# ENERGY FACILITY SITING COUNCIL OF THE STATE OF OREGON

First Amended Site Certificate for Shepherds Flat Central

March 12, 2010

#### The Oregon Energy Facility Siting Council FIRST AMENDED SITE CERTIFICATE FOR SHEPHERDS FLAT CENTRAL

#### I. INTRODUCTION

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

The findings of fact, reasoning and conclusions of law underlying the terms and
conditions of this site certificate are set forth in the following documents, incorporated herein by
this reference: (a) the Council's *Final Order on the Application for the Shepherds Flat Wind 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

Amended Site Certificate, (2) the *Final Order on Amendment #1*, (3) the *Final Order on Amendment #1 for the Shepherds Flat Wind Farm*, (4) the *Final Order on the Application for the*

Amendment #1 for the Shepherds Flat Wind Farm, (4) the Final Order on the Application for the
 Shepherds Flat Wind Farm and (5) the record of the proceedings that led to the Final Orders on

the Application and Amondment #1 for the Shepherds Elet Wind Form and to the Final Order or

the Application and Amendment #1 for the Shepherds Flat Wind Farm and to the *Final Order on* Amendment #1 (Application Amendment #1)

17 *Amendment #1*. [Amendment #1 (SFWF); Amendment #1]

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

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

#### II. SITE CERTIFICATION

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

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

### **III. DESCRIPTION**

### 1. The Facility

### (a) The Energy Facility

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

### (b) Related or Supporting Facilities

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

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

12 <u>Collector Substations and Interconnection</u>

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

- 16 <u>Meteorological Towers</u>
- 17

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

#### 18 Field Workshop

The facility includes a field workshop. Including fenced areas, the field workshop occupies about 1.6 acres. [Amendment #1 (SFWF)]

#### 21 <u>Control System</u>

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

26 Access Roads

The facility includes up to 33 miles of new roads that provide access to the turbine
strings. The access roads connect to graveled turbine turnouts at the base of each turbine.
[Amendment #1 (SFWF); Amendment #1]

#### 30 <u>Temporary Construction Areas</u>

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

### 2. Location of the Facility

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

#### IV. CONDITIONS REQUIRED BY COUNCIL RULES

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

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

applicable, pursuant to ORS 192.450.

36

40

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

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

- <u>OAR 345-027-0020(1)</u>: The Council shall not change the conditions of the site certificate
   except as provided for in OAR Chapter 345, Division 27.
- <u>OAR 345-027-0020(2)</u>: The certificate holder shall submit a legal description of the site to
   the Department of Energy within 90 days after beginning operation of the facility. The legal
   description required by this rule means a description of metes and bounds or a description
   of the site by reference to a map and geographic data that clearly and specifically identifies
   the outer boundaries that contain all parts of the facility.
- 34 <u>3</u> <u>OAR 345-027-0020(3)</u>: The certificate holder shall design, construct, operate and retire the facility:
  - (a) Substantially as described in the site certificate;
- (b) In compliance with the requirements of ORS Chapter 469, applicable Council rules,
  and applicable state and local laws, rules and ordinances in effect at the time the site
  certificate is issued; and
  - (c) In compliance with all applicable permit requirements of other state agencies.
- 41 <u>4</u> <u>OAR 345-027-0020(4)</u>: 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.*)

5 OAR 345-027-0020(5): Except as necessary for the initial survey or as otherwise allowed 1 2 for wind energy facilities, transmission lines or pipelines under this section, the certificate holder shall not begin construction, as defined in OAR 345-001-0010, or create a clearing 3 on any part of the site until the certificate holder has construction rights on all parts of the 4 site. For the purpose of this rule, "construction rights" means the legal right to engage in 5 construction activities. For wind energy facilities, transmission lines or pipelines, if the 6 certificate holder does not have construction rights on all parts of the site, the certificate 7 holder may nevertheless begin construction, as defined in OAR 345-001-0010, or create a 8 clearing on a part of the site if the certificate holder has construction rights on that part of 9 the site and: 10

- (a) The certificate holder would construct and operate part of the facility on that part of
   the site even if a change in the planned route of the transmission line or pipeline occurs
   during the certificate holder's negotiations to acquire construction rights on another part of
   the site; or
- (b) The certificate holder would construct and operate part of a wind energy facility on
  that part of the site even if other parts of the facility were modified by amendment of the
  site certificate or were not built.
- 6 OAR 345-027-0020(6): If the Council requires mitigation based on an affirmative finding under any standards of Division 22 or Division 24 of this chapter, the certificate holder shall consult with affected state agencies and local governments designated by the Council and shall develop specific mitigation plans consistent with Council findings under the relevant standards. The certificate holder must submit the mitigation plans to the Office and receive Office approval before beginning construction or, as appropriate, operation of the facility.
- <u>OAR 345-027-0020(7)</u>: The certificate holder shall prevent the development of any
   conditions on the site that would preclude restoration of the site to a useful, non-hazardous
   condition to the extent that prevention of such site conditions is within the control of the
   certificate holder.
- <u>8</u> OAR 345-027-0020(8): Before beginning construction of the facility, the certificate holder
   shall submit to the State of Oregon, through the Council, a bond or letter of credit, in a form
   and amount satisfactory to the Council to restore the site to a useful, non-hazardous
   condition. The certificate holder shall maintain a bond or letter of credit in effect at all
   times until the facility has been retired. The Council may specify different amounts for the
   bond or letter of credit during construction and during operation of the facility. (See
   *Condition 30.*)
- <u>9</u> OAR 345-027-0020(9): The certificate holder shall retire the facility if the certificate holder
   permanently ceases construction or operation of the facility. The certificate holder shall
   retire the facility according to a final retirement plan approved by the Council, as described
   in OAR 345-027-0110. The certificate holder shall pay the actual cost to restore the site to a
   useful, non-hazardous condition at the time of retirement, notwithstanding the Council's
   approval in the site certificate of an estimated amount required to restore the site.
- <u>OAR 345-027-0020(10)</u>: The Council shall include as conditions in the site certificate all
   representations in the site certificate application and supporting record the Council deems to
   be binding commitments made by the applicant.

