations, local government fees and charges, and other design
34 or operational issues that do not relate to siting the facility (ORS 469.401(4)) and permits
35 issued under statutes and rules for which the decision on compliance has been delegated by

1 the federal government to a state agency other than the Council. ORS 469.503(3).
2 [Amendments #1, #2 and #3]

- 3 D. Both the State and the certificate holder shall abide by local ordinances, state law, and the
4 rules of the Council in effect on the date this site certificate is issued. In addition, upon a
5 clear showing of a significant threat to public health, safety or the environment that requires
6 application of later-adopted laws or rules, the Council may require compliance with such
7 later-adopted laws or rules. ORS 469.401(2)
- 8 E. For a permit, license or other approval addressed in and governed by this site certificate, the
9 certificate holder shall comply with applicable state and federal laws adopted in the future to
10 the extent that such compliance is required under the respective state agency statutes and
11 rules. ORS 469.401(2)
- 12 F. Subject to the conditions herein, this site certificate binds the State and all counties, cities and
13 political subdivisions in Oregon as to the approval of the site and the construction, operation
14 and retirement of the facility as to matters that are addressed in and governed by this site
15 certificate. ORS 469.401(3)
- 16 G. Each affected state agency, county, city and political subdivision in Oregon with authority to
17 issue a permit, license or other approval addressed in or governed by this site certificate shall,
18 upon submission of the proper application and payment of the proper fees, but without
19 hearings or other proceedings, issue such permit, license or other approval subject only to
20 conditions set forth in this site certificate. ORS 469.401(3)
- 21 H. After issuance of this site certificate, each state agency or local government agency that
22 issues a permit, license or other approval for the facility shall continue to exercise
23 enforcement authority over such permit, license or other approval. ORS 469.401(3)
- 24 I. After issuance of this site certificate, the Council shall have continuing authority over the site
25 and may inspect, or direct the Department to inspect, or request another state agency or local
26 government to inspect, the site at any time in order to ensure that the facility is being
27 operated consistently with the terms and conditions of this site certificate. ORS 469.430

III. DESCRIPTIONS

A. THE FACILITY

28 In the site certificate application, the certificate holder defined the range of possible
29 turbine vendors, sizes and numbers. Subject to specific conditions, this site certificate allows the
30 certificate holder to construct wind turbines within defined 500-foot wide turbine corridors and
31 to select turbine vendor, turbine size, number of turbines to be installed and precise turbine
32 layout before beginning construction. This site certificate allows the certificate holder to
33 construct other facility components (collector lines, access roads, meteorological towers) within
34 micrositing areas. The facility is described further in the Final Order on Amendment #2.
35 [Amendment #2]

- 36 1. Major Structures. The Biglow Canyon Wind Farm will consist of up to 225 wind turbines
37 with an aggregate nominal nameplate generating capacity of up to 450 megawatts (MW)
38 of electricity and an average electric generating capacity of up to 150 MW. Turbines will
39 be mounted on tubular steel towers ranging in height from 265 to 280 feet at the hub with
40 an overall height of from 400 to 445 feet including the turbine blades. The turbines will

1 be erected within up to 30 corridors and spaced to optimize the facility's output. The
2 facility will be located on private farmland that the certificate holder has leased from the
3 affected landowners. [Amendments #1 and #2]

4 2. Related or Supporting Facilities. The facility includes the following related or supporting
5 facilities:

6 a. Power Collection System. Each wind turbine will generate power at about 600
7 volts. The transformer sitting at the base of each wind turbine unit will increase
8 the voltage to 34.5 kilovolts (kV). From the transformer, power will be
9 transmitted to a central substation by means of electric cables. Most of the cables
10 will be buried three feet or more below the surface in trenches about 3 feet wide.
11 In areas where collector cables from several turbine strings follow the same
12 alignment, e.g., on approach to the substation, multiple sets of cables may be
13 installed within a single trench. If the facility is fully developed, there will be
14 about 106 miles of 3-wire collector cables. Generally, these cables will be above,
15 below or adjacent to the fiber optic cables comprising the supervisory control and
16 data acquisition system. [Amendments #2 and #3]

17 In some locations, the collector cables may be constructed above ground on pole
18 or tower structures. Aboveground structures would allow the collector cables to
19 span terrain, such as canyons, native grasslands, wetlands, and intermittent
20 streams, thereby reducing adverse environmental impacts, or to span cultivated
21 areas, thereby reducing adverse impacts to farming operations. Poles or towers
22 supporting aboveground segments of the power collection system will be about 23
23 to 28 feet tall. Pending final site design, the certificate holder states that the length
24 of the aboveground segments of the power collection system will be up to but not
25 exceeding 15 miles.

26 b. Substations and Interconnection System. The substation site will be a graveled,
27 fenced area of up to 6 acres with transformers, switching equipment and a parking
28 area. Transformers will be non-polychlorinated biphenyl (PCB) oil-filled types.
29 The facility will interconnect with a new Bonneville Power Administration (BPA)
30 system transmission line adjacent to the facility substation. [Amendment #2].

31 c. Meteorological Towers. The certificate holder will place up to 10 meteorological
32 towers throughout the facility site to collect wind resource data. The towers would
33 be up to 279 feet tall.

34 d. Operations and Maintenance Building. The site of the operations and maintenance
35 buildings will comprise about 5 acres adjacent to the substation on Herin Lane.
36 The O&M buildings will occupy about 17,500 square feet and will include office
37 and workshop areas, control room, kitchen, bathroom, shower, utility sink, and
38 other typical facilities. Water for the bathroom, shower and kitchen will be
39 obtained from an onsite well constructed by a licensed contractor in accordance
40 with local and state requirements. Water use will not be expected to exceed 1,000
41 gallons per day. Domestic wastewater generated at the O&M facility will drain
42 into an onsite septic system. A graveled parking area for employees, visitors and
43 equipment will be located adjacent to the O&M facility. [Amendments #2 and #3]

- 1
- 2 e. Control System. The certificate holder will install a supervisory control and data
3 acquisition (SCADA) system to assist with the remote operation of the wind
4 turbines, to collect data from each wind turbine, and to archive wind and
5 performance data from various sources. The SCADA system will be linked by
6 means of fiber optic cables or other means of communication to a central
7 computer in the O&M facility.
- 8 f. Access Roads. The certificate holder will construct about 44 miles of new roads to
9 provide access to the wind turbine strings, together with turnaround areas at the
10 end of each wind turbine string. The roads will be about 16 feet wide (possibly up
11 to 28 feet wide in some locations) and will be composed of crushed gravel with
12 shoulders (without gravel) about 3 feet wide. In addition, the certificate holder
13 will improve about 0.7 mile of existing roads by providing an all-weather surface
14 and, in some cases, widening the roads to accommodate construction vehicles.
15 [Amendments #2 and #3]
- 16 g. Temporary Laydown and Staging Areas. Depending on whether it proceeds with
17 the 150-turbine or 225-turbine configuration, the certificate holder will use a total
18 of 186 or 261 laydown and staging areas to stage construction and store supplies
19 and equipment during construction of the facility. The certificate holder will
20 develop one 18,500 square-foot laydown area at the site of each wind turbine, a
21 one-acre laydown area for each wind turbine string, and six additional 5-acre
22 laydown areas at various locations throughout the facility site. The laydown areas
23 will have a crushed gravel surface and will be returned to their pre-construction
24 condition following completion of construction of the facility.
- 25 h. Temporary Crane Paths. The certificate holder will develop temporary crane
26 paths, totaling approximately 16 miles, in order to move construction cranes
27 between turbine corridors. The temporary crane paths will be returned to their
28 pre-construction condition following completion of construction of the facility.
29 [Amendments #2 and #3]

B. LOCATION OF THE FACILITY

30 The facility is located about 2.5 miles northeast of Wasco in Townships 1 and 2 North,
31 Ranges 17 and 18 East, Willamette Meridian, Sherman County, Oregon.

IV. SPECIFIC FACILITY CONDITIONS

32 The conditions listed in this section include conditions based on representations in the
33 site certificate application and supporting record. The Council deems these representations to be
34 binding commitments made by the applicant. These conditions are required under OAR 345-027-
35 0020(10).

36 This section includes other specific facility conditions the Council finds necessary to
37 ensure compliance with the siting standards of OAR Chapter 345, Divisions 22 and 24, and to
38 protect the public health and safety.

