

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

**First Amended Site Certificate
for
Shepherds Flat South**

March 12, 2010

The Oregon Energy Facility Siting Council
SITE CERTIFICATE FOR SHEPHERDS FLAT SOUTH

I. INTRODUCTION

1 The Oregon Energy Facility Siting Council (Council) issues this site certificate for the
2 Shepherds Flat South (the facility) in the manner authorized under ORS Chapter 469. This site
3 certificate is a binding agreement between the State of Oregon (State), acting through the
4 Council, and Horseshoe Bend Wind, LLC (certificate holder) authorizing the certificate holder to
5 construct and operate the facility in Gilliam County and Morrow County, Oregon. [Amendment #1
6 for the Shepherds Flat Wind Farm (SFWF)]

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, incorporated herein by
9 this reference: (a) the Council's *Final Order on the Application for the Shepherds Flat Wind*
10 *Farm* issued on July 25, 2008, (b) the *Final Order on Amendment #1 for the Shepherds Flat*
11 *Wind Farm*, and (c) the *Final Order on Amendment #1*. In interpreting this site certificate, any
12 ambiguity will be clarified by reference to the following, in order of priority: (1) this First
13 Amended Site Certificate, (2) the *Final Order on Amendment #1*, (3) the *Final Order on*
14 *Amendment #1 for the Shepherds Flat Wind Farm*, (4) the *Final Order on the Application for the*
15 *Shepherds Flat Wind Farm* and (5) the record of the proceedings that led to the Final Orders on
16 the Application and Amendment #1 for the Shepherds Flat Wind Farm. [Amendment #1 (SFWF);
17 Amendment #1]

18 [Text added by Amendment #1 (SFWF) was removed by Amendment #1].

19 The definitions in ORS 469.300 and OAR 345-001-0010 apply to terms used in this site
20 certificate, except where otherwise stated or where the context clearly indicates otherwise.

II. SITE CERTIFICATION

- 21 1. To the extent authorized by state law and subject to the conditions set forth herein, the State
22 authorizes the certificate holder to construct, operate and retire a wind energy facility,
23 together with certain related or supporting facilities, at the site in Gilliam County and
24 Morrow County, Oregon, as described in Section III of this site certificate. ORS 469.401(1).
- 25 2. This site certificate is effective until it is terminated under OAR 345-027-0110 or the rules in
26 effect on the date that termination is sought or until the site certificate is revoked under ORS
27 469.440 and OAR 345-029-0100 or the statutes and rules in effect on the date that revocation
28 is ordered. ORS 469.401(1).
- 29 3. This site certificate does not address, and is not binding with respect to, matters that were not
30 addressed in the Council's Final Orders on the Application and Amendment #1 for the
31 Shepherds Flat Wind Farm and in the *Final Order on Amendment #1*. Such matters include,
32 but are not limited to: building code compliance, wage, hour and other labor regulations,
33 local government fees and charges and other design or operational issues that do not relate to
34 siting the facility (ORS 469.401(4)) and permits issued under statutes and rules for which the
35 decision on compliance has been delegated by the federal government to a state agency other
36 than the Council. 469.503(3). [Amendment #1 (SFWF); Amendment #1]

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

III. DESCRIPTION

1. The Facility

(a) The Energy Facility

27 The energy facility is an electric power generating facility with an average electric
28 generating capacity of up to 97 megawatts and a peak generating capacity of not more than 290
29 megawatts that produces power from wind energy. The facility consists of not more than 116
30 wind turbines. The energy facility is described further in the *Final Order on Amendment #1 for*
31 *the Shepherds Flat Wind Farm* and in the *Final Order on Amendment #1*. [Amendment #1 (SFWF);
32 Amendment #1]

(b) Related or Supporting Facilities

33 The facility includes the following related or supporting facilities described below and in
34 greater detail in the *Final Order on Amendment #1 for the Shepherds Flat Wind Farm* and in the
35 *Final Order on Amendment #1*:

- 36 • Power Collection System
- 37 • Collector Substation

- 1 • Meteorological towers
- 2 • Field workshop
- 3 • Control system
- 4 • Access roads
- 5 • Additional construction areas

6 [Amendment #1 (SFWF); Amendment #1]

7 **Power Collection System**

8 A power collection system operating at 34.5 kilovolts (kV) transports power from each
9 turbine to a collector substation. To the extent practicable, the collection system is installed
10 underground at a depth of at least three feet. Segments of the collector system are aboveground.
11 Aboveground segments are installed on single-pole, cross-arm structures. [Amendment #1]

12 **Collector Substations and Interconnection**

13 The facility includes a collector substation. The facility includes a 230-kV transmission
14 line between the substation and the interconnection site. The interconnection site is located at the
15 Bonneville Power Administration Slatt Switching Station. [Amendment #1 (SFWF)]

16 **Meteorological Towers**

17 The facility includes two permanent meteorological (met) towers. [Amendment #1 (SFWF)]

18 **Field Workshop**

19 The facility includes a field workshop. Including fenced areas, the field workshop
20 occupies about 1.4 acres. [Amendment #1 (SFWF)]

21 **Control System**

22 A fiber optic communications network links the control panels within each wind turbine
23 to a host computer located in the field workshop. Supervisory, Control and Data Acquisition
24 (SCADA) systems at the field workshop collect operating and performance data from the
25 turbines and the facility's met towers. [Amendment #1 (SFWF)]

26 **Access Roads**

27 The facility includes up to 27.5 miles of new roads that provide access to the turbine
28 strings. The access roads connect to graveled turbine turnouts at the base of each turbine.
29 [Amendment #1 (SFWF); Amendment #1]

30 **Temporary Construction Areas**

31 During construction, the facility includes temporary laydown areas used to stage
32 construction and store supplies and equipment. The facility includes construction crane paths to
33 move construction cranes between turbine strings.

2. Location of the Facility

34 The facility is located in Morrow County and Gilliam County south of Interstate
35 Highway 84 and east of Arlington, Oregon, between State Highways 19 and 74. The facility is
36 located entirely on private land subject to long-term wind energy leases. [Amendment #1 (SFWF)]

IV. CONDITIONS REQUIRED BY COUNCIL RULES

1 This section lists conditions required by OAR 345-027-0020 (Mandatory Conditions in
2 Site Certificates), OAR 345-027-0023 (Site Specific Conditions), OAR 345-027-0028
3 (Monitoring Conditions) and OAR Chapter 345, Division 26 (Construction and Operation Rules
4 for Facilities). These conditions should be read together with the specific facility conditions
5 listed in Section V to ensure compliance with the siting standards of OAR Chapter 345,
6 Divisions 22 and 24, and to protect the public health and safety. In these conditions, the
7 definitions in OAR 345-001-0010 apply.

8 The obligation of the certificate holder to report information to the Department or the
9 Council under the conditions listed in this section and in Section V is subject to the provisions of
10 ORS 192.502 *et seq.* and ORS 469.560. To the extent permitted by law, the Department and the
11 Council will not publicly disclose information that may be exempt from public disclosure if the
12 certificate holder has clearly labeled such information and stated the basis for the exemption at
13 the time of submitting the information to the Department or the Council. If the Council or the
14 Department receives a request for the disclosure of the information, the Council or the
15 Department, as appropriate, will make a reasonable attempt to notify the certificate holder and
16 will refer the matter to the Attorney General for a determination of whether the exemption is
17 applicable, pursuant to ORS 192.450.

18 In addition to these conditions, the site certificate holder is subject to all conditions and
19 requirements contained in the rules of the Council and in local ordinances and state law in effect
20 on the date the certificate is executed. Under ORS 469.401(2), upon a clear showing of a
21 significant threat to the public health, safety or the environment that requires application of later-
22 adopted laws or rules, the Council may require compliance with such later-adopted laws or rules.