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

1	<u>17</u>	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	<u>17</u>	(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			
20 21		addressed by applicable statutes, administrative rules and local ordinances. The certificate			
		holder must submit the monitoring programs to the Department of Energy and receive			
22		Department approval before beginning construction or, as appropriate, operation of the			
23					
24		facility. (b) The cortificate holder shall implement the approved monitoring programs described in			
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	<u>20</u>	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			

- holder shall document the compliance plan and maintain it for inspection by the
   Department or the Council.
- 3 <u>21</u> <u>OAR 345-026-0080</u>: The certificate holder shall report according to the following requirements:

5

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

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

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

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

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

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

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

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

(iii) Fuel Use: For thermal power plants:

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

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

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

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

significant changes to any monitoring or mitigation program, including the reason for any 1 such changes. 2 (vi) Compliance Report: A description of all instances of noncompliance with a site 3 certificate condition. For ease of review, the certificate holder shall, in this section of the 4 report, use numbered subparagraphs corresponding to the applicable sections of the site 5 certificate. 6 (vii) Facility Modification Report: A summary of changes to the facility that the 7 certificate holder has determined do not require a site certificate amendment in accordance 8 with OAR 345-027-0050. 9 (viii) Nongenerating Facility Carbon Dioxide Emissions: For nongenerating facilities 10 that emit carbon dioxide, a report of the annual fuel use by fuel type and annual hours of 11 operation of the carbon dioxide emitting equipment as described in OAR 345-024-0630(4). 12 OAR 345-026-0105: The certificate holder and the Department of Energy shall exchange 13 22 copies of all correspondence or summaries of correspondence related to compliance with 14 statutes, rules and local ordinances on which the Council determined compliance, except for 15 material withheld from public disclosure under state or federal law or under Council rules. 16 The certificate holder may submit abstracts of reports in place of full reports; however, the 17 certificate holder shall provide full copies of abstracted reports and any summarized 18 correspondence at the request of the Department. 19 OAR 345-026-0170: The certificate holder shall notify the Department of Energy within 72 23 20 hours of any occurrence involving the facility if: 21 (a) There is an attempt by anyone to interfere with its safe operation; 22 (b) A natural event such as an earthquake, flood, tsunami or tornado, or a human-caused 23 event such as a fire or explosion affects or threatens to affect the public health and safety or 24 the environment: or 25 (c) There is any fatal injury at the facility. 26

## V. SPECIFIC FACILITY CONDITIONS

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

#### 1. Certificate Administration Conditions

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

- 40  $\underline{25}$  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	<u>26</u>	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	<u>27</u>	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	<u>28</u>	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	<u>29</u>	Before beginning construction and after considering all micrositing 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 9 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

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

Before beginning construction, the certificate holder shall submit to the State of Oregon
 through the Council a bond or letter of credit in the amount described herein naming the
 State of Oregon, acting by and through the Council, as beneficiary or payee. The initial
 bond or letter of credit amount is either \$9.076 million (1<sup>st</sup> Quarter 2010 dollars), to be
 adjusted to the date of issuance as described in (b), or the amount determined as described
 in (a). The certificate holder shall adjust the amount of the bond or letter of credit on an
 annual basis thereafter as described in (b).

(a) The certificate holder may adjust the amount of the bond or letter of credit based on
the final design configuration of the facility and turbine types selected by applying the unit
costs and general costs illustrated in Table 2 in the Final Order on the Amendment #1 for
the Shepherds Flat Wind Farm and calculating the financial assurance amount as described
in that order, adjusted to the date of issuance as described in (b) and subject to approval by
the Department.

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

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

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

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

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

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

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

(e) The certificate holder shall describe the status of the bond or letter of credit in the annual report submitted to the Council under Condition 21.