A. ORGANIZATIONAL EXPERTISE, OAR 345-022-0010

- 1 (1) Before beginning construction of the facility, the certificate holder shall notify the
2 Department of the identity and qualifications of the engineering, procurement and
3 construction (EPC) contractor(s) for specific portions of the work. The certificate holder
4 shall select EPC contractors that have substantial experience in the design and construction
5 of similar facilities. The certificate holder shall report to the Department any change of
6 major construction contractors.
- 7 (2) The certificate holder shall contractually require all construction contractors and
8 subcontractors involved in the construction of the facility to comply with all applicable
9 laws and regulations and with the terms and conditions of the site certificate. Such
10 contractual provisions shall not operate to relieve the certificate holder of responsibility
11 under the site certificate.
- 12 (3) During construction of the facility, the certificate holder shall have an on-site assistant
13 construction manager who is qualified in environmental compliance to ensure compliance
14 with all construction-related site certificate conditions. During operation, the certificate
15 holder shall have a project manager who is qualified in environmental compliance to ensure
16 compliance with all ongoing site certificate conditions. The certificate holder shall notify
17 the Department of the name, telephone number, fax number and e-mail address of these
18 managers and shall keep the Department informed of any change in this information.
- 19 (4) Within 72 hours after discovery of conditions or circumstances that may violate the terms
20 or conditions of the site certificate, the certificate holder shall report the conditions or
21 circumstances to the Department.

B. RETIREMENT AND FINANCIAL ASSURANCE, OAR 345-022-0050

- 22 (5) [Condition removed by Amendment #2]
- 23 (6) [Condition removed by Amendment #2]
- 24 (7) [Condition removed by Amendment #2]
- 25 (8) If the certificate holder elects to build the facility in more than one phase using any turbines
26 other than the GE 1.5-MW turbines or GE 3.0-MW turbines, before beginning construction
27 of any phase of the facility and after considering all micrositing factors, the certificate
28 holder shall provide to the Department a detailed map of that phase of the facility showing
29 the final locations where facility components are proposed to be built in relation to the
30 features and micrositing corridors shown on Figures 2, 2a, 2b and 2c as identified in the
31 Final Order on Amendment #3, shall identify on this map the facilities that would constitute
32 that phase of construction, and shall provide documentation defining the quantities of each
33 of the following components that would constitute that phase of construction: turbines, pad
34 transformers, meteorological towers, substation, O&M facility, miles of aboveground 34.5-
35 kV collector system, miles of access road, acres of turnarounds and access road
36 intersections, acres of temporary laydown area and miles of temporary crane paths. For
37 each turbine, the certificate shall define the turbine manufacturer, turbine capacity, weight
38 of steel, height of tower, sweep of blade, and size of concrete foundation. [Amendments #2 and
39 #3]

1 (9) In February 2007, in accordance with the terms and conditions of the First Amended Site
2 Certificate, the certificate holder submitted to the State of Oregon through the Council a
3 letter of credit in the amount of \$1.608 million before beginning construction of Phase 1 of
4 the facility. The calculation of the amount of the letter of credit included a deduction from
5 the estimated cost of site restoration for Phase 1 for the estimated value of scrap steel. In the
6 Final Order on Amendment #2, the Council found that there should be no deduction of
7 scrap or salvage value in calculating the amount of financial assurance required for site
8 restoration.

9 In June 2007, in accordance with the terms and conditions of the Second Amended Site
10 Certificate, the certificate holder submitted an amended letter of credit for Phase 1 in the
11 amount of \$5.001 million (3rd Quarter 2007 dollars). In January 2008, in accordance with
12 the terms and conditions of the Second Amended Site Certificate, the certificate holder
13 submitted an amended letter of credit for Phase 1 in the amount of \$5.058 million (1st
14 Quarter 2008 dollars).

15 Before beginning construction of any future phase of the facility, the certificate holder shall
16 submit a bond or letter of credit for that phase in an amount approved by the Department
17 and based on the costs shown in Table 1 of the Final Order on Amendment #3.

18 (a) The certificate holder shall adjust the amounts of all bonds or letters of credit
19 submitted in compliance with this condition to present value as of the date of issuance,
20 using the following calculation and subject to approval by the Department:

21 (i) Adjust the Subtotal (in 2005 dollars) to present value, using the U.S. Gross
22 Domestic Product Implicit Price Deflator, Chain-Weight, as published in the Oregon
23 Department of Administrative Services' *Oregon Economic and Revenue Forecast* or by any
24 successor agency (the "Index"). If at any time the Index is no longer published, the Council
25 shall select a comparable calculation to adjust 2005 dollars to present value.

26 (ii) Add 1 percent of the adjusted Subtotal (i) for the adjusted performance bond
27 amount to determine the adjusted Gross Cost.

28 (iii) Add 10 percent of the adjusted Gross Cost (ii) for the adjusted administration and
29 project management costs and 10 percent of the adjusted Gross Cost for the adjusted future
30 developments contingency.

31 (iv) Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) and round the
32 resulting total to the nearest \$1,000 to determine the adjusted financial assurance amount.

33 (b) The certificate holder shall annually adjust all bonds or letters of credit submitted in
34 compliance with this condition to present value as of the date of issuance as described in
35 (a).

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

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

40 (e) The certificate holder shall describe the status of all bonds or letters of credit for the
41 facility in the annual report submitted to the Council under Condition (122).

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

3 [Amendments #2 and #3]

- 4 (10) If the certificate holder elects to use a bond to meet the requirements of Condition (9), the
5 certificate holder shall ensure that the surety is obligated to comply with the requirements
6 of applicable statutes, Council rules and this site certificate when the surety exercises any
7 legal or contractual right it may have to assume construction, operation or retirement of the
8 facility. The certificate holder shall also ensure that the surety is obligated to notify the
9 Council that it is exercising such rights and to obtain any Council approvals required by
10 applicable statutes, Council rules and this site certificate before the surety commences any
11 activity to complete construction, operate or retire the facility.
- 12 (11) The certificate holder shall begin construction of the facility by June 30, 2009. Under OAR
13 345-015-0085(9), a site certificate is effective upon execution by the Council Chair and the
14 applicant. The Council may grant an extension of the deadline to begin construction in
15 accordance with OAR 345-027-0030 or any successor rule in effect at the time the request
16 for extension is submitted. [Amendment #2]
- 17 (12) The certificate holder shall complete construction of the facility by June 30, 2011.
18 Construction is complete when: (1) the facility is substantially complete as defined by the
19 certificate holder's construction contract documents; (2) acceptance testing has been
20 satisfactorily completed; and (3) the energy facility is ready to begin continuous operation
21 consistent with the site certificate. The certificate holder shall promptly notify the
22 Department of the date of completion of construction. The Council may grant an extension
23 of the deadline for completing construction in accordance with OAR 345-027-0030 or any
24 successor rule in effect at the time the request for extension is submitted. [Amendment #2]
- 25 (13) The certificate holder shall construct a facility substantially as described in the site
26 certificate.
- 27 (14) Notwithstanding OAR 345-027-0050(2), an amendment of the site certificate is required if
28 the proposed change would increase the electrical generation capacity of the facility and
29 would increase the number of wind turbines or the dimensions of existing wind turbines.
- 30 (15) The certificate holder shall obtain all necessary state and local permits or approvals
31 required for construction, operation and retirement of the facility or ensure that its
32 contractors obtain necessary state and local permits or approvals.
- 33 (16) Before beginning construction, the certificate holder shall notify the Department in advance
34 of any work on the site that does not meet the definition of "construction" in OAR 345-001-
35 0010 or ORS 469.300 and shall provide to the Department a description of the work and
36 evidence that its value is less than \$250,000.

C. LAND USE, OAR 345-022-0030

- 37 (17) The certificate holder shall construct the public road improvements described in the site
38 certificate application to meet or exceed road standards for the road classifications in the
39 County's Transportation System Plan and Zoning Ordinance because roads will require a
40 more substantial section to bear the weight of the vehicles and turbine components than
41 would usually be constructed by the County.