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

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

29 2 OAR 345-027-0020(2): The certificate holder shall submit a legal description of the site to
30 the Department of Energy within 90 days after beginning operation of the facility. The legal
31 description required by this rule means a description of metes and bounds or a description
32 of the site by reference to a map and geographic data that clearly and specifically identifies
33 the outer boundaries that contain all parts of the facility.

34 3 OAR 345-027-0020(3): The certificate holder shall design, construct, operate and retire the
35 facility:

36 (a) Substantially as described in the site certificate;

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

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

41 4 OAR 345-027-0020(4): The certificate holder shall begin and complete construction of the
42 facility by the dates specified in the site certificate. (*See Conditions 24 and 25.*)

- 1 5 OAR 345-027-0020(5): Except as necessary for the initial survey or as otherwise allowed
2 for wind energy facilities, transmission lines or pipelines under this section, the certificate
3 holder shall not begin construction, as defined in OAR 345-001-0010, or create a clearing
4 on any part of the site until the certificate holder has construction rights on all parts of the
5 site. For the purpose of this rule, “construction rights” means the legal right to engage in
6 construction activities. For wind energy facilities, transmission lines or pipelines, if the
7 certificate holder does not have construction rights on all parts of the site, the certificate
8 holder may nevertheless begin construction, as defined in OAR 345-001-0010, or create a
9 clearing on a part of the site if the certificate holder has construction rights on that part of
10 the site and:
11 (a) The certificate holder would construct and operate part of the facility on that part of
12 the site even if a change in the planned route of the transmission line or pipeline occurs
13 during the certificate holder’s negotiations to acquire construction rights on another part of
14 the site; or
15 (b) The certificate holder would construct and operate part of a wind energy facility on
16 that part of the site even if other parts of the facility were modified by amendment of the
17 site certificate or were not built.
- 18 6 OAR 345-027-0020(6): If the Council requires mitigation based on an affirmative finding
19 under any standards of Division 22 or Division 24 of this chapter, the certificate holder
20 shall consult with affected state agencies and local governments designated by the Council
21 and shall develop specific mitigation plans consistent with Council findings under the
22 relevant standards. The certificate holder must submit the mitigation plans to the Office and
23 receive Office approval before beginning construction or, as appropriate, operation of the
24 facility.
- 25 7 OAR 345-027-0020(7): The certificate holder shall prevent the development of any
26 conditions on the site that would preclude restoration of the site to a useful, non-hazardous
27 condition to the extent that prevention of such site conditions is within the control of the
28 certificate holder.
- 29 8 OAR 345-027-0020(8): Before beginning construction of the facility, the certificate holder
30 shall submit to the State of Oregon, through the Council, a bond or letter of credit, in a form
31 and amount satisfactory to the Council to restore the site to a useful, non-hazardous
32 condition. The certificate holder shall maintain a bond or letter of credit in effect at all
33 times until the facility has been retired. The Council may specify different amounts for the
34 bond or letter of credit during construction and during operation of the facility. (*See*
35 *Condition 30.*)
- 36 9 OAR 345-027-0020(9): The certificate holder shall retire the facility if the certificate holder
37 permanently ceases construction or operation of the facility. The certificate holder shall
38 retire the facility according to a final retirement plan approved by the Council, as described
39 in OAR 345-027-0110. The certificate holder shall pay the actual cost to restore the site to a
40 useful, non-hazardous condition at the time of retirement, notwithstanding the Council’s
41 approval in the site certificate of an estimated amount required to restore the site.
- 42 10 OAR 345-027-0020(10): The Council shall include as conditions in the site certificate all
43 representations in the site certificate application and supporting record the Council deems to
44 be binding commitments made by the applicant.

- 1 11 OAR 345-027-0020(11): Upon completion of construction, the certificate holder shall
2 restore vegetation to the extent practicable and shall landscape all areas disturbed by
3 construction in a manner compatible with the surroundings and proposed use. Upon
4 completion of construction, the certificate holder shall remove all temporary structures not
5 required for facility operation and dispose of all timber, brush, refuse and flammable or
6 combustible material resulting from clearing of land and construction of the facility.
- 7 12 OAR 345-027-0020(12): The certificate holder shall design, engineer and construct the
8 facility to avoid dangers to human safety presented by seismic hazards affecting the site that
9 are expected to result from all maximum probable seismic events. As used in this rule
10 “seismic hazard” includes ground shaking, landslide, liquefaction, lateral spreading,
11 tsunami inundation, fault displacement and subsidence.
- 12 13 OAR 345-027-0020(13): The certificate holder shall notify the Department, the State
13 Building Codes Division and the Department of Geology and Mineral Industries promptly
14 if site investigations or trenching reveal that conditions in the foundation rocks differ
15 significantly from those described in the application for a site certificate. After the
16 Department receives the notice, the Council may require the certificate holder to consult
17 with the Department of Geology and Mineral Industries and the Building Codes Division
18 and to propose mitigation actions.
- 19 14 OAR 345-027-0020(14): The certificate holder shall notify the Department, the State
20 Building Codes Division and the Department of Geology and Mineral Industries promptly
21 if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity
22 of the site.
- 23 15 OAR 345-027-0020(15): Before any transfer of ownership of the facility or ownership of
24 the site certificate holder, the certificate holder shall inform the Department of the proposed
25 new owners. The requirements of OAR 345-027-0100 apply to any transfer of ownership
26 that requires a transfer of the site certificate.
- 27 16 OAR 345-027-0020(16): If the Council finds that the certificate holder has permanently
28 ceased construction or operation of the facility without retiring the facility according to a
29 final retirement plan approved by the Council, as described in OAR 345-027-0110, the
30 Council shall notify the certificate holder and request that the certificate holder submit a
31 proposed final retirement plan to the Office within a reasonable time not to exceed 90 days.
32 If the certificate holder does not submit a proposed final retirement plan by the specified
33 date, the Council may direct the Department to prepare a proposed final retirement plan for
34 the Council’s approval. Upon the Council’s approval of the final retirement plan, the
35 Council may draw on the bond or letter of credit described in OAR 345-027-0020(8) to
36 restore the site to a useful, non-hazardous condition according to the final retirement plan,
37 in addition to any penalties the Council may impose under OAR Chapter 345, Division 29.
38 If the amount of the bond or letter of credit is insufficient to pay the actual cost of
39 retirement, the certificate holder shall pay any additional cost necessary to restore the site to
40 a useful, non-hazardous condition. After completion of site restoration, the Council shall
41 issue an order to terminate the site certificate if the Council finds that the facility has been
42 retired according to the approved final retirement plan.

1 17 OAR 345-027-0023(4): If the facility includes any transmission line under Council
2 jurisdiction:

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

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

10 18 OAR 345-027-0023(5): If the proposed energy facility is a pipeline or a transmission line or
11 has, as a related or supporting facility, a pipeline or transmission line, the Council shall
12 specify an approved corridor in the site certificate and shall allow the certificate holder to
13 construct the pipeline or transmission line anywhere within the corridor, subject to the
14 conditions of the site certificate. If the applicant has analyzed more than one corridor in its
15 application for a site certificate, the Council may, subject to the Council's standards,
16 approve more than one corridor.

17 19 OAR 345-027-0028: The following general monitoring conditions apply:

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

25 (b) The certificate holder shall implement the approved monitoring programs described in
26 OAR 345-027-0028(1) and monitoring programs required by permitting agencies and local
27 governments.

28 (c) For each monitoring program described in OAR 345-027-0028(1) and (2), the
29 certificate holder shall have quality assurance measures approved by the Department before
30 beginning construction or, as appropriate, before beginning commercial operation.