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

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

29

30

31

32

33

34

35

36 37

40 41

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

#### 2. Land Use Conditions

- 36 The certificate holder shall consult with area landowners and lessees during construction
   and operation of the facility and shall implement measures to reduce or avoid any adverse
   impacts to farm practices on surrounding lands and to avoid any increase in farming costs.
- <u>37</u> The certificate holder shall design and construct the facility using the minimum land area
   necessary for safe construction and operation. The certificate holder shall locate access
   roads and temporary construction laydown and staging areas to minimize disturbance with
   farming practices and, wherever feasible, shall place turbines and transmission
   interconnection lines along the margins of cultivated areas to reduce the potential for
   conflict with farm operations.
- 35 <u>38</u> 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 <u>39</u> 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 2		accepted farming practices on adjacent farmland consistent with Gilliam County Zoning Ordinance $7.020(T)(4)(a)(5)$ .		
3	40			
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, except as provided in		
18		(e).		
19		(e) The turbine tower setback distance described in (d) does not apply to the two isolated		
20		areas excluded from the certificate holder's lease with the landowner identified as "Area A"		
21		and "Area B" in the <i>Final Order on Amendment #1</i> .		
22		[Amendment #1]		
23	<u>41</u>	Within 90 days after beginning operation, the certificate holder shall provide to the		
24		Department and to the Planning Directors of Gilliam County and Morrow County the actual		
25		latitude and longitude location or Stateplane NAD 83(91) coordinates of each turbine		
26		tower, connecting lines and transmission lines. In addition, the certificate holder shall		
27		provide to the Department and to the Planning Directors of Gilliam County and Morrow		
28		County, a summary of as-built changes in the facility compared to the original plan, if any.		
29	<u>42</u>	The certificate holder shall install gates on all private facility access roads in Gilliam		
30		County, in accordance with Gilliam County Zoning Ordinance Section 7.020(T)(4)(d)(6).		
	3.	Cultural Resource Conditions		
21	43	Before beginning construction, the certificate holder shall provide to the Department a map		
31 32	<u>+J</u>	showing the final design locations of all components of the facility and areas that would be		
33		temporarily disturbed during construction. In addition, the certificate holder shall comply		
34		with the following requirements:		
35		(a) The certificate holder shall avoid disturbance within a 30-meter buffer around the		
36		prehistoric archaeological sites and historic-period archaeological sites within the facility		
37		boundary identified by AINW as "possibly eligible" for listing in the National Register of		
38		Historic Places (NRHP) as described in the Final Order on the Application for the		
39		Shepherds Flat Wind Farm.		
40		(b) The certificate holder shall avoid disturbance of the stacked rock features within the		
41		facility boundary identified by AINW as "possibly eligible" for listing in the NRHP as		
42		described in the Final Order on the Application for the Shepherds Flat Wind Farm and		
12		shall to the extent practicable maintain a 30-meter no-construction buffer around these		

43 shall, to the extent practicable, maintain a 30-meter no-construction buffer around these

- features. If a 30-meter buffer cannot be maintained, the certificate holder shall consult with
   the State Historic Preservation Office (SHPO) and the Department to determine appropriate
   action to preserve or document the feature.
- 4 (c) The certificate holder shall label "no entry" areas around all identified historic,
  5 cultural or archaeological resource sites on construction maps and drawings, and if
  6 construction activities will occur within 200 feet of an identified site, the certificate holder
  7 shall flag a 30-meter buffer around the site.
- (d) The certificate holder shall hire qualified personnel to conduct pre-construction field
   investigation for historic, cultural or archaeological resources in any areas of potential
   construction disturbance that AINW did not previously survey.
- (e) The certificate holder shall provide written reports of the field investigation required
  under (d) to the Department and to the SHPO. If any historic, cultural or archaeological
  resources are found that the SHPO determines to be significant, the certificate holder shall
  consult with the Department and the SHPO to develop plan to avoid disturbance of the
  resources during construction and operation of the facility. The certificate holder shall
  instruct all construction personnel to avoid areas where the resources were found and shall
  implement other appropriate measures to protect the resources.
- 18 [Amendment #1 (SFWF)]

34

35

- 19 <u>44</u> The certificate holder shall ensure that a qualified archeologist, as defined in OAR 736-051 20 0070, instructs construction personnel in the identification of cultural materials and
   21 avoidance of accidental damage to identified resource sites.
- The certificate holder shall ensure that construction personnel cease all ground-disturbing 22 45 activities in the immediate area if any archaeological or cultural resources are found during 23 construction of the facility until a qualified archeologist can evaluate the significance of the 24 find. The certificate holder shall notify the Department and the State Historic Preservation 25 Office (SHPO) of the find. If the SHPO determines that the resource is significant, the 26 certificate holder shall make recommendations to the Council for mitigation, including 27 avoidance, field documentation and data recovery, in consultation with the Department, 28 SHPO, interested tribes and other appropriate parties. The certificate holder shall not restart 29 work in the affected area until the certificate holder has demonstrated to the Department 30 and the SHPO that it has complied with archaeological resource protection regulations. 31
- In reference to the presumed alignments of the Oregon Trail described in the Final Order on
   the Application, the certificate holder shall comply with the following requirements:
  - (a) The certificate holder shall not locate facility components on visible remnants of the Oregon Trail and shall avoid any construction disturbance to those remnants.
- (b) The certificate holder shall not locate facility components on undeveloped land where
   the trail alignment was marked by existing Oregon-California Trail Association markers as
   described in the October 2007 Archaeological Investigations Northwest, Inc. report (No.
   2012) on the Oregon Trail.
- (c) Before beginning construction, the certificate holder shall provide to the State Historic
   Preservation Office (SHPO) and to the Department photographic documentation of the
   presumed Oregon Trail alignments within the site boundary.
- (d) The certificate holder shall ensure that construction personnel proceed carefully in the
  vicinity of the presumed alignments of the Oregon Trail. If any intact physical evidence of
  the trail is discovered, the certificate holder shall avoid any disturbance to the intact

segments, by redesign, re-engineering or restricting the area of construction activity. The
 certificate holder shall promptly notify the SHPO and the Department of the discovery. The
 certificate holder shall consult with the SHPO and the Department to determine appropriate
 mitigation measures.