- 1 (18) The certificate holder shall ensure that no equipment or machinery is parked or stored on
2 any county road except while in use.
- 3 (19) The site certificate holder shall design and construct private access roads to minimize the
4 division of existing farm units.
- 5 (20) The certificate holder shall not locate any aboveground facility structure (including wind
6 turbines, O&M buildings, substations, and meteorological towers, but not including
7 aboveground transmission and collector lines and junction boxes) within 30 feet from any
8 property line or within 50 feet from the right-of-way of any arterial or major collector road
9 or street and shall not allow any architectural feature, as described in Sherman County
10 Zoning Ordinance Section 4.2, to project into these required setbacks by more than 2 feet.
11 [Amendment #3]
- 12 (21) The certificate holder shall locate access roads and temporary construction laydown and
13 staging areas to minimize disturbance with farming practices and, wherever feasible, shall
14 place turbines and transmission interconnection lines along the margins of cultivated areas
15 to reduce the potential for conflict with farm operations. The certificate holder shall place
16 aboveground collector lines and junction boxes along property lines and public road rights-
17 of-way to the extent practicable. [Amendment #2]
- 18 (22) During operation of the facility, the certificate holder, in cooperation with landowners, shall
19 avoid impact on cultivated land to the extent reasonably possible when performing facility
20 repair and maintenance activities.
- 21 (23) Where necessary and feasible, the certificate holder shall provide access across construction
22 trenches to fields within the facility site and otherwise provide adequate and timely access
23 to properties during critical periods in the farming cycle, such as harvest.
- 24 (24) Before beginning construction of the facility, the certificate holder shall record a Farm
25 Management Easement covering the properties on which the certificate holder locates wind
26 power generation facilities. The certificate holder shall record the easements in the real
27 property records of Sherman County and shall file a copy of the recorded easement with the
28 Sherman County Planning Director.
- 29 (25) The certificate holder shall remove from Special Farm Assessment the portions of parcels
30 on which facilities are located and shall pay all property taxes due and payable after the
31 Special Farm Assessment is removed from such properties.

D. SOIL PROTECTION, OAR 345-022-0022

- 32 (26) The certificate holder shall conduct all construction work in compliance with an Erosion
33 and Sediment Control Plan (ESCP) satisfactory to the Oregon Department of
34 Environmental Quality and as required under the National Pollutant Discharge Elimination
35 System (NPDES) Storm Water Discharge General Permit #1200-C. The certificate holder
36 shall include in the ESCP any procedures necessary to meet local erosion and sediment
37 control requirements and storm water management requirements.
- 38 (27) During construction of the facility, the certificate holder shall limit truck traffic to
39 designated existing and improved road surfaces to avoid soil compaction, to the extent
40 possible.

- 1 (28) The certificate holder shall cover turbine pad areas with gravel or other non-erosive
2 material immediately following exposure during construction and shall maintain the pad
3 area covering during operation of the facility.
- 4 (29) During construction of the facility, the certificate holder shall restore areas that are
5 temporarily disturbed in accordance with the methods, monitoring procedures and success
6 criteria described in the Revegetation Plan that is incorporated in this order as Attachment
7 B and as that Revegetation Plan may be amended from time to time. During operation of
8 the facility, the certificate holder shall restore areas that are temporarily disturbed during
9 facility maintenance or repairs according to the same methods and monitoring procedures.
- 10 (30) During operation of the facility, the certificate holder shall routinely inspect and maintain
11 all roads, pads and trenched areas and, as necessary, maintain or repair erosion control
12 measures.
- 13 (31) During construction of the underground collector system, the certificate holder shall open
14 the smallest necessary sections of trench during each day of construction and backfill the
15 trenches as soon as is practical after power lines have been set in the trenches.
- 16 (32) During construction of the facility, the certificate holder shall strip and stockpile soil from
17 laydown areas only during the time of year when rainfall is lowest, minimizing erosion
18 from precipitation.
- 19 (33) During construction of the facility, the certificate holder shall use straw bales or similar
20 containment features to protect soil stockpiles from erosion, as needed.
- 21 (34) During construction of the facility, the certificate holder shall keep wind-borne erosion to a
22 minimum by using water trucks for dust suppression, as necessary.
- 23 (35) During construction of the facility, the certificate holder shall restore staging locations by
24 bringing them back to their original contours, covering them with topsoil, and revegetating
25 or preparing them for planting of wheat or barley or use as range land.

E. PROTECTED AREAS, OAR 345-022-0040

- 26 (36) Without Department approval, the certificate holder shall not move any turbines within its
27 micrositing corridors such that a worst-case visual impact beyond that stated in the ASC
28 and ASC Supplement would occur for the John Day Wildlife Refuge, the John Day Federal
29 Wild and Scenic River, or the John Day State Scenic Waterway (Parrish Creek to
30 Tumwater Falls). Before constructing any turbines in the northward extension of Corridor 3
31 shown on Figure 2a of the Request for Amendment #3, the certificate holder shall provide a
32 visual impact analysis that includes the proposed turbines and demonstrates to the
33 satisfaction of the Department that the requirements of this condition are met. [Amendment
34 #3]

F. SCENIC AND AESTHETIC VALUES, OAR 345-022-0080

35 [No conditions]

G. RECREATION, OAR 345-022-0100

36 [No conditions]

H. PUBLIC HEALTH AND SAFETY STANDARDS FOR WIND ENERGY FACILITIES, OAR 345-024-0010

- 1 (37) During construction, operation or retirement of the facility, the certificate holder shall
2 notify the Department within 72 hours of any accidents that may result in public health and
3 safety concerns, including mechanical failures on the site associated with construction or
4 operation of the facility.
- 5 (38) Before beginning construction of any phase of the facility, the certificate holder shall
6 submit a Notice of Proposed Construction or Alteration to the Federal Aviation
7 Administration (FAA) identifying the proposed final locations of the turbines and related or
8 supporting facilities for that phase of the facility. The certificate holder shall notify the
9 Department of the FAA's response as soon as it has been received.
- 10 (39) The certificate holder shall enclose the facility substation with appropriate fencing and
11 locked gates to protect the public from electrical hazards.
- 12 (40) The certificate holder shall not locate turbine towers within 450 feet of any residence. The
13 certificate holder shall not locate turbine towers within 450 feet of any public road, unless
14 the certificate holder demonstrates to the Department's satisfaction that a lesser setback is
15 consistent with the protection of public health and safety.
- 16 (41) The certificate holder shall construct turbine towers that are smooth steel structures with no
17 exterior ladders or access to the turbine blades and shall install locked access doors
18 accessible only to authorized personnel.
- 19 (42) During construction of the facility, the certificate holder shall follow manufacturers'
20 recommended handling instructions and procedures to prevent damage to towers or blades
21 that could lead to failure.
- 22 (43) During operation of the facility, the certificate holder shall have an operational safety-
23 monitoring program and shall inspect turbine blades on a regular basis for signs of wear.
24 The certificate holder shall repair turbine blades as necessary to protect public safety.
- 25 (44) During operation of the facility, the certificate holder shall install and maintain self-
26 monitoring devices on each turbine, connected to a fault annunciation panel or supervisory
27 control and data acquisition (SCADA) system at the O&M facility, to alert operators to
28 potential dangerous conditions, and the certificate holder shall remedy any dangerous
29 conditions immediately.
- 30 (45) During construction of the facility, the certificate holder shall install generator step-up
31 transformers at the base of each turbine tower in locked cabinets designed to protect the
32 public from electrical hazards and to avoid creation of artificial habitat for raptor prey.
- 33 (46) During construction of the facility, the certificate holder shall require that all on-site
34 construction contractors develop and implement a site health and safety plan that informs
35 on-site workers and others what to do in case of an emergency and that includes the
36 locations of fire extinguishers and nearby hospitals, important telephone numbers, and first
37 aid techniques.
- 38 (47) During operation of the facility, the certificate holder shall develop and implement a site
39 health and safety plan that informs on-site employees and others what to do in case of an

1 emergency and that includes the locations of fire extinguishers and nearby hospitals,
2 important telephone numbers, and first aid techniques.

I. SITING STANDARDS FOR WIND ENERGY FACILITIES, OAR 345-024-0015

3 (48) The certificate holder shall construct turbines on concrete foundations and shall cover the
4 ground within a minimum 10-foot radius with non-flammable material. The certificate
5 holder shall maintain the non-flammable pad area covering throughout operation of the
6 facility.

7 (49) During construction and operation of the facility, the certificate holder shall implement a
8 plan to control the introduction and spread of noxious weeds. The certificate holder shall
9 develop the weed control plan in consultation with the Sherman County Weed Control
10 District and the Department.

11 (50) During construction of the facility, to reduce the visual impact of the facility, the certificate
12 holder shall:

13 (a) Paint turbine towers, nacelles, rotors, meteorological towers, and cabinets containing
14 pad-mounted equipment with a low-reflectivity, neutral gray, white, off-white or earth tone
15 finish to reduce contrast with the surrounding background.