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

35 20 OAR 345-026-0048: Following receipt of the site certificate or an amended site certificate,
36 the certificate holder shall implement a plan that verifies compliance with all site certificate
37 terms and conditions and applicable statutes and rules. As a part of the compliance plan, to
38 verify compliance with the requirement to begin construction by the date specified in the
39 site certificate, the certificate holder shall report promptly to the Department of Energy
40 when construction begins. Construction is defined in OAR 345-001-0010. In reporting the
41 beginning of construction, the certificate holder shall describe all work on the site
42 performed before beginning construction, including work performed before the Council
43 issued the site certificate, and shall state the cost of that work. For the purpose of this
44 exhibit, "work on the site" means any work within a site or corridor, other than surveying,
45 exploration or other activities to define or characterize the site or corridor. The certificate

1 holder shall document the compliance plan and maintain it for inspection by the
2 Department or the Council.

3 21 OAR 345-026-0080: The certificate holder shall report according to the following
4 requirements:

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

6 (i) Within six months after beginning construction, and every six months thereafter
7 during construction of the energy facility and related or supporting facilities, the certificate
8 holder shall submit a semiannual construction progress report to the Department of Energy.
9 In each construction progress report, the certificate holder shall describe any significant
10 changes to major milestones for construction. The certificate holder shall include such
11 information related to construction as specified in the site certificate. When the reporting
12 date coincides, the certificate holder may include the construction progress report within the
13 annual report described in OAR 345-026-0080.

14 (ii) By April 30 of each year after beginning construction, the certificate holder shall
15 submit an annual report to the Department addressing the subjects listed in OAR 345-026-
16 0080. The Council Secretary and the certificate holder may, by mutual agreement, change
17 the reporting date.

18 (iii) To the extent that information required by OAR 345-026-0080 is contained in
19 reports the certificate holder submits to other state, federal or local agencies, the certificate
20 holder may submit excerpts from such other reports to satisfy this rule. The Council
21 reserves the right to request full copies of such excerpted reports.

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

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

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

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

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

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

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

44 (v) Monitoring Report: A list and description of all significant monitoring and
45 mitigation activities performed during the previous year in accordance with site certificate
46 terms and conditions, a summary of the results of those activities and a discussion of any

1 significant changes to any monitoring or mitigation program, including the reason for any
2 such changes.

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

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

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

13 22 OAR 345-026-0105: The certificate holder and the Department of Energy shall exchange
14 copies of all correspondence or summaries of correspondence related to compliance with
15 statutes, rules and local ordinances on which the Council determined compliance, except for
16 material withheld from public disclosure under state or federal law or under Council rules.
17 The certificate holder may submit abstracts of reports in place of full reports; however, the
18 certificate holder shall provide full copies of abstracted reports and any summarized
19 correspondence at the request of the Department.

20 23 OAR 345-026-0170: The certificate holder shall notify the Department of Energy within 72
21 hours of any occurrence involving the facility if:

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

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

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

V. SPECIFIC FACILITY CONDITIONS

27 The conditions listed in this section include conditions based on representations in the
28 site certificate application and supporting record. These conditions are required under OAR 345-
29 027-0020(10). The certificate holder must comply with these conditions in addition to the
30 conditions listed in Section VI. This section includes other specific facility conditions the
31 Council finds necessary to ensure compliance with the siting standards of OAR Chapter 345,
32 Divisions 22 and 24, and to protect the public health and safety. For conditions that require
33 subsequent review and approval of a future action, ORS 469.402 authorizes the Council to
34 delegate the future review and approval to the Department if, in the Council's discretion, the
35 delegation is warranted under the circumstances of the case.

1. Certificate Administration Conditions

36 24 The certificate holder shall begin construction of the facility by July 25, 2011. The Council
37 may grant an extension of the deadline to begin construction in accordance with OAR 345-
38 027-0030 or any successor rule in effect at the time the request for extension is submitted.
39 [Amendment #1 (SFWF)]

40 25 The certificate holder shall complete construction of the facility by July 25, 2014.
41 Construction is complete when: 1) the facility is substantially complete as defined by the

1 certificate holder's construction contract documents, 2) acceptance testing has been
2 satisfactorily completed and 3) the energy facility is ready to begin continuous operation
3 consistent with the site certificate. The certificate holder shall promptly notify the
4 Department of the date of completion of construction. The Council may grant an extension
5 of the deadline for completing construction in accordance with OAR 345-027-0030 or any
6 successor rule in effect at the time the request for extension is submitted. [Amendment #1
7 (SFWF)]

8 26 The certificate holder shall construct a facility substantially as described in the site
9 certificate and may select turbines of any type, subject to the following restrictions and
10 compliance with all other site certificate conditions. Before beginning construction, the
11 certificate holder shall provide to the Department a description of the turbine types selected
12 for the facility demonstrating compliance with this condition.

13 (a) The total number of turbines at the facility must not exceed 116 turbines.

14 (b) The combined peak generating capacity of the facility must not exceed 290
15 megawatts.

16 (c) The turbine hub height must not exceed 105 meters and the maximum blade tip height
17 must not exceed 150 meters.

18 (d) The minimum blade tip clearance must be 25 meters above ground.

19 (e) The maximum volume of concrete above three feet below grade in the turbine
20 foundations must not exceed 66 cubic yards.

21 (f) The maximum combined weight of metals in the tower (including ladders and
22 platforms) and nacelle must not exceed 393 U.S. tons per turbine.

23 (g) The certificate holder shall request an amendment of the site certificate to increase the
24 combined peak generating capacity of the facility beyond 290 megawatts, to increase the
25 number of wind turbines to more than 116 wind turbines or to install wind turbines with a
26 hub height greater than 105 meters, a blade tip height greater than 150 meters or a blade tip
27 clearance less than 25 meters above ground.

28 [Amendment #1 (SFWF); Amendment #1]

29 27 The certificate holder shall obtain all necessary federal, state and local permits or approvals
30 required for construction, operation and retirement of the facility or ensure that its
31 contractors obtain the necessary federal, state and local permits or approvals.

32 28 Before beginning construction, the certificate holder shall notify the Department in advance
33 of any work on the site that does not meet the definition of "construction" in ORS 469.300,
34 excluding surveying, exploration or other activities to define or characterize the site, and
35 shall provide to the Department a description of the work and evidence that its value is less
36 than \$250,000.

37 29 Before beginning construction and after considering all micro-siting factors, the certificate
38 holder shall provide to the Department, to the Oregon Department of Fish and Wildlife
39 (ODFW) and to the Planning Directors of Morrow County and Gilliam County detailed
40 maps of the facility site, showing the final locations where the certificate holder proposes to
41 build facility components, and a table showing the acres of temporary and permanent
42 habitat impact by habitat category and subtype, similar to Table 11 in the Final Order on
43 Amendment #1 for the Shepherds Flat Wind Farm. The detailed maps of the facility site
44 shall indicate the habitat categories of all areas that would be affected during construction
45 (similar to the maps labeled "ODFW-2" in the site certificate application for the Shepherds

1 Flat Wind Farm). In classifying the affected habitat into habitat categories, the certificate
2 holder shall consult with the ODFW. The certificate holder shall not begin ground
3 disturbance in an affected area until the habitat assessment has been approved by the
4 Department. The Department may employ a qualified contractor to confirm the habitat
5 assessment by on-site inspection. [Amendment #1 (SFWF)]

6 30 Before beginning construction, the certificate holder shall submit to the State of Oregon
7 through the Council a bond or letter of credit in the amount described herein naming the
8 State of Oregon, acting by and through the Council, as beneficiary or payee. The initial
9 bond or letter of credit amount is either \$9.108 million (1st Quarter 2010 dollars), to be
10 adjusted to the date of issuance as described in (b), or the amount determined as described
11 in (a). The certificate holder shall adjust the amount of the bond or letter of credit on an
12 annual basis thereafter as described in (b).