#### 4. Geotechnical Conditions

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

#### 5. Hazardous Materials, Fire Protection & Public Safety Conditions

- <u>50</u> The certificate holder shall handle hazardous materials used on the site in a manner that
   protects public health, safety and the environment and shall comply with all applicable
   local, state and federal environmental laws and regulations. The certificate holder shall not
   store diesel fuel or gasoline on the facility site.
- If a spill or release of hazardous material occurs during construction or operation of the
   facility, the certificate holder shall notify the Department within 72 hours and shall clean up
   the spill or release and dispose of any contaminated soil or other materials according to
   applicable regulations. The certificate holder shall make sure that spill kits containing items
   such as absorbent pads are located on equipment and at the field workshop. The certificate
   holder shall instruct employees about proper handling, storage and cleanup of hazardous
   materials. [Amendment #1 (SFWF)]
- 52 During construction, the certificate holder shall ensure that construction personnel are
   trained in fire prevention and response, that construction vehicles and equipment are
   operated on graveled areas to the extent possible and that open flames, such as cutting
   torches, are kept away from dry grass areas.
- 53 During operation, the certificate holder shall ensure that all on-site employees receive annual fire prevention and response training, including tower rescue training, by qualified instructors or members of the local fire districts. The certificate holder shall ensure that all employees are instructed to keep vehicles on roads and off dry grassland, except when offroad operation is required for emergency purposes. The certificate holder shall encourage employees to become volunteer members of local fire departments and shall facilitate appropriate training.

- <u>54</u> During construction and operation of the facility, the certificate holder shall ensure that the
   field workshop and all service vehicles are equipped with shovels and portable fire
   extinguishers of a 4A5OBC or equivalent rating. [Amendment #1 (SFWF)]
- During construction and operation of the facility, the certificate holder shall develop and 4 55 implement fire safety plans in consultation with the local fire protection agencies (the North 5 6 Gilliam County Rural Fire Protection District and the Ione Rural Fire Protection District) to minimize the risk of fire and to respond appropriately to any fires that occur on the facility 7 site. In developing the fire safety plans, the certificate holder shall take into account the dry 8 nature of the region and shall address risks on a seasonal basis. The certificate holder shall 9 meet annually with local fire protection agency personnel to discuss emergency planning 10 and shall invite local fire protection agency personnel to observe any emergency drill or 11 tower rescue training conducted at the facility. 12
- Upon the beginning of operation of the facility, the certificate holder shall provide a site 56 13 plan to the local fire protection agencies (the North Gilliam County Rural Fire Protection 14 District and the Ione Rural Fire Protection District). The certificate holder shall indicate on 15 the site plan the identification number assigned to each turbine and the location of all 16 facility structures and shall provide an updated site plan if additional turbines or other 17 structures are later added to the facility. During operation, the certificate holder shall ensure 18 that appropriate fire protection agency personnel have an up-to-date list of the names and 19 telephone numbers of facility personnel available to respond on a 24-hour basis in case of 20 an emergency on the facility site. 21
- 57 Before beginning construction, the certificate holder shall submit a Notice of Proposed
   Construction or Alteration to the Federal Aviation Administration (FAA) and the Oregon
   Department of Aviation identifying the proposed final locations of turbine towers and
   meteorological towers. The certificate holder shall promptly notify the Department of the
   responses from the FAA and the Oregon Department of Aviation. [Amendment #1 (SFWF)]
- The certificate holder shall construct turbines on concrete foundations and shall surround
   the base of each tower with a ten-foot pad area of washed crushed rock on all sides. The
   certificate holder shall cover turbine pad areas with non-erosive, non-flammable material as
   soon as possible following exposure during construction and shall maintain the pad area
   covering during operation of the facility.
- 59 The certificate holder shall follow manufacturers' recommended handling instructions and
   procedures to prevent damage to turbine or turbine tower components that could lead to
   failure.
- The certificate holder shall install and maintain self-monitoring devices on each turbine,
   connected to a fault annunciation panel or supervisory control and data acquisition
   (SCADA) system at the field workshop to alert operators to potentially dangerous
   conditions. The certificate holder shall maintain automatic equipment protection features in
   each turbine that would shut down the turbine and reduce the chance of a mechanical
   problem causing a fire. [Amendment #1 (SFWF)]
- <u>61</u> The certificate holder shall construct turbine towers with no exterior ladders or access to the
   turbine blades and shall install locked tower access doors. The certificate holder shall keep
   tower access doors locked at all times except when authorized personnel are present.