16 (b) Apply a low-reflectivity finish to the exterior of the O&M buildings and substation
17 equipment to control their visual integration into the surrounding background.

18 (c) With the exception of the turbine manufacturer's logo that may appear on turbine
19 nacelles, not allow any advertising to be used on any part of the facility or on any signs
20 posted at the facility. In addition, the certificate holder may place its logo on the nacelles of
21 not more than 20 percent of the wind turbines.

22 (d) Use only those signs required by law or for facility safety or security, except that the
23 certificate holder may erect a sign near the O&M facility or substation to identify the wind
24 energy facility.

25 [Amendments #2 and #3]

26 (51) The certificate holder shall design and construct the O&M buildings to be generally
27 consistent with the character of similar buildings used by commercial farmers or ranchers in
28 the area and shall paint the building in a neutral color to blend with the surrounding
29 background. [Amendment #3]

30 (52) The certificate holder shall not use exterior nighttime lighting except:

31 (a) The minimum turbine tower lighting required by the Federal Aviation Administration.

32 (b) Security lighting at the O&M buildings and substation, provided that such lighting is
33 shielded or directed downward to reduce glare.

34 (c) Minimum lighting necessary for repairs or emergencies.

35 (d) Minimum lighting necessary for nighttime construction. The certificate holder may
36 use lighting only at the work location and only directed downward to illuminate the work
37 area at the turbine base or upward from the base to illuminate the turbine tower;
38 construction lighting shall not be directed outward. The certificate holder shall use
39 nighttime lighting only with the approval of the owner of the property on which the work is
40 conducted and shall provide notice of nighttime construction to occupants of all residences
41 within one-half mile of the construction site.

42 [Amendment #3]

J. SITING STANDARDS FOR TRANSMISSION LINES, OAR 345-024-0090

- 1 (53) The certificate holder shall design the transmission lines so that alternating current electric
2 fields shall not exceed 9 kV per meter at one meter above the ground surface in areas
3 accessible to the public.
- 4 (54) The certificate holder shall design the transmission lines so that induced voltages resulting
5 from the transmission lines are as low as reasonably achievable.

K. THREATENED AND ENDANGERED SPECIES, OAR 345-022-0070

- 6 (55) Before beginning construction of the facility, the certificate holder shall deliver to the
7 Department surveys for threatened and endangered plant and wildlife species in newly
8 affected areas as identified in the ASC Supplement.
- 9 (56) If construction of the facility begins after 2006, the certificate holder shall review the
10 ONHIC and USFWS databases and consult with an expert designated by ODFW on an
11 annual basis before beginning construction to determine whether nesting bald eagles or
12 peregrine falcons have been documented to occur within two miles of the facility. The
13 certificate holder shall report the results of the database review and consultation to the
14 Department and to ODFW and, if there have been new documentations of nesting bald
15 eagles or peregrine falcons within two miles of the facility, the certificate holder shall
16 implement appropriate measures to protect the species from adverse impact, as approved by
17 the Department and ODFW.
- 18 (57) The certificate holder shall implement measures to mitigate impacts to sensitive wildlife
19 habitat during construction including, but not limited to, the following:
20 (a) Preparing maps to show sensitive areas, such as nesting or denning areas for sensitive
21 wildlife species, that are off limits to construction personnel.
22 (b) Ensuring that a qualified person instructs construction personnel to be aware of
23 wildlife in the area and to take precautions to avoid injuring or destroying wildlife or
24 significant wildlife habitat.
25 (c) Avoiding unnecessary road construction, temporary disturbance and vehicle use.

L. FISH AND WILDLIFE HABITAT, OAR 345-022-0060

- 26 (58) The certificate holder shall design and construct all aboveground transmission line support
27 structures following the practices suggested by the Avian Powerline Interaction Committee
28 (APLIC 1996, referenced in the site certificate application, p. P-33) and shall install anti-
29 perching devices on transmission pole tops and cross arms where the poles are located
30 within one-half mile of any wind turbine.
- 31 (59) The certificate holder may construct turbines and other facility components within the 500-
32 foot turbine corridors shown on Figures P-1 through P-10 of the site certificate application
33 and March 2006 supplement and within the “Permitted Areas” and “Amendment III Areas”
34 as shown on Figures 2, 2a, 2b and 2c of the Request for Amendment #3, subject to the
35 following requirements addressing potential habitat impact:
36 (a) The certificate holder shall not construct any facility components within areas of
37 Category 1 or Category 2 habitat and shall avoid temporary disturbance of Category 1 or
38 Category 2 habitat.

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

3 (c) Prior to constructing any turbines or permanent related or supporting facilities within
4 the northward extension of Corridor 3 shown on Figure 2a of the Request for Amendment
5 #3, the certificate holder shall provide the Department with maps and calculations
6 documenting the additional permanent impacts, if any, to Category 3 and Category 4 habitat
7 predicted to result from construction. If the construction would result in additional
8 permanent impacts, the certificate holder shall increase the area of mitigation for permanent
9 loss of Category 3 and Category 4 habitat as described in the Habitat Mitigation Plan
10 incorporated herein by Condition 63.

11 [Amendment #3]

12 (60) During construction, the certificate holder shall protect the area within a 1300-foot buffer
13 around any active nests of the following species during the sensitive period, as provided in
14 this condition:

Species	Sensitive Period	Early Release Date
Swainson's hawk	April 1 to August 15	May 31
Golden eagle	February 1 to August 31	May 31
Ferruginous hawk	March 15 to August 15	May 31
Burrowing owl	April 1 to August 15	July 15

15 The 1300-foot buffer may be reduced, with Department approval, if there is an adequate
16 physical barrier between the nest site and the construction impacts such that a 1300-foot
17 buffer proves to be excessive.

18 During the year in which construction of any phase occurs, the certificate holder shall use a
19 protocol approved by the Oregon Department of Fish and Wildlife (ODFW) to determine
20 whether there are any active nests of these species within a half-mile of any areas that
21 would be disturbed during construction. If a nest is occupied by any of these species after
22 the beginning of the sensitive period, the certificate holder shall not engage in high-impact
23 construction activities (activities that involve blasting, grading or other major ground
24 disturbance) or allow high levels of construction traffic within 1300 feet of the nest site, or
25 such lesser distance as may be approved by the Department in the event there is an adequate
26 physical barrier between the nest site and the construction impacts.

27 In addition, the certificate holder shall flag the boundaries of the 1300-foot buffer area, or
28 such lesser distance as may be approved by the Department in the event there is an adequate
29 physical barrier between the nest site and the construction impacts, and shall instruct
30 construction personnel to avoid any unnecessary activity within the buffer area. The
31 certificate holder shall direct a qualified biologist, approved by the Department, to observe
32 the active nest sites during the sensitive period for signs of disturbance and to notify the
33 Department of any non-compliance with this condition. The Department has approved the
34 qualifications of the four biologists identified in the Final Order on Amendment #2. The
35 certificate holder may select other qualified biologists to observe the nest sites, subject to
36 Department approval. If the biologist observes nest site abandonment or other adverse
37 impact to nesting activity, the certificate holder shall implement appropriate mitigation, in
38 consultation with ODFW and subject to the approval of the Department, unless the adverse
39 impact is clearly shown to have a cause other than construction activity. The certificate
40 holder may begin or resume high impact construction activities before the ending day of the

1 sensitive period if any known nest site is not occupied by the early release date. If a nest
2 site is occupied, then the certificate holder may begin or resume high-impact construction
3 before the ending day of the sensitive period with the approval of ODFW, after the young
4 are fledged. The certificate holder shall use a protocol approved by ODFW to determine
5 when the young are fledged (the young are independent of the core nest site). [Amendment #2]

6 (61) The certificate holder shall conduct wildlife monitoring and mitigation in accordance with
7 the Wildlife Monitoring and Mitigation Plan that is incorporated in the Final Order on
8 Amendment #2 as Attachment A and as may be amended from time to time. [Amendment #2]

9 (62) The certificate holder shall restore areas that are temporarily disturbed during construction
10 in accordance with the methods, monitoring procedures and success criteria set forth in the
11 Revegetation Plan that is incorporated in the Final Order on Amendment #2 as Attachment
12 B and as may be amended from time to time. [Amendment #2]

13 (63) Before beginning construction of the facility, the certificate holder shall acquire the legal
14 right to create, maintain and protect a habitat mitigation area for the life of the facility by
15 means of an outright purchase, conservation easement or similar conveyance and shall
16 provide a copy of the documentation to the Department. Within the habitat mitigation area,
17 the certificate holder shall improve the habitat quality in accordance with the Habitat
18 Mitigation Plan that is incorporated in the Final Order on Amendment #3 as Attachment C
19 and as may be amended from time to time. [Amendments #2 and #3]

20 (64) For the life of the project, the certificate holder shall provide to the appropriate staff of the
21 Confederated Tribes of the Warm Springs Reservation of Oregon the same annual
22 mitigation and monitoring reports it submits to the Department.