13 (a) The certificate holder may adjust the amount of the bond or letter of credit based on
14 the final design configuration of the facility and turbine types selected by applying the unit
15 costs and general costs illustrated in Table 3 in the Final Order on Amendment #1 for the
16 Shepherds Flat Wind Farm and calculating the financial assurance amount as described in
17 that order, adjusted to the date of issuance as described in (b) and subject to approval by the
18 Department.

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

21 (i) Adjust the Subtotal component of the bond or letter of credit amount (expressed in
22 3rd Quarter 2009 dollars) to present value, using the U.S. Gross Domestic Product Implicit
23 Price Deflator, Chain-Weight, as published in the Oregon Department of Administrative
24 Services' "Oregon Economic and Revenue Forecast" or by any successor agency (the
25 "Index") and using the index value for 3rd Quarter 2009 dollars and the quarterly index
26 value for the date of issuance of the new bond or letter of credit. If at any time the Index is
27 no longer published, the Council shall select a comparable calculation to adjust 3rd Quarter
28 2009 dollars to present value.

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

31 (iii) Add 10 percent of the adjusted Gross Cost (ii) for the adjusted administration and
32 project management costs and 10 percent of the adjusted Gross Cost (ii) for the adjusted
33 future developments contingency.

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

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 the bond or letter of credit in the
41 annual report submitted to the Council under Condition 21.

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

44 [Amendment #1 (SFWF); Amendment #1]

- 1 31 If the certificate holder elects to use a bond to meet the requirements of Condition 30, the
2 certificate holder shall ensure that the surety is obligated to comply with the requirements
3 of applicable statutes, Council rules and this site certificate when the surety exercises any
4 legal or contractual right it may have to assume construction, operation or retirement of the
5 energy facility. The certificate holder shall also ensure that the surety is obligated to notify
6 the Council that it is exercising such rights and to obtain any Council approvals required by
7 applicable statutes, Council rules and this site certificate before the surety commences any
8 activity to complete construction, operate or retire the energy facility.
- 9 32 Before beginning construction, the certificate holder shall notify the Department of the
10 identity and qualifications of the major design, engineering and construction contractor(s)
11 for the facility. The certificate holder shall select contractors that have substantial
12 experience in the design, engineering and construction of similar facilities. The certificate
13 holder shall report to the Department any change of major contractors.
- 14 33 The certificate holder shall contractually require all construction contractors and
15 subcontractors involved in the construction of the facility to comply with all applicable
16 laws and regulations and with the terms and conditions of the site certificate. Such
17 contractual provisions shall not operate to relieve the certificate holder of responsibility
18 under the site certificate.
- 19 34 During construction, the certificate holder shall have a full-time, on-site assistant
20 construction manager who is qualified in environmental compliance to ensure compliance
21 with all site certificate conditions. The certificate holder shall notify the Department of the
22 name, telephone number and e-mail address of this person.
- 23 35 Within 72 hours after discovery of conditions or circumstances that may violate the terms
24 or conditions of the site certificate, the certificate holder shall report the conditions or
25 circumstances to the Department.

2. Land Use Conditions

- 26 36 The certificate holder shall consult with area landowners and lessees during construction
27 and operation of the facility and shall implement measures to reduce or avoid any adverse
28 impacts to farm practices on surrounding lands and to avoid any increase in farming costs.
- 29 37 The certificate holder shall design and construct the facility using the minimum land area
30 necessary for safe construction and operation. The certificate holder shall locate access
31 roads and temporary construction laydown and staging areas to minimize disturbance with
32 farming practices and, wherever feasible, shall place turbines and transmission
33 interconnection lines along the margins of cultivated areas to reduce the potential for
34 conflict with farm operations.
- 35 38 During construction and operation of the facility, the certificate holder shall implement a
36 plan to control the introduction and spread of noxious weeds. The certificate shall develop
37 the weed control plan consistent with the Gilliam County and Morrow County Weed
38 Control Programs.
- 39 39 Before beginning construction of the facility, the certificate holder shall record in the real
40 property records of Gilliam County a Covenant Not to Sue with regard to generally

1 accepted farming practices on adjacent farmland consistent with Gilliam County Zoning
2 Ordinance 7.020(T)(4)(a)(5).

3 40 The certificate holder shall construct all facility components in compliance with the
4 following setback requirements:

5 (a) All facility components must be at least 3,520 feet from the property line of properties
6 zoned residential use or designated in the Gilliam County Comprehensive Plan as
7 residential.

8 (b) Where (a) does not apply, the certificate holder shall maintain a minimum distance of
9 110-percent of maximum blade tip height, measured from the centerline of the turbine
10 tower to the nearest edge of any public road right-of-way. The certificate holder shall
11 assume a minimum right-of-way width of 60 feet.

12 (c) Where (a) does not apply, the certificate holder shall maintain a minimum distance of
13 1,320 feet, measured from the centerline of the turbine tower to the center of the nearest
14 residence existing at the time of tower construction.

15 (d) Where (a) does not apply, the certificate holder shall maintain a minimum distance of
16 110-percent of maximum blade tip height, measured from the centerline of the turbine
17 tower to the nearest boundary of the certificate holder's lease area.

18 41 Within 90 days after beginning operation, the certificate holder shall provide to the
19 Department and to the Planning Directors of Gilliam County and Morrow County the actual
20 latitude and longitude location or Stateplane NAD 83(91) coordinates of each turbine
21 tower, connecting lines and transmission lines. In addition, the certificate holder shall
22 provide to the Department and to the Planning Directors of Gilliam County and Morrow
23 County, a summary of as-built changes in the facility compared to the original plan, if any.

24 42 The certificate holder shall install gates on all private facility access roads in Gilliam
25 County, in accordance with Gilliam County Zoning Ordinance Section 7.020(T)(4)(d)(6).

3. Cultural Resource Conditions

26 43 Before beginning construction, the certificate holder shall provide to the Department a map
27 showing the final design locations of all components of the facility and areas that would be
28 temporarily disturbed during construction. In addition, the certificate holder shall comply
29 with the following requirements:

30 (a) The certificate holder shall avoid disturbance within a 30-meter buffer around the
31 historic-period archaeological sites within the facility boundary identified by AINW as
32 "possibly eligible" for listing in the National Register of Historic Places (NRHP) as
33 described in the Final Order on the Application for the Shepherds Flat Wind Farm.

34 (b) The certificate holder shall avoid disturbance of the stacked rock features within the
35 facility boundary identified by AINW as "possibly eligible" for listing in the NRHP as
36 described in the Final Order on the Application for the Shepherds Flat Wind Farm and
37 shall, to the extent practicable, maintain a 30-meter no-construction buffer around these
38 features. If a 30-meter buffer cannot be maintained, the certificate holder shall consult with
39 the State Historic Preservation Office (SHPO) and the Department to determine appropriate
40 action to preserve or document the feature.

41 (c) The certificate holder shall label "no entry" areas around all identified historic,
42 cultural or archaeological resource sites on construction maps and drawings, and if

1 construction activities will occur within 200 feet of an identified site, the certificate holder
2 shall flag a 30-meter buffer around the site.

3 (d) The certificate holder shall hire qualified personnel to conduct pre-construction field
4 investigation for historic, cultural or archaeological resources in any areas of potential
5 construction disturbance that AINW did not previously survey.