all turbine and turbine tower components on a regular basis. The certificate holder shall 2 maintain or repair turbine and turbine tower components as necessary to protect public 3 safety. 4 For turbine types having pad-mounted step-up transformers, the certificate holder shall 63 5 6 install the transformers at the base of each tower in locked cabinets designed to protect the public from electrical hazards and to avoid creation of artificial habitat for raptor prey. 7 8 64 To protect the public from electrical hazards, the certificate holder shall enclose the facility substation with appropriate fencing and locked gates. [Amendment #1 (SFWF)] 9 65 The certificate holder shall construct access roads with a finished width of approximately 10 16 feet, a compacted base of native soil and a gravel surface to a depth of four to ten inches. 11 [Amendment #1 (SFWF); Amendment #1] 12 66 During construction, the certificate holder shall implement measures to reduce traffic 13 impacts, including: 14 (a) Providing notice to the City of Arlington Road Department, the Gilliam County Road 15 Department and the Gilliam County Sheriff's Office in advance of deliveries that could 16 cause traffic disruption in Arlington. 17 (b) Providing notice to the residents of Arlington in advance of deliveries that could 18 cause traffic disruption. 19 (c) Requiring flaggers to be at appropriate locations at appropriate times during 20 construction to direct traffic. 21 The certificate holder shall cooperate with the Gilliam County Road Department and the 22 67 23 Morrow County Public Works Department to ensure that any unusual damage or wear to county roads that is caused by construction of the facility is repaired by the certificate 24 holder. Upon completion of construction, the certificate holder shall restore county roads to 25 pre-construction condition or better, to the satisfaction of the applicable county 26 departments. If required by Morrow County or Gilliam County, the certificate holder shall 27 post bonds to ensure funds are available to repair and maintain roads affected by the 28 proposed facility. 29 During construction, the certificate holder shall require that all on-site construction 30 68 contractors develop and implement a site health and safety plan that informs workers and 31 others on-site what to do in case of an emergency and that includes the locations of fire 32 extinguishers and nearby hospitals, important telephone numbers and first aid techniques. 33 The certificate holder shall ensure that construction contractors have personnel on-site who 34 are trained and equipped for tower rescue and who are first aid and CPR certified. 35 During operation, the certificate holder shall develop and implement a site health and safety 69 36 37 plan that informs employees and others on-site what to do in case of an emergency and that includes the locations of fire extinguishers and nearby hospitals, important telephone 38 numbers and first aid techniques. 39 During construction and operation of the facility, the certificate holder shall provide for on-40 70 site security and shall establish good communications between on-site security personnel 41 and local law enforcement agencies (Gilliam County Sheriff and Morrow County Sheriff). 42 During operation, the certificate holder shall ensure that appropriate law enforcement 43

The certificate holder shall have an operational safety-monitoring program and shall inspect

1

62

- agency personnel have an up-to-date list of the names and telephone numbers of facility
   personnel available to respond on a 24-hour basis in case of an emergency on the facility
   site.
- The certificate holder shall notify the Department and the Planning Directors of Gilliam
  County and Morrow County within 72 hours of any accidents including mechanical failures
  on the site associated with construction or operation of the facility that may result in public
  health and safety concerns.

#### 6. Water, Soils, Streams & Wetlands Conditions

- 8 <u>72</u> The certificate holder shall not build any roads or construct transmission line support poles
   9 within Eightmile Creek or within a 10-foot buffer from the ordinary high water line of the
   10 creek.
- 11 <u>73</u> The certificate holder shall conduct all construction work in compliance with an Erosion 12 and Sediment Control Plan (ESCP) satisfactory to the Oregon Department of
- Environmental Quality and as required under the National Pollutant Discharge Elimination
   System (NPDES) Storm Water Discharge General Permit #1200-C. The certificate holder
   shall include in the ESCP any procedures necessary to meet local erosion and sediment
- 16 control requirements or storm water management requirements.
- 17 <u>74</u> During construction, the certificate holder shall limit truck traffic to designated existing and
   18 improved road surfaces to avoid soil compaction, to the extent practicable.
- During construction, the certificate holder shall implement best management practices to control any dust generated by construction activities, such as applying water to roads and disturbed soil areas.
- 22 <u>76</u> During construction, the certificate holder shall reduce temporary disturbance impacts by
   23 making use of previously disturbed areas, including roadways and tracks, and by preserving
   24 vegetation rootstalks by crushing, rather than scraping, vegetation in areas of temporary
   25 disturbance.
- 26 <u>77</u> During facility operation, the certificate holder shall routinely inspect and maintain all
   27 roads, pads and trenched areas and, as necessary, maintain or repair erosion and sediment
   28 control measures. The certificate holder shall restore areas that are temporarily disturbed
   29 during facility maintenance or repair activities to pre-disturbance condition or better.
- 30 <u>78</u> During facility operation, the certificate holder shall obtain water for on-site uses from a
   31 well at the field workshop, subject to compliance with applicable permit requirements. The
   32 certificate holder shall not use more than 5,000 gallons of water per day from the facility's
   33 on-site well. [Amendment #1 (SFWF)]

#### 7. Transmission Line & EMF Conditions

The certificate holder shall install the 34.5-kV collector system underground to the extent
 practicable. The certificate holder shall install underground lines at a minimum depth of
 three feet. Based on geotechnical conditions or other engineering considerations, the
 certificate holder may install segments of the collector system aboveground on single-pole,
 cross-arm structures, but the total length of aboveground double-circuit segmentsmust not