23 (65) For the life of the project, the certificate holder shall consult annually with the appropriate
24 staff of the Confederated Tribes of the Warm Springs Reservation of Oregon to discuss
25 noxious weed or other issues that may arise from the close proximity of the facility site and
26 tribal lands. The certificate holder shall provide a summary of that consultation in the
27 annual report it provides to the Department.

M. STRUCTURAL STANDARD, OAR 345-022-0020

28 (66) Before beginning construction of the facility, the certificate holder shall conduct a site-
29 specific geotechnical investigation and shall report its findings to the Oregon Department of
30 Geology & Mineral Industries (DOGAMI). The certificate holder shall conduct the
31 geotechnical investigation after consultation with DOGAMI and in accordance with the
32 Oregon Board of Geologists Examiners guidelines entitled: Guidelines for Engineering
33 Geology Reports and Site-Specific Seismic Hazard Report.

34 (67) The certificate holder shall design and construct the facility in accordance with
35 requirements set forth by the State of Oregon's Building Code Division and any other
36 applicable codes and design procedures.

37 (68) The certificate holder shall design, engineer and construct the facility to avoid dangers to
38 human safety presented by non-seismic hazards. As used in this condition, "non-seismic
39 hazards" include settlement, landslides, flooding and erosion.

N. HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES, OAR 345-022-0090

- 1 (69) Before beginning construction of any phase of the facility, the certificate holder shall
2 provide to the Department a map showing the final design locations of all components of
3 that phase of the facility and areas that would be temporarily disturbed during construction
4 and also showing the areas surveyed by CH2M Hill and Archaeological Investigations
5 Northwest, Inc. (AINW) in preparing the Cultural Resources Surveys for Biglow Canyon
6 Wind Farm included in the site certificate application as Attachment S-1 and in Request for
7 Amendment #2 as Attachment 15. The certificate holder shall hire qualified personnel to
8 conduct field investigation of all areas of permanent or temporary disturbance that CH2M
9 Hill and AINW did not previously survey and shall provide to the Department a written
10 report of the field investigation. If any significant historic, cultural or archaeological
11 resources are found during the field investigation, the certificate holder shall ensure that
12 construction and operation of the facility will have no impact on the resources. The
13 certificate holder shall instruct all construction personnel to avoid areas where the resources
14 were found and shall implement other appropriate measures to protect the resources.
15 [Amendment #2]
- 16 (70) The certificate holder shall ensure that a qualified person instructs construction personnel in
17 the identification of cultural resources.
- 18 (71) The certificate holder shall ensure that a qualified archaeologist is present on site during
19 any ground-disturbing activities, including grading and graveling; or, the certificate holder
20 shall implement an alternate monitoring procedure, including a testing strategy, as agreed to
21 in consultation with the Department, SHPO, and the tribes.
- 22 (72) The certificate holder shall ensure that construction personnel cease all ground-disturbing
23 activities in the immediate area if any archaeological or cultural resources are found during
24 construction of the facility until a qualified archaeologist can evaluate the significance of
25 the find. The certificate holder shall notify the Department and the State Historic
26 Preservation Office (SHPO) of the find. If the archaeologist determines that the resource is
27 significant, the certificate holder shall make recommendations to the Council for mitigation,
28 including avoidance or data recovery, in consultation with the Department, SHPO, and
29 other appropriate parties. The certificate holder shall not restart work in the affected area
30 until the certificate holder has demonstrated to the Department that it has complied with the
31 archaeological permit requirements administered by SHPO.
- 32 (73) The certificate holder shall ensure that construction personnel proceed carefully in the
33 vicinity of the mapped alignment of the Oregon Trail. If any intact physical evidence of the
34 trail is discovered, the certificate holder shall avoid any disturbance to the intact segments,
35 by redesign, re-engineering or restricting the area of construction activity. The certificate
36 holder shall promptly notify the Department and SHPO of the discovery. The certificate
37 holder shall consult with the Department and with SHPO to determine appropriate
38 mitigation measures.

O. PUBLIC SERVICES, OAR 345-022-0110

- 39 (74) During construction of the facility, the certificate holder and its contractors shall obtain all
40 water required for construction activities from off-site sources previously permitted for
41 such uses.

- 1 (75) Before beginning operation of the facility, the certificate holder shall have in operation a
2 well suitable for delivering water, not exceeding 5,000 gallons per day, for domestic use at
3 the facility's O&M buildings and, provided the rate of extraction would not exceed 5,000
4 gallons per day, blade-washing activities. The certificate holder shall not change the source
5 of water for the facility's domestic use without prior Council approval. [Amendment #3]
- 6 (76) During operation of the facility, the certificate holder and its contractors shall obtain all
7 water required for blade-washing activities from off-site sources previously permitted for
8 such uses or from the on-site well, provided such use of well water would not cause the rate
9 of extraction to exceed 5,000 gallons in any one-day period.
- 10 (77) Before beginning construction of the facility, the certificate holder shall develop a system
11 for monitoring state highways and local roads that would serve as transporter routes for
12 delivering equipment to the facility site for degradation, *e.g.*, major potholes, so that safe
13 travel paths may be maintained. The monitoring system shall include site inspection and
14 photographic cataloguing of existing road conditions so that pre-construction conditions can
15 be compared with conditions after construction has been completed. The certificate holder
16 shall coordinate monitoring methods and preferred mitigation efforts with Sherman County
17 Public Works and the Oregon Department of Transportation. [Amendment #1]
- 18 (78) After completing construction of the facility, the certificate holder shall restore state
19 highways and county roads affected by facility construction activities to at least their pre-
20 construction conditions, to the satisfaction of Sherman County Public Works and the
21 Oregon Department of Transportation.
- 22 (79) During construction of the facility, the certificate holder shall implement the following
23 measures to reduce traffic delays on county roads serving as transporter routes for delivery
24 of equipment to the facility site:
- 25 (a) Provide notice to adjacent landowners when construction takes place to help minimize
26 access disruptions;
 - 27 (b) Provide proper road signage and warnings of "Equipment on Road," "Truck Access,"
28 or "Road Crossings;"
 - 29 (c) Implement traffic diversion equipment, such as advance signage and pilot cars,
30 whenever possible when slow or oversized loads are being hauled;
 - 31 (d) Encourage carpooling for the construction workforce to reduce traffic volume;
 - 32 (e) Employ flaggers, as necessary, to direct traffic when large equipment is entering or
33 exiting public roads to minimize risk of accidents; and
 - 34 (f) Maintain at least one travel lane at all times so that roadways will not be closed to
35 traffic as a result of construction vehicles entering or exiting public roads.

P. WASTE MINIMIZATION, OAR 345-022-0120

- 36 (80) The certificate holder shall use hazardous materials in a manner that protects public health,
37 safety and the environment and shall comply with applicable local, state and federal
38 environmental laws and regulations.
- 39 (81) If a spill or release of hazardous materials occurs during construction or operation of the
40 facility, the certificate holder shall notify the Department within 72 hours and shall clean up
41 the spill or release and dispose of any contaminated soil or other materials according to
42 applicable regulations. The certificate holder shall ensure that spill kits containing items

1 such as absorbent pads are located on equipment and storage facilities to respond to
2 accidental spills and shall instruct employees handling hazardous materials in the proper
3 handling, storage and cleanup of these materials.

4 (82) During construction of the facility, the certificate holder shall provide portable toilets for
5 on-site sewage handling and shall ensure that the portable toilets are pumped and cleaned
6 regularly by a licensed contractor that is qualified to pump and clean portable toilet
7 facilities.