6 (e) The certificate holder shall provide written reports of the field investigation required
7 under (d) to the Department and to the SHPO. If any historic, cultural or archaeological
8 resources are found that the SHPO determines to be significant, the certificate holder shall
9 consult with the Department and the SHPO to develop plan to avoid disturbance of the
10 resources during construction and operation of the facility. The certificate holder shall
11 instruct all construction personnel to avoid areas where the resources were found and shall
12 implement other appropriate measures to protect the resources.

13 [Amendment #1 (SFWF)]

14 44 The certificate holder shall ensure that a qualified archeologist, as defined in OAR 736-051-
15 0070, instructs construction personnel in the identification of cultural materials and
16 avoidance of accidental damage to identified resource sites.

17 45 The certificate holder shall ensure that construction personnel cease all ground-disturbing
18 activities in the immediate area if any archaeological or cultural resources are found during
19 construction of the facility until a qualified archeologist can evaluate the significance of the
20 find. The certificate holder shall notify the Department and the State Historic Preservation
21 Office (SHPO) of the find. If the SHPO determines that the resource is significant, the
22 certificate holder shall make recommendations to the Council for mitigation, including
23 avoidance, field documentation and data recovery, in consultation with the Department,
24 SHPO, interested tribes and other appropriate parties. The certificate holder shall not restart
25 work in the affected area until the certificate holder has demonstrated to the Department
26 and the SHPO that it has complied with archaeological resource protection regulations.

27 46 In reference to the presumed alignments of the Oregon Trail described in the Final Order on
28 the Application, the certificate holder shall comply with the following requirements:

29 (a) The certificate holder shall not locate facility components on visible remnants of the
30 Oregon Trail and shall avoid any construction disturbance to those remnants.

31 (b) The certificate holder shall not locate facility components on undeveloped land where
32 the trail alignment was marked by existing Oregon-California Trail Association markers as
33 described in the October 2007 Archaeological Investigations Northwest, Inc. report (No.
34 2012) on the Oregon Trail.

35 (c) Before beginning construction, the certificate holder shall provide to the State Historic
36 Preservation Office (SHPO) and to the Department photographic documentation of the
37 presumed Oregon Trail alignments within the site boundary.

38 (d) The certificate holder shall ensure that construction personnel proceed carefully in the
39 vicinity of the presumed alignments of the Oregon Trail. If any intact physical evidence of
40 the trail is discovered, the certificate holder shall avoid any disturbance to the intact
41 segments, by redesign, re-engineering or restricting the area of construction activity. The
42 certificate holder shall promptly notify the SHPO and the Department of the discovery. The
43 certificate holder shall consult with the SHPO and the Department to determine appropriate
44 mitigation measures.

4. Geotechnical Conditions

- 1 47 Before beginning construction, the certificate holder shall conduct a site-specific
2 geotechnical investigation and shall report its findings to the Oregon Department of
3 Geology & Mineral Industries (DOGAMI) and the Department. The certificate holder shall
4 conduct the geotechnical investigation after consultation with DOGAMI and in general
5 accordance with DOGAMI open file report 00-04 “Guidelines for Engineering Geologic
6 Reports and Site-Specific Seismic Hazard Reports.”
- 7 48 The certificate holder shall design and construct the facility in accordance with
8 requirements set forth by the State of Oregon’s Building Code Division and any other
9 applicable codes and design procedures. The certificate holder shall design facility
10 structures to meet or exceed the minimum standards required by the 2003 International
11 Building Code.
- 12 49 The certificate holder shall design, engineer and construct the facility to avoid dangers to
13 human safety presented by non-seismic hazards. As used in this condition, “non-seismic
14 hazards” include settlement, landslides, flooding and erosion.

5. Hazardous Materials, Fire Protection & Public Safety Conditions

- 15 50 The certificate holder shall handle hazardous materials used on the site in a manner that
16 protects public health, safety and the environment and shall comply with all applicable
17 local, state and federal environmental laws and regulations. The certificate holder shall not
18 store diesel fuel or gasoline on the facility site.
- 19 51 If a spill or release of hazardous material occurs during construction or operation of the
20 facility, the certificate holder shall notify the Department within 72 hours and shall clean up
21 the spill or release and dispose of any contaminated soil or other materials according to
22 applicable regulations. The certificate holder shall make sure that spill kits containing items
23 such as absorbent pads are located on equipment and at the field workshop. The certificate
24 holder shall instruct employees about proper handling, storage and cleanup of hazardous
25 materials. [Amendment #1 (SFWF)]
- 26 52 During construction, the certificate holder shall ensure that construction personnel are
27 trained in fire prevention and response, that construction vehicles and equipment are
28 operated on graveled areas to the extent possible and that open flames, such as cutting
29 torches, are kept away from dry grass areas.
- 30 53 During operation, the certificate holder shall ensure that all on-site employees receive
31 annual fire prevention and response training, including tower rescue training, by qualified
32 instructors or members of the local fire districts. The certificate holder shall ensure that all
33 employees are instructed to keep vehicles on roads and off dry grassland, except when off-
34 road operation is required for emergency purposes. The certificate holder shall encourage
35 employees to become volunteer members of local fire departments and shall facilitate
36 appropriate training.
- 37 54 During construction and operation of the facility, the certificate holder shall ensure that the
38 field workshop and all service vehicles are equipped with shovels and portable fire
39 extinguishers of a 4A50BC or equivalent rating. [Amendment #1 (SFWF)]

- 1 55 During construction and operation of the facility, the certificate holder shall develop and
2 implement fire safety plans in consultation with the local fire protection agencies (the North
3 Gilliam County Rural Fire Protection District and the Ione Rural Fire Protection District) to
4 minimize the risk of fire and to respond appropriately to any fires that occur on the facility
5 site. In developing the fire safety plans, the certificate holder shall take into account the dry
6 nature of the region and shall address risks on a seasonal basis. The certificate holder shall
7 meet annually with local fire protection agency personnel to discuss emergency planning
8 and shall invite local fire protection agency personnel to observe any emergency drill or
9 tower rescue training conducted at the facility.
- 10 56 Upon the beginning of operation of the facility, the certificate holder shall provide a site
11 plan to the local fire protection agencies (the North Gilliam County Rural Fire Protection
12 District and the Ione Rural Fire Protection District). The certificate holder shall indicate on
13 the site plan the identification number assigned to each turbine and the location of all
14 facility structures and shall provide an updated site plan if additional turbines or other
15 structures are later added to the facility. During operation, the certificate holder shall ensure
16 that appropriate fire protection agency personnel have an up-to-date list of the names and
17 telephone numbers of facility personnel available to respond on a 24-hour basis in case of
18 an emergency on the facility site.
- 19 57 Before beginning construction, the certificate holder shall submit a Notice of Proposed
20 Construction or Alteration to the Federal Aviation Administration (FAA) and the Oregon
21 Department of Aviation identifying the proposed final locations of turbine towers and
22 meteorological towers. The certificate holder shall promptly notify the Department of the
23 responses from the FAA and the Oregon Department of Aviation. [Amendment #1 (SFWF)]
- 24 58 The certificate holder shall construct turbines on concrete foundations and shall surround
25 the base of each tower with a ten-foot pad area of washed crushed rock on all sides. The
26 certificate holder shall cover turbine pad areas with non-erosive, non-flammable material as
27 soon as possible following exposure during construction and shall maintain the pad area
28 covering during operation of the facility.
- 29 59 The certificate holder shall follow manufacturers' recommended handling instructions and
30 procedures to prevent damage to turbine or turbine tower components that could lead to
31 failure.
- 32 60 The certificate holder shall install and maintain self-monitoring devices on each turbine,
33 connected to a fault annunciation panel or supervisory control and data acquisition
34 (SCADA) system at the field workshop to alert operators to potentially dangerous
35 conditions. The certificate holder shall maintain automatic equipment protection features in
36 each turbine that would shut down the turbine and reduce the chance of a mechanical
37 problem causing a fire. [Amendment #1 (SFWF)]
- 38 61 The certificate holder shall construct turbine towers with no exterior ladders or access to the
39 turbine blades and shall install locked tower access doors. The certificate holder shall keep
40 tower access doors locked at all times except when authorized personnel are present.
- 41 62 The certificate holder shall have an operational safety-monitoring program and shall inspect
42 all turbine and turbine tower components on a regular basis. The certificate holder shall