1 2		exceed 9 miles and the total length of aboveground single-circuit segments must not exceed 6 miles. [Amendment #1 (SFWF); Amendment #1]	
3 4 5 6 7	<u>80</u>	The certificate holder shall ground appropriate sections of fencing that parallel transmissio lines to reduce the risk of shock from induced voltage. In particular, the certificate holder shall ground appropriate sections of fencing located in the northern project area on the wes side of Eightmile Canyon if the certificate holder builds a parallel transmission line in that location that could induce a voltage on the fence.	
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	<u>81</u>	<ul> <li>The certificate holder shall take reasonable steps to reduce or manage human exposure to electromagnetic fields, including but not limited to: <ul> <li>(a) Constructing all aboveground transmission lines at least 200 feet from any residence or other occupied structure, measured from the centerline of the transmission line.</li> <li>(b) Constructing all aboveground 34.5-kV transmission lines with a minimum clearance of 20 feet from the ground.</li> <li>(c) Constructing all aboveground 230-kV transmission lines with a minimum clearance 24 feet from the ground.</li> <li>(d) Fencing the areas near the facility substation to ensure that substation equipment is not accessible to the public.</li> <li>(e) Providing to landowners a map of underground and overhead transmission lines on their property and advising landowners of possible health risks.</li> <li>(f) Designing and maintaining all transmission lines so that alternating current electric fields do not exceed 9 kV per meter at one meter above the ground surface in areas accessible to the public.</li> </ul> </li> </ul>	
24 25 26 27	<u>82</u>	In advance of, and during, preparation of detailed design drawings and specifications for 230-kV and 34.5-kV transmission lines, the certificate holder shall consult with the Utility Safety and Reliability Section of the Oregon Public Utility Commission to ensure that the designs and specifications are consistent with applicable codes and standards.	
	<b>8.</b> ]	Plants, Wildlife & Habitat Protection Conditions	
28 29 30	<u>83</u>	The certificate holder shall conduct wildlife monitoring as described in the <i>Wildlife</i> <i>Monitoring and Mitigation Plan</i> that is incorporated in the <i>Final Order on Amendment #1</i> as Attachment A and as amended from time to time. [Amendment #1 (SFWF); Amendment #1]	
31 32 33 34 35	<u>84</u>	The certificate holder shall restore areas disturbed by facility construction but not occupied by permanent facility structures according to the methods and monitoring procedures described in the Revegetation Plan that is incorporated in the Final Order on Amendment #1 for the Shepherds Flat Wind Farm as Attachment SFC-B and as amended from time to time. [Amendment #1 (SFWF)]	
36 37 38 39 40 41 42	<u>85</u>	The certificate holder shall acquire the legal right to create, enhance, maintain and protect a habitat mitigation area as long as the site certificate is in effect by means of an outright purchase, conservation easement or similar conveyance and shall provide a copy of the documentation to the Department. Within the habitat mitigation area, the certificate holder shall improve the habitat quality as described in the <i>Habitat Mitigation Plan</i> that is incorporated in the <i>Final Order on Amendment #1</i> as Attachment C and as amended from time to time. [Amendment #1 (SFWF); Amendment #1]	

<u>86</u> The certificate holder shall avoid permanent and temporary disturbance to the areas
 described in (a) through (g) and, during the times indicated, shall avoid construction
 disturbance in the areas described in (h) through (k). The certificate holder shall flag these
 areas for the duration of construction activities nearby and shall ensure that construction
 personnel avoid disturbance of the areas. The avoidance areas are:

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

(b) Areas of Category 3 shrub-steppe habitat as described in the *Final Order on Amendment #1 for the Shepherds Flat Wind Farm*, Section IV.4.(b)A, including three small areas of sage shrub-steppe habitat, one small area of purshia shrub-steppe habitat and one small area of shrub-steppe rabbitbrush habitat. [Amendment #1 (SFWF)]

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

6

7

8

9

10

11

12

13

14

15

16

17

18

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

(e) All faces of bluffs or rock outcroppings.

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

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

(h) The area within 1,000 feet of Category 2 Washington ground squirrel (WGS) habitat 19 (as shown on "ODFW-2" Figure 8 in the Shepherds Flat Wind Farm Application) during 20 the period in which the squirrels are active. To determine when the WGS are active, the 21 certificate holder shall hire a qualified independent professional biologist to monitor the on-22 site colony within the Category 1 WGS habitat area described in the Final Order on the 23 Application. The biologist shall begin monitoring the colony on January 15 if construction 24 activity is occurring within 0.5 miles of the Category 2 WGS habitat at that time. 25 Otherwise, the biologist shall begin monitoring upon the start of construction activity 26 within 0.5 miles of the Category 2 WGS habitat at any time between January 15 and June 27 30. The biologist shall conduct weekly monitoring to detect signs of WGS activity. If signs 28 of WGS activity are observed, the certificate holder shall halt construction activities within 29 the avoidance area and shall notify the Department. The certificate holder shall flag the 30 avoidance area and ensure that construction personnel avoid disturbance of the area until 31 the biologist has determined that the WGS are no longer active. While the WGS are active, 32 the biologist may suspend weekly monitoring until May 1. The certificate holder may 33 resume construction activities within the avoidance area when the WGS are no longer 34 active, as determined by the absence of WGS activity during three consecutive weeks of 35 monitoring by the biologist. [This text had been removed by Amendment #1 (SFWF) and was restored 36 by Amendment #1] 37

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

(j) The area within 1,000 feet of any essential, limited and irreplaceable Washington
ground squirrel (WGS) habitat within the new areas added to the site by Amendment #1
(excluding the areas within the site boundaries of Shepherds Flat North, Shepherds Flat
Central and Shepherds Flat South as approved on September 11, 2009) during the period in

which the squirrels are active. The certificate holder shall hire a qualified independent 1 professional biologist to conduct pre-construction surveys for State-listed threatened, 2 endangered or sensitive wildlife species in these new areas within 1,000 feet of any area 3 potentially disturbed by facility construction. To determine whether WGS habitat exists and 4 to determine whether WGS are active, the biologist shall search for WGS in suitable habitat 5 using a two-survey protocol approved by the Oregon Department of Fish and Wildlife 6 (ODFW). The certificate holder shall submit the results of the survey to ODFW and to the 7 Department. If signs of WGS activity are observed, the certificate holder shall flag the 8 avoidance area and ensure that construction personnel avoid disturbance of the area until 9 the biologist has determined that the WGS are no longer active. 10