8 (83) During operation of the facility, the certificate holder shall discharge sanitary wastewater
9 generated at the O&M buildings to a licensed on-site septic system in compliance with
10 county permit requirements. The certificate holder shall design the septic system with a
11 capacity that is less than 2,500 gallons per day. [Amendment #3]

12 (84) During construction of the facility, the certificate holder shall implement a waste
13 management plan that includes but is not limited to the following measures:

14 (a) Training employees to minimize and recycle solid waste;

15 (b) Minimizing the generation of wastes from construction through detailed estimating of
16 materials needs and through efficient construction practices;

17 (c) Recycling steel and other metal scrap;

18 (d) Recycling wood waste;

19 (e) Recycling packaging wastes, such as paper and cardboard;

20 (f) Collecting non-recyclable waste for transport to a landfill by a licensed waste hauler;
21 and

22 (g) Segregating all hazardous wastes, such as used oil, oily rags and oil-absorbent
23 materials, mercury-containing lights and lead-acid and nickel-cadmium batteries for
24 disposal by a licensed firm specializing in the proper recycling or disposal of hazardous
25 wastes.

26 (85) The certificate holder may dispose of waste concrete on site with the permission of the
27 landowner and in accordance with OAR 340-093-0080 and other applicable regulations.
28 The certificate holder shall dispose of waste concrete on site by placing the material in an
29 excavated hole, covering the concrete with at least 3 feet of topsoil, and grading the area to
30 match existing contours. If the waste concrete is not disposed of on site, the certificate
31 holder shall arrange for proper disposal in a licensed landfill.

32 (86) During construction of the facility, the certificate holder shall ensure that the wash down of
33 concrete trucks occurs only at a contractor-owned batch plant or at tower foundation
34 locations. If such wash down occurs at tower foundation locations, then the certificate
35 holder shall ensure that wash down wastewater does not run off the construction site into
36 otherwise undisturbed areas and that the wastewater is disposed of on backfill piles and
37 buried underground with the backfill over the tower foundation.

38 (87) During operation of the facility, the certificate holder shall implement a waste management
39 plan that includes but is not limited to the following measures:

40 (a) Training employees to minimize and recycle solid waste;

41 (b) Recycling paper products, metals, glass and plastics;

42 (c) Collecting non-recyclable waste for transport to a landfill by a licensed waste hauler;
43 and

1 (d) Segregating all hazardous wastes, such as used oil, oily rags and oil-absorbent
2 materials, mercury-containing lights and lead-acid and nickel-cadmium batteries for
3 disposal by a licensed firm specializing in the proper recycling or disposal of hazardous
4 wastes.

- 5 (88) During operation of the facility, the certificate holder may engage in blade-washing
6 activities but shall ensure that these activities do not cause runoff of washwater from the
7 site or discharges to surface waters, storm sewers or dry wells. The certificate holder shall
8 not use acids, bases or metal brighteners with the wash water. The certificate may use
9 biodegradable, phosphate-free cleaners sparingly. [Amendment #2]

Q. NOISE CONTROL REGULATIONS, OAR 340-035-0035

10 (89) To reduce noise impacts at nearby residential areas, the certificate holder shall:

- 11 (a) Confine the noisiest operation of heavy construction equipment to the daylight hours;
12 (b) Require contractors to install and maintain exhaust mufflers on all combustion
13 engine-powered equipment; and
14 (c) Establish a complaint response system at the construction manager's office to address
15 noise complaints.

16 (90) If the GE 1.5-MW turbines (for which the certificate holder states the maximum sound
17 power level warranted by the manufacturer is 104 dBA) or the GE 3.0-MW turbines
18 (provided the certificate holder is able to demonstrate, by means of the manufacturer's
19 warranty or other means acceptable to the Department, that the maximum sound power
20 level of the GE 3.0-MW turbine is 106 dBA) will be used at the facility, before beginning
21 construction, the certificate holder shall present information demonstrating to the
22 satisfaction of the Department that the following requirements have been met at the 24
23 identified noise sensitive properties. The identified noise sensitive properties are the
24 properties listed in Table 12 of the Final Order on the Application and further identified in
25 the Final Order on Amendment #2, except for property R14:

26 (a) For any identified noise sensitive property where the previously-predicted maximum
27 hourly L_{50} noise level caused by the facility would equal or exceed 50 dBA, the certificate
28 holder shall identify the final design locations of all turbines to be built and perform a noise
29 analysis demonstrating, in accordance with OAR 340-035-0035(1)(b)(B)(iii)(IV), that the
30 total hourly L_{50} noise level generated by the facility would not exceed 50 dBA at the
31 appropriate measurement point. The certificate holder shall perform the noise analysis using
32 the noise model, CADNA/A by DataKustik GmbH of Munich, Germany, and shall assume
33 the following input parameters:

- 34 • The maximum sound power level of turbines and substation transformers based on
35 the manufacturers' warranty or confirmed by other means acceptable to the
36 Department
- 37 • The exact locations of the proposed turbines
- 38 • The environmental factors included in the original noise analysis, *i.e.*, the
39 temperature, relative humidity, barrier effects and ground effects used in the original
40 analysis. If the certificate holder has cause to believe the environmental factors
41 included in the original noise analysis are no longer valid for a particular receiver, the
42 certificate holder shall perform the noise analysis for that receiver using both the

1 environmental factors included in the original noise analysis and the environmental
2 factors the certificate holder now believes to be applicable to that receiver.

3 (b) Where the previously-predicted hourly L₅₀ noise levels caused by the facility would
4 exceed 36 dBA but not exceed 50 dBA at any identified noise sensitive property, the
5 certificate holder has obtained a legally effective easement or real covenant pursuant to
6 which the owner of the property authorizes the certificate holder's operation of the facility
7 to increase ambient statistical noise levels L₁₀ and L₅₀ by more than 10 dBA at the
8 appropriate measurement point. A legally effective easement or real covenant shall: (i)
9 include a legal description of the burdened property (the noise sensitive property); (ii) be
10 recorded in the real property records of the county; (iii) expressly benefit the certificate
11 holder; (iv) expressly run with the land and bind all future owners, lessees or holders of any
12 interest in the burdened property; and (v) not be subject to revocation without the certificate
13 holder's written approval.

14 (c) If, for any identified noise sensitive property where the previously-predicted hourly
15 L₅₀ noise levels caused by the facility would exceed 36 dBA but not exceed 50 dBA, the
16 certificate holder has not obtained a legally effective easement or real covenant as described
17 in (b) above, the certificate holder shall identify the final design locations of all turbines to
18 be built and perform a noise analysis demonstrating, in accordance with OAR 340-035-
19 0035(1)(b)(B)(iii)(IV), that the total noise generated by the facility (including the noise
20 from turbines and substation transformers) would meet the ambient noise degradation test at
21 the appropriate measurement point on those noise sensitive properties. The certificate
22 holder shall perform the noise analysis using the noise model, CADNA/A by DataKustik
23 GmbH of Munich, Germany, and shall assume the following input parameters:

- 24 • The maximum sound power level of turbines and substation transformers based on
25 the manufacturers' warranty or confirmed by other means acceptable to the
26 Department
- 27 • The exact locations of the proposed turbines
- 28 • The environmental factors included in the original noise analysis, *i.e.*, the
29 temperature, relative humidity, barrier effects and ground effects used in the original
30 analysis. If the certificate holder has cause to believe the environmental factors
31 included in the original noise analysis are no longer valid for a particular receiver, the
32 certificate holder shall perform the noise analysis for that receiver using both the
33 environmental factors included in the original noise analysis and the environmental
34 factors the certificate holder now believes to be applicable to that receiver.

35 [Amendment #2]

36 (91) Before beginning construction using turbines other than GE 1.5-MW or GE 3.0-MW
37 turbines, the certificate holder shall:

38 (a) Identify the final design locations of all turbines to be built, perform a noise analysis
39 for all turbines and substation transformers, and generate a new table listing each noise
40 sensitive property, as defined in OAR 340-035-0015(38), and the predicted maximum
41 hourly L₅₀ noise level at each noise sensitive property. The certificate holder shall perform
42 the noise analysis using the noise model, CADNA/A by DataKustik GmbH of Munich,
43 Germany, and shall assume the following input parameters:

- 44 • The maximum sound power level of turbines and substation transformers based on
45 the manufacturers' warranty or confirmed by other means acceptable to the
46 Department

- 1 • The exact locations of the proposed turbines
- 2 • The environmental factors included in the original noise analysis, i.e., the
- 3 temperature, relative humidity, barrier effects and ground effects used in the original
- 4 analysis. If the certificate holder has cause to believe the environmental factors
- 5 included in the original noise analysis are no longer valid for a particular receiver, the
- 6 certificate holder shall perform the noise analysis for that receiver using both the
- 7 environmental factors included in the original noise analysis and the environmental
- 8 factors the certificate holder now believes to be applicable to that receiver.