- 1 maintain or repair turbine and turbine tower components as necessary to protect public
2 safety.
- 3 63 For turbine types having pad-mounted step-up transformers, the certificate holder shall
4 install the transformers at the base of each tower in locked cabinets designed to protect the
5 public from electrical hazards and to avoid creation of artificial habitat for raptor prey.
- 6 64 To protect the public from electrical hazards, the certificate holder shall enclose the facility
7 substation with appropriate fencing and locked gates. [Amendment #1 (SFWF)]
- 8 65 The certificate holder shall construct access roads with a finished width of approximately
9 16 feet, a compacted base of native soil and a gravel surface to a depth of four to ten inches.
10 [Amendment #1 (SFWF); Amendment #1]
- 11 66 During construction, the certificate holder shall implement measures to reduce traffic
12 impacts, including:
- 13 (a) Providing notice to the City of Arlington Road Department, the Gilliam County Road
14 Department and the Gilliam County Sheriff's Office in advance of deliveries that could
15 cause traffic disruption in Arlington.
- 16 (b) Providing notice to the residents of Arlington in advance of deliveries that could
17 cause traffic disruption.
- 18 (c) Requiring flaggers to be at appropriate locations at appropriate times during
19 construction to direct traffic.
- 20 67 The certificate holder shall cooperate with the Gilliam County Road Department and the
21 Morrow County Public Works Department to ensure that any unusual damage or wear to
22 county roads that is caused by construction of the facility is repaired by the certificate
23 holder. Upon completion of construction, the certificate holder shall restore county roads to
24 pre-construction condition or better, to the satisfaction of the applicable county
25 departments. If required by Morrow County or Gilliam County, the certificate holder shall
26 post bonds to ensure funds are available to repair and maintain roads affected by the
27 proposed facility.
- 28 68 During construction, the certificate holder shall require that all on-site construction
29 contractors develop and implement a site health and safety plan that informs workers and
30 others on-site what to do in case of an emergency and that includes the locations of fire
31 extinguishers and nearby hospitals, important telephone numbers and first aid techniques.
32 The certificate holder shall ensure that construction contractors have personnel on-site who
33 are trained and equipped for tower rescue and who are first aid and CPR certified.
- 34 69 During operation, the certificate holder shall develop and implement a site health and safety
35 plan that informs employees and others on-site what to do in case of an emergency and that
36 includes the locations of fire extinguishers and nearby hospitals, important telephone
37 numbers and first aid techniques.
- 38 70 During construction and operation of the facility, the certificate holder shall provide for on-
39 site security and shall establish good communications between on-site security personnel
40 and local law enforcement agencies (Gilliam County Sheriff and Morrow County Sheriff).
41 During operation, the certificate holder shall ensure that appropriate law enforcement
42 agency personnel have an up-to-date list of the names and telephone numbers of facility

1 personnel available to respond on a 24-hour basis in case of an emergency on the facility
2 site.

3 71 The certificate holder shall notify the Department and the Planning Directors of Gilliam
4 County and Morrow County within 72 hours of any accidents including mechanical failures
5 on the site associated with construction or operation of the facility that may result in public
6 health and safety concerns.

6. Water, Soils, Streams & Wetlands Conditions

7 72 The certificate holder shall not build any roads or construct transmission line support poles
8 within Eightmile Creek or within a 10-foot buffer from the ordinary high water line of the
9 creek.

10 73 The certificate holder shall conduct all construction work in compliance with an Erosion
11 and Sediment Control Plan (ESCP) satisfactory to the Oregon Department of
12 Environmental Quality and as required under the National Pollutant Discharge Elimination
13 System (NPDES) Storm Water Discharge General Permit #1200-C. The certificate holder
14 shall include in the ESCP any procedures necessary to meet local erosion and sediment
15 control requirements or storm water management requirements.

16 74 During construction, the certificate holder shall limit truck traffic to designated existing and
17 improved road surfaces to avoid soil compaction, to the extent practicable.

18 75 During construction, the certificate holder shall implement best management practices to
19 control any dust generated by construction activities, such as applying water to roads and
20 disturbed soil areas.

21 76 During construction, the certificate holder shall reduce temporary disturbance impacts by
22 making use of previously disturbed areas, including roadways and tracks, and by preserving
23 vegetation rootstalks by crushing, rather than scraping, vegetation in areas of temporary
24 disturbance.

25 77 During facility operation, the certificate holder shall routinely inspect and maintain all
26 roads, pads and trenched areas and, as necessary, maintain or repair erosion and sediment
27 control measures. The certificate holder shall restore areas that are temporarily disturbed
28 during facility maintenance or repair activities to pre-disturbance condition or better.

29 78 During facility operation, the certificate holder shall obtain water for on-site uses from a
30 well at the field workshop, subject to compliance with applicable permit requirements. The
31 certificate holder shall not use more than 5,000 gallons of water per day from the facility's
32 on-site well. [Amendment #1 (SFWF)]

7. Transmission Line & EMF Conditions

33 79 The certificate holder shall install the 34.5-kV collector system underground to the extent
34 practicable. The certificate holder shall install underground lines at a minimum depth of
35 three feet. Based on geotechnical conditions or other engineering considerations, the
36 certificate holder may install segments of the collector system aboveground on single-pole,
37 cross-arm structures, but the total length of aboveground double-circuit segments installed
38 on single-pole structures must not exceed 3.2 miles. [Amendment #1 (SFWF); Amendment #1]

1 80 The certificate holder shall ground appropriate sections of fencing that parallel transmission
2 lines to reduce the risk of shock from induced voltage. In particular, the certificate holder
3 shall ground appropriate sections of fencing located in the northern project area on the west
4 side of Eightmile Canyon if the certificate holder builds a parallel transmission line in that
5 location that could induce a voltage on the fence.

6 81 The certificate holder shall take reasonable steps to reduce or manage human exposure to
7 electromagnetic fields, including but not limited to:

8 (a) Constructing all aboveground transmission lines at least 200 feet from any residence
9 or other occupied structure, measured from the centerline of the transmission line.

10 (b) Constructing all aboveground 34.5-kV transmission lines with a minimum clearance
11 of 20 feet from the ground.

12 (c) Constructing all aboveground 230-kV transmission lines with a minimum clearance of
13 24 feet from the ground.

14 (d) Fencing the areas near the facility substation to ensure that substation equipment is
15 not accessible to the public.

16 (e) Providing to landowners a map of underground and overhead transmission lines on
17 their property and advising landowners of possible health risks.

18 (f) Designing and maintaining all transmission lines so that alternating current electric
19 fields do not exceed 9 kV per meter at one meter above the ground surface in areas
20 accessible to the public.

21 [Amendment #1 (SFWF)]

22 82 In advance of, and during, preparation of detailed design drawings and specifications for
23 230-kV and 34.5-kV transmission lines, the certificate holder shall consult with the Utility
24 Safety and Reliability Section of the Oregon Public Utility Commission to ensure that the
25 designs and specifications are consistent with applicable codes and standards.

