

**FIRST AMENDED
SITE CERTIFICATE
FOR THE
PORT WESTWARD GENERATING PROJECT**

ISSUED BY

OREGON ENERGY FACILITY SITING COUNCIL
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DECEMBER 5, 2003

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**FIRST AMENDED
SITE CERTIFICATE
FOR THE
PORT WESTWARD GENERATING PROJECT**

34 **A. INTRODUCTION**

35 This site certificate for the Port Westward Generating Project ("PWGP or Project") is issued and
36 executed in the manner provided by ORS Chapter 469, by and between the State of Oregon
37 ("State"), acting by and through its Energy Facility Siting Council ("Council"), and the Portland
38 General Electric Company ("PGE" or "Certificate Holder").

39 The findings of fact, reasoning and conclusions of law underlying the terms and conditions of
40 this site certificate are set forth in the following documents, which by this reference are
41 incorporated herein: (a) the Council's Final Order in the Matter of the Application for a Site
42 Certificate for the Port Westward Generating Project, which the Council granted on November 8,
43 2002; and, (b) the Council's Final Order in the Matter of the Site Certificate for the Port
44 Westward Generating Project Request for Amendment No. One, which the Council granted on
December 5, 2003. [Amendment No. 1]

In interpreting this site certificate, any ambiguity shall be clarified by reference to, and in the
following priority: this Site Certificate, the record of the proceedings which led to the Final
Order, and the Application for a Site Certificate for the Port Westward Generating Project. As
used in this Site Certificate, the "application for site certificate" or the "ASC" includes: (a) the
Application for a Site Certificate for the Port Westward Generating Project, which the Office of
Energy ("Office") filed on April 11, 2002; and (b) the Certificate Holder's Request for First
Amendment to the Site Certificate for the Port Westward Generating Project, which the Council
received on October 25, 2003. [Amendment No. 1]

The terms used in this Site Certificate shall have the same meaning set forth in ORS 469.300 and
Oregon Administrative Rules (OAR) 345-001-0010, except where otherwise stated or where the
context clearly indicates otherwise.

34 **B. SITE CERTIFICATION**

35 1. To the extent authorized by State law and subject to the conditions set forth herein, the
36 State approves and authorizes the Certificate Holder to construct, operate and retire a
37 natural gas-fired, combined cycle combustion turbine energy facility, together with
38 certain related or supporting facilities, at the site as described in Section C of this Site
39 Certificate, near Clatskanie, Oregon. ORS 469.401(1).

40
41 2. This site certificate shall be effective (1) until it is terminated pursuant to OAR
42 345-027-0110 or the rules in effect on the date that termination is sought, or (2) until the
43 Site Certificate is revoked pursuant to ORS 469.440 and OAR 345-029-0100 or the
44 statutes and rules in effect on the date that revocation is ordered. ORS 469.401(1).