9 (b) Demonstrate to the satisfaction of the Department that the requirements of paragraphs
10 (a), (b) and (c) of Conditions (90) have been met for each noise sensitive property listed on
11 the new table generated under paragraph (a) of this condition, except for any new
12 development of noise sensitive property that occurs after the effective date of the Second
13 Amended Site Certificate.
14 [Amendment #2]

R. REMOVAL-FILL LAW

15 [No conditions]

S. GROUND WATER ACT

16 [No conditions]

T. PUBLIC HEALTH AND SAFETY

17 (92) During operation of the facility, the certificate holder shall maintain built-in fire prevention
18 measures in each turbine that would shut down the turbine automatically before mechanical
19 problems create excess heat or sparks.

20 (93) During construction and operation of the facility, the certificate holder shall develop and
21 implement fire management plans in consultation with local fire control authorities to
22 minimize the risk of fire and to respond appropriately to any fires that occur on the facility
23 site. In developing the fire management plans, the certificate holder should take into
24 account the dry nature of the region and should address risks on a seasonal basis.

25 (94) During construction and operation of the facility, the certificate holder shall ensure that
26 each on-site company vehicle contains a fire extinguisher, water spray can, shovel,
27 emergency response procedures book, and two-way radio for immediate communication
28 with the O&M facility.

29 (95) During construction of the facility, the certificate holder shall clear vegetation from a
30 laydown area adjacent to each wind turbine where welding, cutting, grinding, or other
31 flame- or spark-producing operations are likely to occur.

32 (96) Upon beginning operation of the facility, the certificate holder shall provide to all local fire
33 departments maps of the facility site. During operation of the facility, the certificate holder
34 shall provide to all local fire departments the names and telephone numbers of facility
35 personnel available to respond on a 24-hour basis in case of an emergency on the facility
36 site.

- 1 (97) During operation of the facility, the certificate holder shall ensure that all on-site employees
2 receive annual fire prevention and response training by qualified instructors or members of
3 the local fire department and that all employees are instructed to keep vehicles on roads and
4 off dry grassland, except when off-road operation is required for emergency purposes.
- 5 (98) During operation of the facility, the certificate holder shall comply with the written fire
6 protection recommendations of the Fire Chief of the applicable Rural Fire Protection
7 District and shall promptly provide to the Department any correspondence from the Fire
8 Chief regarding those recommendations. [Amendment #3]
- 9 (99) The certificate holder shall take reasonable steps to reduce or manage exposure to
10 electromagnetic fields (EMF), consistent with Council findings presented in the "Report of
11 EMF Committee to the Energy Facility Siting Council," March 30, 1993, and subsequent
12 findings. Effective on the date of this site certificate, the certificate holder shall provide
13 information to the public, upon request, about EMF levels associated with the energy
14 facility and related transmission lines.
- 15 (100) At least 30 days before beginning preparation of detailed design and specifications for the
16 electrical transmission lines, the certificate holder shall consult with the Oregon Public
17 Utility Commission staff to ensure that its designs and specifications are consistent with
18 applicable codes and standards.

V. CONDITIONS REQUIRED BY COUNCIL RULES

19 This section lists conditions specifically required by OAR 345-027-0020 (Mandatory
20 Conditions in Site Certificates), OAR 345-027-0028 (Monitoring Conditions), and OAR Chapter
21 345, Division 26 (Construction and Operation Rules for Facilities). All references to the Office
22 of Energy or Office shall be construed to refer to the Department of Energy. These conditions
23 should be read together with the specific facility conditions included in Sections IV, VI and VII
24 to ensure compliance with the siting standards of OAR Chapter 345, Divisions 22 and 24, and to
25 protect the public health and safety. The certificate holder shall comply with all site certificate
26 conditions. [Amendment #3]

27 The Council recognizes that many specific tasks related to the design, construction,
28 operation and retirement of the facility will be undertaken by the certificate holder's agents or
29 contractors. Nevertheless, the certificate holder is responsible for ensuring compliance with all
30 provisions of the site certificate.

31 (101) OAR 345-027-0020(1): The Council shall not change the conditions of the site certificate
32 except as provided for in OAR Chapter 345, Division 27.

33 (102) OAR 345-027-0020(2): The certificate holder shall submit a legal description of the site
34 to the Department of Energy within 90 days after beginning operation of the facility. The
35 legal description required by this rule means a description of metes and bounds or a
36 description of the site by reference to a map and geographic data that clearly and
37 specifically identifies the outer boundaries that contain all parts of the facility. [Amendment
38 #3]

39 (103) OAR 345-027-0020(3): The certificate holder shall design, construct, operate and retire
40 the facility:

- 41 (a) Substantially as described in the site certificate;

1 (b) In compliance with the requirements of ORS Chapter 469, applicable Council rules,
2 and applicable state and local laws, rules and ordinances in effect at the time the site
3 certificate is issued; and

4 (c) In compliance with all applicable permit requirements of other state agencies.

5 (104) OAR 345-027-0020(4): The certificate holder shall begin and complete construction of
6 the facility by the dates specified in the site certificate.

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

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

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

24 [Amendment #3]

25 (106) OAR 345-027-0020(6): If the Council requires mitigation based on an affirmative finding
26 under any standards of Division 22 or Division 24 of OAR Chapter 345, the certificate
27 holder shall consult with affected state agencies and local governments designated by the
28 Council and shall develop specific mitigation plans consistent with Council findings under
29 the relevant standards. The certificate holder must submit the mitigation plans to the Office
30 and receive Office approval before beginning construction or, as appropriate, operation of
31 the facility. [Amendment #3]

32 (107) OAR 345-027-0020(7): The certificate holder shall prevent the development of any
33 conditions on the site that would preclude restoration of the site to a useful, non-hazardous
34 condition to the extent that prevention of such site conditions is within the control of the
35 certificate holder.

36 (108) OAR 345-027-0020(8): Before beginning construction of the facility, the certificate
37 holder shall submit to the State of Oregon, through the Council, a bond or letter of credit in
38 a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous
39 condition. The certificate holder shall maintain a bond or letter of credit in effect at all
40 times until the facility has been retired. The Council may specify different amounts for the
41 bond or letter of credit during construction and during operation of the facility. [Amendment
42 #3]

43 (109) OAR 345-027-0020(9): The certificate holder shall retire the facility if the certificate
44 holder permanently ceases construction or operation of the facility. The certificate holder

1 shall retire the facility according to a final retirement plan approved by the Council, as
2 described in OAR 345-027-0110. The certificate holder shall pay the actual cost to restore
3 the site to a useful, non-hazardous condition at the time of retirement, notwithstanding the
4 Council's approval in the site certificate of an estimated amount required to restore the site.

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

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

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

20 (113) OAR 345-027-0020(13): The certificate holder shall notify the Department, the State
21 Building Codes Division and the Department of Geology and Mineral Industries promptly
22 if site investigations or trenching reveal that conditions in the foundation rocks differ
23 significantly from those described in the application for a site certificate. After the
24 Department receives the notice, the Council may require the certificate holder to consult
25 with the Department of Geology and Mineral Industries and the Building Codes Division
26 and to propose mitigation actions. [Amendment #3]

27 (114) OAR 345-027-0020(14): The certificate holder shall notify the Department, the State
28 Building Codes Division and the Department of Geology and Mineral Industries promptly
29 if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity
30 of the site. [Amendment #3]

31 (115) OAR 345-027-0020(15): Before any transfer of ownership of the facility or ownership of
32 the site certificate holder, the certificate holder shall inform the Department of the proposed
33 new owners. The requirements of OAR 345-027-0100 apply to any transfer of ownership
34 that requires a transfer of the site certificate. [Amendment #3]

35 (116) OAR 345-027-0020(16): If the Council finds that the certificate holder has permanently
36 ceased construction or operation of the facility without retiring the facility according to a
37 final retirement plan approved by the Council, as described in OAR 345-027-0110, the
38 Council shall notify the certificate holder and request that the certificate holder submit a
39 proposed final retirement plan to the Office within a reasonable time not to exceed 90 days.
40 If the certificate holder does not submit a proposed final retirement plan by the specified
41 date, the Council may direct the Department to prepare a proposed a final retirement plan
42 for the Council's approval. Upon the Council's approval of the final retirement plan, the
43 Council may draw on the bond or letter of credit described in OAR 345-027-0020(8) to
44 restore the site to a useful, non-hazardous condition according to the final retirement plan,