8. Plants, Wildlife & Habitat Protection Conditions

26 83 The certificate holder shall conduct wildlife monitoring as described in the *Wildlife*
27 *Monitoring and Mitigation Plan* that is incorporated in the *Final Order on Amendment #1*
28 as Attachment A and as amended from time to time. [Amendment #1 (SFWF); Amendment #1]

29 84 The certificate holder shall restore areas disturbed by facility construction but not occupied
30 by permanent facility structures according to the methods and monitoring procedures
31 described in the *Revegetation Plan* that is incorporated in the *Final Order on Amendment*
32 *#1 for the Shepherds Flat Wind Farm* as Attachment SFS-B and as amended from time to
33 time. [Amendment #1 (SFWF)]

34 85 The certificate holder shall acquire the legal right to create, enhance, maintain and protect a
35 habitat mitigation area as long as the site certificate is in effect by means of an outright
36 purchase, conservation easement or similar conveyance and shall provide a copy of the
37 documentation to the Department. Within the habitat mitigation area, the certificate holder
38 shall improve the habitat quality as described in the *Habitat Mitigation Plan* that is
39 incorporated in the *Final Order on Amendment #1* as Attachment C and as amended from
40 time to time. [Amendment #1 (SFWF); Amendment #1]

41 86 The certificate holder shall avoid permanent and temporary disturbance to the areas
42 described in (a) through (g) and, during the times indicated, shall avoid construction

1 disturbance in the areas described in (h) through (k). The certificate holder shall flag these
2 areas for the duration of construction activities nearby and shall ensure that construction
3 personnel avoid disturbance of the areas. The avoidance areas are:

4 (a) All Category 1 and those areas of Category 2 habitat shown on the “ODFW-2”
5 Figures 1 through 12 in the Shepherds Flat Wind Farm Application. [Amendment #1 (SFWF)]

6 (b) Eight small areas of Category 3 shrub-steppe habitat as described in the Final Order
7 on Amendment #1 for the Shepherds Flat Wind Farm, Section IV.4.(b)A. [Amendment #1
8 (SFWF)]

9 (c) All seeps, riparian areas and vernal pools.

10 (d) All water sources for wildlife, including perennial and intermittent streams, stock
11 ponds and watering stations.

12 (e) All faces of bluffs or rock outcroppings.

13 (f) All trees or other structures that contain active raptor nests.

14 (g) For the facility substation and field workshop, all Category 3 habitat. [Amendment #1
15 (SFWF)]

16 (h) [Text was removed by Amendment #1]

17 (i) The area within 0.5 miles of Category 3 curlew nesting habitat and the area within 0.5
18 miles the BLM Horn Butte Wildlife Area during the nesting season (March 8 through June
19 15). Before beginning construction, the certificate holder shall provide to the Department a
20 map showing these avoidance areas relative to areas of potential construction disturbance.
21 The certificate holder may engage in construction activities in these areas at times other
22 than the nesting season.

23 (j) The area within 1,000 feet of any essential, limited and irreplaceable Washington
24 ground squirrel (WGS) habitat within the new areas added to the site by Amendment #1
25 (excluding the areas within the site boundaries of Shepherds Flat North, Shepherds Flat
26 Central and Shepherds Flat South as approved on September 11, 2009) during the period in
27 which the squirrels are active. The certificate holder shall hire a qualified independent
28 professional biologist to conduct pre-construction surveys for State-listed threatened,
29 endangered or sensitive wildlife species in these new areas within 1,000 feet of any area
30 potentially disturbed by facility construction. To determine whether WGS habitat exists and
31 to determine whether WGS are active, the biologist shall search for WGS in suitable habitat
32 using a two-survey protocol approved by the Oregon Department of Fish and Wildlife
33 (ODFW). The certificate holder shall submit the results of the survey to ODFW and to the
34 Department. If signs of WGS activity are observed, the certificate holder shall flag the
35 avoidance area and ensure that construction personnel avoid disturbance of the area until
36 the biologist has determined that the WGS are no longer active.

37 (k) Areas within a suitable buffer around confirmed populations of Laurent’s milk-vetch
38 or any other State-listed threatened or endangered plant species within the new areas added
39 to the site by Amendment #1 (excluding the area within the site boundaries of Shepherds
40 Flat North, Shepherds Flat Central and Shepherds Flat South as approved on September 11,
41 2009). The certificate holder shall not install facility components or cause temporary
42 disturbance within these areas. The certificate holder shall hire a qualified independent
43 professional biologist to conduct pre-construction surveys for State-listed threatened or
44 endangered plant species in these new areas within 1,000 feet of any area potentially
45 disturbed by facility construction. The certificate holder shall submit the results of the
46 survey to the Department.

47 [Amendment #1]

1 87 The certificate holder shall microsite the facility in conformance with the industry’s best
2 practices. The certificate holder shall follow the recommendations of a qualified wildlife
3 biologist to avoid building turbine towers in the following locations:

4 (a) Areas of increased risk to avian species due to constricted flight paths, such as narrow
5 ridge saddles and gaps between hilltops.

6 (b) Areas on slopes greater than 20 percent.

7 (c) [text removed by Amendment #1 (SFWF)]

8 (d) [text removed by Amendment #1 (SFWF)]

9 88 During construction, the certificate holder shall avoid construction activities in areas around
10 active nests of the following species during the sensitive period, as provided in this
11 condition:

<u>Species</u>	<u>Sensitive Period</u>	<u>Early Release Date</u>
Swainson’s hawk	April 1 to August 15	May 31
Ferruginous hawk	March 15 to August 15	May 31
Burrowing owl	April 1 to August 15	July 15

12 The certificate holder shall conduct pre-construction surveys, using a protocol approved by
13 the Oregon Department of Fish and Wildlife (ODFW) to determine whether there are any
14 active nests of these species within 0.5 miles of any areas that would be disturbed during
15 construction. The certificate holder shall search the scheduled construction areas and all
16 areas within 0.5 miles of the construction areas. If a nest is occupied by any of these species
17 after the beginning of the sensitive period, the certificate holder will flag the boundaries of
18 a 0.5-mile buffer area around the nest and shall instruct construction personnel to avoid
19 disturbance of the area. The certificate holder shall hire a qualified independent
20 professional biologist to observe the active nest sites during the sensitive period for signs of
21 disturbance and to notify the Department of any non-compliance with this condition. If the
22 biologist observes nest site abandonment or other adverse impact to nesting activity, the
23 certificate holder shall implement appropriate mitigation, in consultation with ODFW and
24 subject to the approval of the Department, unless the adverse impact is clearly shown to
25 have a cause other than construction activity. The certificate holder may begin or resume
26 construction activities within a buffer area before the ending day of the sensitive period if
27 any known nest site is not occupied by the early release date. If a nest site is occupied, then
28 the certificate holder may begin or resume construction before the ending day of the
29 sensitive period with the approval of ODFW, after the young are fledged. The certificate
30 holder shall use a protocol approved by ODFW to determine when the young are fledged
31 (the young are independent of the core nest site).

32 89 The certificate holder shall not remove any trees that are greater than three feet in height.

33 90 The certificate holder shall design all aboveground transmission line support structures
34 following the most current suggested practices for avian protection on power lines
35 published by the Avian Power Line Interaction Committee.

36 91 The certificate holder shall reduce the risk of injuries to avian species by:

37 (a) Installing turbine towers that are smooth steel structures that lack features that would
38 allow avian perching.

39 (b) Installing meteorological towers that are non-guyed structures to eliminate the risk of
40 avian collision with guy-wires.

1 (c) Avoiding installation of aboveground transmission lines across narrow saddles,
2 ravines and similar features and, where such crossings cannot be avoided, installing line-
3 markers to make the lines more visible to avian species.