(k) Areas within a suitable buffer around confirmed populations of Laurent's milk-vetch 11 or any other State-listed threatened or endangered plant species within the new areas added 12 to the site by Amendment #1 (excluding the area within the site boundaries of Shepherds 13 Flat North, Shepherds Flat Central and Shepherds Flat South as approved on September 11, 14 2009). The certificate holder shall not install facility components or cause temporary 15 disturbance within these areas. The certificate holder shall hire a qualified independent 16 professional biologist to conduct pre-construction surveys for State-listed threatened or 17 endangered plant species in these new areas within 1,000 feet of any area potentially 18 disturbed by facility construction. The certificate holder shall submit the results of the 19 survey to the Department. 20

21 [Amendment #1]

27

28

29

22 <u>87</u> The certificate holder shall microsite the facility in conformance with the industry's best
 23 practices. The certificate holder shall follow the recommendations of a qualified wildlife
 24 biologist to avoid building turbine towers in the following locations:

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

- (b) Areas on slopes greater than 20 percent.
- (c) [text removed by Amendment #1 (SFWF)]
  - (d) [text removed by Amendment #1 (SFWF)]
- Below Barrier Bar

Species	Sensitive Period	Early Release Date	
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	

The certificate holder shall conduct pre-construction surveys, using a protocol approved by 33 the Oregon Department of Fish and Wildlife (ODFW) to determine whether there are any 34 active nests of these species within 0.5 miles of any areas that would be disturbed during 35 construction. The certificate holder shall search the scheduled construction areas and all 36 areas within 0.5 miles of the construction areas. If a nest is occupied by any of these species 37 after the beginning of the sensitive period, the certificate holder will flag the boundaries of 38 a 0.5-mile buffer area around the nest and shall instruct construction personnel to avoid 39 disturbance of the area. The certificate holder shall hire a qualified independent 40 professional biologist to observe the active nest sites during the sensitive period for signs of 41

disturbance and to notify the Department of any non-compliance with this condition. If the 1 biologist observes nest site abandonment or other adverse impact to nesting activity, the 2 certificate holder shall implement appropriate mitigation, in consultation with ODFW and 3 subject to the approval of the Department, unless the adverse impact is clearly shown to 4 have a cause other than construction activity. The certificate holder may begin or resume 5 construction activities within a buffer area before the ending day of the sensitive period if 6 any known nest site is not occupied by the early release date. If a nest site is occupied, then 7 the certificate holder may begin or resume construction before the ending day of the 8 sensitive period with the approval of ODFW, after the young are fledged. The certificate 9 holder shall use a protocol approved by ODFW to determine when the young are fledged 10 (the young are independent of the core nest site). 11 The certificate holder shall not remove any trees that are greater than three feet in height. 89 12 The certificate holder shall design all aboveground transmission line support structures 90 13 following the most current suggested practices for avian protection on power lines 14 published by the Avian Power Line Interaction Committee. 15 91 The certificate holder shall reduce the risk of injuries to avian species by: 16 (a) Installing turbine towers that are smooth steel structures that lack features that would 17 allow avian perching. 18 (b) Installing meteorological towers that are non-guyed structures to eliminate the risk of 19 avian collision with guy-wires. 20 (c) Avoiding installation of aboveground transmission lines across narrow saddles, 21 ravines and similar features and, where such crossings cannot be avoided, installing line-22 markers to make the lines more visible to avian species. 23 The certificate holder shall impose and enforce construction and operation speed limits of 5 24 92 miles per hour on roads within 1,000 feet of Category 1 or Category 2 Washington ground 25 squirrel habitat and 20 miles per hour on all other facility roads and shall ensure that all 26 construction and operations personnel are instructed on the importance of cautious driving 27 practices while on facility roads. [Amendment #1 (SFWF); Amendment #1] 28 9. Visual Effects Conditions 29 93 To reduce the visual impact of the facility, the certificate holder shall: (a) Mount nacelles on smooth, steel structures, painted uniformly in a matte-finish, 30 neutral white color. 31 (b) Paint substation structures in a neutral color to blend with the surrounding landscape. 32 (c) Not allow any advertising to be used on any part of the facility. 33 (d) Use only those signs required for facility safety, required by law or otherwise required 34 by this site certificate, except that the certificate holder may erect a sign to identify the 35 facility near the field workshop, may paint turbine numbers on each tower and may allow 36 unobtrusive manufacturers' logos on turbine nacelles. 37 (e) Not locate any facility signs along Highway 74. 38 (f) Design signs in accordance with Gilliam County Zoning Ordinance Section 8.030 and 39 Morrow County Zoning Ordinance Section 4.070, as applicable. 40 (g) Maintain any signs allowed under this condition in good repair. 41 [Amendment #1 (SFWF)] 42

- <u>94</u> The certificate holder shall design and construct the field workshop to be generally
   consistent with the character of similar buildings used by commercial farmers or ranchers in
   the area and shall paint the building in a neutral color to blend with the surrounding
   landscape. [Amendment #1 (SFWF)]
- 5 <u>95</u> The certificate holder shall not use exterior nighttime lighting except:
- 6 7 8

9

10

20

21

26

27

28

29

30

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

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

(c) Minimum lighting necessary for repairs or emergencies.

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

18 [Amendment #1 (SFWF)]

#### 10. Noise Control Conditions

- 19 <u>96</u> To reduce noise impacts at nearby residences, the certificate holder shall:
  - (a) Confine the noisiest operation of heavy construction equipment to the daylight hours.