1 in addition to any penalties the Council may impose under OAR Chapter 345, Division 29.
2 If the amount of the bond or letter of credit is insufficient to pay the actual cost of
3 retirement, the certificate holder shall pay any additional cost necessary to restore the site to
4 a useful, non-hazardous condition. After completion of site restoration, the Council shall
5 issue an order to terminate the site certificate if the Council finds that the facility has been
6 retired according to the approved final retirement plan. [Amendment #3]

7 (117) [Condition removed by Amendment #3]

8 (118) OAR 345-027-0023(4): If the facility includes any transmission line under Council
9 jurisdiction:

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

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

17 [Amendment #3]

18 (119) OAR 345-027-0023(5): If the proposed energy facility is a pipeline or a transmission line
19 or has, as a related or supporting facility, a pipeline or transmission line, the Council shall
20 specify an approved corridor in the site certificate and shall allow the certificate holder to
21 construct the pipeline or transmission line anywhere within the corridor, subject to the
22 conditions of the site certificate. If the applicant has analyzed more than one corridor in its
23 application for a site certificate, the Council may, subject to the Council's standards,
24 approve more than one corridor. [Amendment #3]

25 (120) OAR 345-027-0028: The following general monitoring conditions apply:

26 (a) The certificate holder shall consult with affected state agencies, local governments
27 and tribes and shall develop specific monitoring programs for impacts to resources
28 protected by the standards of Divisions 22 and 24 of OAR Chapter 345 and resources
29 addressed by applicable statutes, administrative rules and local ordinances. The certificate
30 holder must submit the monitoring programs to the Department of Energy and receive
31 Department approval before beginning construction or, as appropriate, operation of the
32 facility.

33 (b) The certificate holder shall implement the approved monitoring programs described in
34 section (a) and monitoring programs required by permitting agencies and local
35 governments.

36 (c) For each monitoring program described in sections (a) and (b), the certificate holder
37 shall have quality assurance measures approved by the Department before beginning
38 construction or, as appropriate, before beginning commercial operation.

39 (d) If the certificate holder becomes aware of a significant environmental change or
40 impact attributable to the facility, the certificate holder shall, as soon as possible, submit a
41 written report to the Department describing the impact on the facility and any affected site
42 certificate conditions.

43 [Amendment #3]

1 (121) OAR 345-026-0048: Following receipt of the site certificate or an amended site
2 certificate, the certificate holder shall implement a plan that verifies compliance with all site
3 certificate terms and conditions and applicable statutes and rules. As a part of the
4 compliance plan, to verify compliance with the requirement to begin construction by the
5 date specified in the site certificate, the certificate holder shall report promptly to the
6 Department of Energy when construction begins. Construction is defined in OAR 345-001-
7 0010. In reporting the beginning of construction, the certificate holder shall describe all
8 work on the site performed before beginning construction, including work performed before
9 the Council issued the site certificate, and shall state the cost of that work. For the purpose
10 of this exhibit, “work on the site” means any work within a site or corridor, other than
11 surveying, exploration or other activities to define or characterize the site or corridor. The
12 certificate holder shall document the compliance plan and maintain it for inspection by the
13 Department or the Council. [Amendment #3]

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

16 (a) General reporting obligation for energy facilities under construction or operating:

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

25 (ii) By April 30 of each year after beginning construction, the certificate holder shall
26 submit an annual report to the Department addressing the subjects listed in this Condition.
27 The Council Secretary and the certificate holder may, by mutual agreement, change the
28 reporting date.

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

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

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

40 (ii) Reliability and Efficiency of Power Production: For electric power plants,
41 the plant availability and capacity factors for the reporting year. The certificate
42 holder shall describe any equipment failures or plant breakdowns that had a
43 significant impact on those factors and shall describe any actions taken to prevent
44 recurrence of such problems;

45 (iii) Fuel Use: For thermal power plants:

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

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

8 (iv) Status of Surety Information: Documentation demonstrating that bonds or letters
9 of credit as described in the site certificate are in full force and effect and will remain in full
10 force and effect for the term of the next reporting period;

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

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

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

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

26 [Amendment #3]

27 (123) [Condition removed by Amendment #3]

28 (124) OAR 345-026-0105: The certificate holder and the Department of Energy shall exchange
29 copies of all correspondence or summaries of correspondence related to compliance with
30 statutes, rules and local ordinances on which the Council determined compliance, except for
31 material withheld from public disclosure under state or federal law or under Council rules.
32 The certificate holder may submit abstracts of reports in place of full reports; however, the
33 certificate holder shall provide full copies of abstracted reports and any summarized
34 correspondence at the request of the Department. [Amendment #3]

35 (125) OAR 345-026-0170: The certificate holder shall notify the Department of Energy within
36 72 hours of any occurrence involving the facility if:

37 (a) There is an attempt by anyone to interfere with its safe operation;

38 (b) A natural event such as an earthquake, flood, tsunami or tornado, or a human-caused
39 event such as a fire or explosion affects or threatens to affect the public health and safety or
40 the environment; or

41 (c) There is any fatal injury at the facility.

42 [Amendment #3]

VI. CONDITIONS RELATING TO AMENDMENT #2

1 (126) Prior to any disturbance in the areas of the site added in the Final Order for Amendment
2 #2, the certificate holder shall deliver to the Department the results of a spring survey of
3 Crossing G, conducted during the appropriate bloom time for Northern wormwood and
4 Henderson’s ricegrass. If Northern wormwood or any other protected rare plant species are
5 observed during the spring survey, the certificate holder shall ensure that construction and
6 operation of the facility will have no impact on the rare plant habitat. [Amendment #2]

7 (127) The certificate holder shall avoid any disturbance, including the placement of poles for
8 the collector line, within 25 feet of the stream channel in the area identified as Crossing G
9 in the Request for Amendment #2 and within a wetland area identified as “POWHX” on
10 Figure J-1 of the site certificate application. [Amendment #2]

VII. CONDITIONS RELATING TO AMENDMENT #3

11 (128) With respect to any turbine constructed within a micrositing corridor approved by the
12 Council after November 21, 2007, the certificate holder shall not locate such turbine within
13 the setback prescribed by Section 4 of the Sherman County Wind Power Set Back
14 Ordinance (Ordinance No. 39-2007) unless the Council has approved a variance to such
15 setback for the turbine or the certificate holder has negotiated a setback agreement with the
16 affected adjacent property owner and wind project developer. [Amendment #3]

17 (129) The certificate holder shall avoid any disturbance within 25 feet of the stream channel in
18 the area identified as “Stream Crossing H” in the Request for Amendment #3 and shall
19 install any collector line through the area by tunneling or drilling beneath the stream
20 channel. [Amendment #3]

VIII. SUCCESSORS AND ASSIGNS

21 To transfer this site certificate, or any portion thereof, or to assign or dispose of it in any
22 other manner, directly or indirectly, the certificate holder shall comply with OAR 345-027-0100.

IX. SEVERABILITY AND CONSTRUCTION

23 If any provision of this agreement and certificate is declared by a court to be illegal or in
24 conflict with any law, the validity of the remaining terms and conditions shall not be affected,
25 and the rights and obligations of the parties shall be construed and enforced as if the agreement
26 and certificate did not contain the particular provision held to be invalid. In the event of a
27 conflict between the conditions contained in this site certificate and the Council’s final order, the
28 conditions contained in this site certificate shall control.

X. GOVERNING LAW AND FORUM

29 This site certificate shall be governed by the laws of the State of Oregon. Any litigation
30 or arbitration arising out of this agreement shall be conducted in an appropriate forum in Oregon.

XI. EXECUTION

31 This site certificate may be executed in counterparts and will become effective upon
32 signature by the Chair of the Energy Facility Siting Council and the authorized representative of
33 the certificate holder. [Amendment #1]

1 **IN WITNESS WHEREOF**, this site certificate has been executed by the State of Oregon, acting
2 by and through its Energy Facility Siting Council, and by Portland General Electric Company.
3 [Amendment #1]

ENERGY FACILITY SITING COUNCIL

PORTLAND GENERAL ELECTRIC
COMPANY

By: _____
Robert Shiprack, Chair
Oregon Energy Facility Siting Council

By: _____
Print: _____

Date: _____

Date: _____