4 92 The certificate holder shall impose and enforce construction and operation speed limits of 5
5 miles per hour on roads within 1,000 feet of Category 1 or Category 2 WGS habitat and 20
6 miles per hour on all other facility roads and shall ensure that all construction and
7 operations personnel are instructed on the importance of cautious driving practices while on
8 facility roads. [Amendment #1]

9. Visual Effects Conditions

9 93 To reduce the visual impact of the facility, the certificate holder shall:

10 (a) Mount nacelles on smooth, steel structures, painted uniformly in a matte-finish,
11 neutral white color.

12 (b) Paint substation structures in a neutral color to blend with the surrounding landscape.

13 (c) Not allow any advertising to be used on any part of the facility.

14 (d) Use only those signs required for facility safety, required by law or otherwise required
15 by this site certificate, except that the certificate holder may erect a sign to identify the
16 facility near the field workshop, may paint turbine numbers on each tower and may allow
17 unobtrusive manufacturers' logos on turbine nacelles.

18 (e) Not locate any facility signs along Highway 74.

19 (f) Design signs in accordance with Gilliam County Zoning Ordinance Section 8.030 and
20 Morrow County Zoning Ordinance Section 4.070, as applicable.

21 (g) Maintain any signs allowed under this condition in good repair.

22 [Amendment #1 (SFWF)]

23 94 The certificate holder shall design and construct the field workshop to be generally
24 consistent with the character of similar buildings used by commercial farmers or ranchers in
25 the area and shall paint the building in a neutral color to blend with the surrounding
26 landscape. [Amendment #1 (SFWF)]

27 95 The certificate holder shall not use exterior nighttime lighting except:

28 (a) The minimum turbine tower lighting required or recommended by the Federal
29 Aviation Administration.

30 (b) Security lighting at the field workshop and substation, provided that such lighting is
31 shielded or downward-directed to reduce glare.

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

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

40 [Amendment #1 (SFWF)]

10. Noise Control Conditions

1 96 To reduce noise impacts at nearby residences, the certificate holder shall:

2 (a) Confine the noisiest operation of heavy construction equipment to the daylight hours.

3 (b) Require contractors to install and maintain exhaust mufflers on all combustion
4 engine-powered equipment; and

5 (c) Establish a complaint response system at the construction manager's office to address
6 noise complaints.

7 97 Before beginning construction, the certificate holder shall provide to the Department:

8 (a) Information that identifies the final design locations of all turbines to be built at the
9 facility.

10 (b) The maximum sound power level for the substation transformers and the maximum
11 sound power level and octave band data for the turbines selected for the facility based on
12 manufacturers' warranties or confirmed by other means acceptable to the Department.

13 (c) The results of noise analysis of the facility to be built according to the final design
14 performed in a manner consistent with the requirements of OAR 340-035-0035
15 (1)(b)(B)(iii)(IV) and (VI) demonstrating to the satisfaction of the Department that the total
16 noise generated by the facility (including the noise from turbines and substation
17 transformers) would meet the ambient degradation test and maximum allowable test at the
18 appropriate measurement point for all potentially-affected noise sensitive properties.

19 (d) For each noise-sensitive property where the certificate holder relies on a noise waiver
20 to demonstrate compliance in accordance with OAR 340-035-0035 (1)(b)(B)(iii)(III), a
21 copy of the a legally effective easement or real covenant pursuant to which the owner of the
22 property authorizes the certificate holder's operation of the facility to increase ambient
23 statistical noise levels L_{10} and L_{50} by more than 10 dBA at the appropriate measurement
24 point. The legally-effective easement or real covenant must: include a legal description of
25 the burdened property (the noise sensitive property); be recorded in the real property
26 records of the county; expressly benefit the certificate holder; expressly run with the land
27 and bind all future owners, lessees or holders of any interest in the burdened property; and
28 not be subject to revocation without the certificate holder's written approval.

29 98 During operation, the certificate holder shall maintain a complaint response system to
30 address noise complaints. The certificate holder shall promptly notify the Department of
31 any complaints received regarding facility noise and of any actions taken by the certificate
32 holder to address those complaints. In response to a complaint from the owner of a noise
33 sensitive property regarding noise levels during operation of the facility, the Council may
34 require the certificate holder to monitor and record the statistical noise levels to verify that
35 the certificate holder is operating the facility in compliance with the noise control
36 regulations. [Amendment #1 (SFWF)]

11. Waste Management Conditions

37 99 The certificate holder shall provide portable toilets for on-site sewage handling during
38 construction and shall ensure that they are pumped and cleaned regularly by a licensed
39 contractor who is qualified to pump and clean portable toilet facilities.

40 100 During operation, the certificate holder shall discharge sanitary wastewater generated at the
41 field workshop to a licensed on-site septic system in compliance with county permit

1 requirements. The certificate holder shall design the septic system for a discharge capacity
2 of less than 2,500 gallons per day. [Amendment #1 (SFWF)]

3 101 The certificate holder shall implement a waste management plan during construction that
4 includes but is not limited to the following measures:

5 (a) Recycling steel and other metal scrap.

6 (b) Recycling wood waste.

7 (c) Recycling packaging wastes such as paper and cardboard.

8 (d) Collecting non-recyclable waste for transport to a local landfill by a licensed waste
9 hauler or by using facility equipment and personnel to haul the waste.

10 (e) Segregating all hazardous wastes such as used oil, oily rags and oil-absorbent
11 materials, mercury-containing lights and lead-acid and nickel-cadmium batteries for
12 disposal by a licensed firm specializing in the proper recycling or disposal of hazardous
13 wastes.

14 (f) Discharging all concrete truck rinse water into foundation holes and completing truck
15 wash-down off-site.

16 102 The certificate holder shall implement a waste management plan during operation that
17 includes but is not limited to the following measures:

18 (a) Training employees to minimize and recycle solid waste.

19 (b) Recycling paper products, metals, glass and plastics.

20 (c) Recycling used oil and hydraulic fluid.

21 (d) Collecting non-recyclable waste for transport to a local landfill by a licensed waste
22 hauler or by using facility equipment and personnel to haul the waste.

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

27 103 Before beginning construction, the certificate holder shall determine whether any
28 construction disturbance would occur in locations not previously investigated for potential
29 jurisdictional waters as described in the *Final Order on Amendment #1*. The certificate
30 holder shall conduct pre-construction investigations in these new areas within 1,000 feet of
31 any area potentially disturbed by facility construction to determine whether any State-
32 jurisdictional waters exist in those locations. The certificate holder shall submit a written
33 report on the pre-construction investigation to the Department of Energy and to the
34 Department of State Lands for approval before beginning construction and shall ensure that
35 construction would have no impact on any jurisdictional water identified in the report.
36 [Amendment #1]

VI. SUCCESSORS AND ASSIGNS

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

VII. SEVERABILITY AND CONSTRUCTION

39 If any provision of this agreement and certificate is declared by a court to be illegal or in
40 conflict with any law, the validity of the remaining terms and conditions shall not be affected,

1 and the rights and obligations of the parties shall be construed and enforced as if the agreement
2 and certificate did not contain the particular provision held to be invalid.

VIII. GOVERNING LAW AND FORUM

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

IX. EXECUTION AND EFFECTIVE DATE

5 This site certificate may be executed in counterparts and will become effective upon
6 signature by the Chair of the Energy Facility Siting Council and the authorized representative of
7 the certificate holder. [Amendment #1 (SFWF); Amendment #1]

8 **IN WITNESS WHEREOF**, this site certificate has been executed by the State of Oregon, acting
9 by and through its Energy Facility Siting Council, and by Horseshoe Bend Wind, LLC.

ENERGY FACILITY SITING COUNCIL

HORSESHOE BEND WIND, LLC

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

By: _____
Derrel A. Grant, Vice-President
Horseshoe Bend Wind, LLC

Date: March 12, 2010

Date: March 12, 2010