#### (b) Require contractors to install and maintain exhaust mufflers on all combustion

22 engine-powered equipment; and

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

25 <u>97</u> Before beginning construction, the certificate holder shall provide to the Department:

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

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

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

37 (d) For each noise-sensitive property where the certificate holder relies on a noise waiver 38 to demonstrate compliance in accordance with OAR 340-035-0035 (1)(b)(B)(iii)(III), a 39 copy of the a legally effective easement or real covenant pursuant to which the owner of the 40 property authorizes the certificate holder's operation of the facility to increase ambient 41 statistical noise levels  $L_{10}$  and  $L_{50}$  by more than 10 dBA at the appropriate measurement 42 point. The legally-effective easement or real covenant must: include a legal description of 43 the burdened property (the noise sensitive property); be recorded in the real property

- records of the county; expressly benefit the certificate holder; expressly run with the land 1 and bind all future owners, lessees or holders of any interest in the burdened property; and 2 not be subject to revocation without the certificate holder's written approval. 3
- During operation, the certificate holder shall maintain a complaint response system to 4 98 address noise complaints. The certificate holder shall promptly notify the Department of 5 6 any complaints received regarding facility noise and of any actions taken by the certificate holder to address those complaints. In response to a complaint from the owner of a noise 7 sensitive property regarding noise levels during operation of the facility, the Council may 8 require the certificate holder to monitor and record the statistical noise levels to verify that 9 the certificate holder is operating the facility in compliance with the noise control 10 regulations. [Amendment #1 (SFWF)] 11
  - **11. Waste Management Conditions**
- 12 99 The certificate holder shall provide portable toilets for on-site sewage handling during construction and shall ensure that they are pumped and cleaned regularly by a licensed 13 14 contractor who is qualified to pump and clean portable toilet facilities.
- 100 During operation, the certificate holder shall discharge sanitary wastewater generated at the 15 field workshop to a licensed on-site septic system in compliance with county permit 16 requirements. The certificate holder shall design the septic system for a discharge capacity 17 of less than 2,500 gallons per day. [Amendment #1 (SFWF)] 18
- 101 The certificate holder shall implement a waste management plan during construction that 19 includes but is not limited to the following measures: 20
- (a) Recycling steel and other metal scrap. 21
- (b) Recycling wood waste. 22

23

36

- (c) Recycling packaging wastes such as paper and cardboard.
- (d) Collecting non-recyclable waste for transport to a local landfill by a licensed waste 24 hauler or by using facility equipment and personnel to haul the waste. 25
- (e) Segregating all hazardous wastes such as used oil, oily rags and oil-absorbent 26 materials, mercury-containing lights and lead-acid and nickel-cadmium batteries for 27 disposal by a licensed firm specializing in the proper recycling or disposal of hazardous 28 wastes. 29
- (f) Discharging all concrete truck rinse water into foundation holes and completing truck 30 wash-down off-site. 31
- 102 The certificate holder shall implement a waste management plan during operation that 32 includes but is not limited to the following measures: 33 34
  - (a) Training employees to minimize and recycle solid waste.
- (b) Recycling paper products, metals, glass and plastics. 35
  - (c) Recycling used oil and hydraulic fluid.
- (d) Collecting non-recyclable waste for transport to a local landfill by a licensed waste 37 hauler or by using facility equipment and personnel to haul the waste. 38
- (e) Segregating all hazardous, non-recyclable wastes such as used oil, oily rags and oil-39 absorbent materials, mercury-containing lights and lead-acid and nickel-cadmium batteries 40
- for disposal by a licensed firm specializing in the proper recycling or disposal of hazardous 41 wastes. 42

103 Before beginning construction, the certificate holder shall determine whether any 1 construction disturbance would occur in locations not previously investigated for potential 2 jurisdictional waters as described in the Final Order on Amendment #1. The certificate 3 holder shall conduct pre-construction investigations in these new areas within 1,000 feet of 4 any area potentially disturbed by facility construction to determine whether any State-5 jurisdictional waters exist in those locations. The certificate holder shall submit a written 6 report on the pre-construction investigation to the Department of Energy and to the 7 Department of State Lands for approval before beginning construction and shall ensure that 8 construction would have no impact on any jurisdictional water identified in the report. 9 10 [Amendment #1]

#### SUCCESSORS AND ASSIGNS VI.

To transfer this site certificate or any portion thereof or to assign or dispose of it in any 11 other manner, directly or indirectly, the certificate holder shall comply with OAR 345-027-0100. 12

#### VII. SEVERABILITY AND CONSTRUCTION

If any provision of this agreement and certificate is declared by a court to be illegal or in 13 conflict with any law, the validity of the remaining terms and conditions shall not be affected, 14 and the rights and obligations of the parties shall be construed and enforced as if the agreement 15 and certificate did not contain the particular provision held to be invalid. 16

#### **VIII. GOVERNING LAW AND FORUM**

17 This site certificate shall be governed by the laws of the State of Oregon. Any litigation or arbitration arising out of this agreement shall be conducted in an appropriate forum in Oregon. 18

#### IX. **EXECUTION AND EFFECTIVE DATE**

This site certificate may be executed in counterparts and will become effective upon 19 signature by the Chair of the Energy Facility Siting Council and the authorized representative of 20 the certificate holder. [Amendment #1 (SFWF); Amendment #1] 21

22 IN WITNESS WHEREOF, this site certificate has been executed by the State of Oregon, acting by and through its Energy Facility Siting Council, and by South Hurlburt Wind, LLC. 23

ENERGY FACILITY SITING COUNCIL

By:

Robert Shiprack, Chair Oregon Energy Facility Siting Council

Date: March 12, 2010

SOUTH HURLBURT WIND, LLC

By:

Derrel A. Grant, Vice-President South Hurlburt Wind, LLC

Date: March 12, 2010