- 1
2 3. This Site Certificate does not address, and is not binding with respect to, matters that
3 were not addressed in the Council's Final Order. These matters include, but are not
4 limited to: building code compliance, wage, hour and other labor regulations, local
5 government fees and charges, and other design or operational issues that do not relate to
6 siting the Project; and permits issued under statutes and rules for which the decision on
7 compliance has been delegated by the Federal government to a state agency other than
8 the Council. ORS 469.401(4) and 469.503(3).
9
- 10 4. Both the State and the Certificate Holder shall abide by local ordinances and state law
11 and the rules of the Council in effect on the date this Site Certificate is executed. In
12 addition, upon a clear showing of a significant threat to the public health, safety or the
13 environment that requires application of later-adopted laws or rules, the Council may
14 require compliance with such later-adopted laws or rules. ORS 469.401(2).
15
- 16 5. For a permit, license or other approval addressed in and governed by this Site Certificate,
17 the Certificate Holder shall comply with applicable state and federal laws adopted in the
18 future to the extent that such compliance is required under the respective state agency
19 statutes and rules. ORS 469.401(2).
20
- 21 6. Subject to the conditions herein, this Site Certificate binds the State and all counties,
22 cities and political subdivisions in this state as to the approval of the site and the
23 construction, operation and retirement of the Project as to matters that are addressed in
24 and governed by this Site Certificate. ORS 469.401(3).
25
- 26 7. Each affected state agency, county, city and political subdivision in Oregon with
27 authority to issue a permit, license or other approval addressed in or governed by this Site
28 Certificate shall, upon submission of the proper application and payment of the proper
29 fees, but without hearings or other proceedings, issue such permit, license or other
30 approval subject only to conditions set forth in this Site Certificate. ORS 469.401(3).
31
- 32 8. After issuance of this Site Certificate, each state agency or local government agency that
33 issues a permit, license or other approval for the Project shall continue to exercise
34 enforcement authority over such permit, license or other approval. ORS 469.401(3).
35
- 36 9. After issuance of this Site Certificate, the Council shall have continuing authority over
37 the site and may inspect, or direct the Office to inspect, or request another state agency or
38 local government to inspect, the site at any time in order to assure that the Project is being
39 operated consistently with the terms and conditions of this Site Certificate. ORS
40 469.430.
41
- 42 10. The Certificate Holder may develop the energy facility in two phases. Phase 1 would
43 consist of the southernmost generating unit ("Unit 1"), including one combustion turbine
44 generator, heat recovery steam generator, steam generator, one step-up transformer bank,
45 auxiliary transformer, and cooling tower, Phase 1 would also include all of the energy

1 facility components common to the two units and the related or supporting facilities,
2 except the switchyard. Phase 2 would consist of the northernmost generating unit
3 ("Unit 2"), its associated facilities and the switchyard. All conditions of this Site
4 Certificate apply equally to Phase 1 and Phase 2, unless a condition specifies different
5 obligations for Phase 1 or Phase 2. [Amendment No. 1]
6
7

8 C. SITE DESCRIPTIONS

9 C.1. FACILITY

10 11 C.1.a. Major Structures and Equipment

12 **Major Structures and Equipment.** The net electric power output of the energy facility will be
13 about 560 MW. It will use power augmentation, i.e., duct burning, that will allow it to achieve a
14 net electric power output of about 650 MW for a limited number of hours annually on average.
15

16 The energy facility will consist of two combustion turbine generators (General Electric Frame
17 7FB's or comparable combustion turbines), two heat recovery steam generators ("HRSG"), and
18 two steam generators. It will burn natural gas in the combustion turbines and duct burners.
19 Expanding gases from combustion will turn rotors within the turbines that are connected to
20 electric generators. The hot gases exhausted from the combustion turbines and duct burners will
21 be used to raise steam in the HRSGs. Steam from the HRSGs will be expanded through the
22 steam turbines. Each steam turbine will drive its own electric generator. [Amendment No. 1]
23

24 The combustion turbines will be housed in a turbine building that provides thermal insulation,
25 acoustical attenuation and fire extinguishing media containment. The turbine building,
26 occupying a footprint measuring about 230 feet by 560 feet and standing about 90 feet high, will
27 also house the steam turbine generators, condensers, balance of plant equipment, control room,
28 and administrative offices. The enclosure will allow access for routine inspection and
29 maintenance.
30

31 Each of the two HRSGs will occupy a footprint measuring about 50 feet by 150 feet and will
32 stand about 110 feet high. A stack will be provided for each combustion turbine's HRSG. The
33 two stacks will be about 15 to 25 feet in diameter and 200 feet high.
34

35 Six transformers will step-up the combustion turbine and steam turbine generator voltages to the
36 substation voltage of 230 kilovolts ("kV"). Two auxiliary transformers will supply power for
37 plant auxiliary loads. [Amendment No. 1]
38

39 Most of the structures comprising the energy facility, including the combustion and steam
40 turbines and generators, the main step-up transformers, the HRSG, and the control rooms, will be
41 contained within an area measuring about 400 feet by 560 feet.
42

43 Two mechanical-draft cooling towers will be used to remove the waste heat from each main
44 condenser and the plant auxiliary heat exchangers. The cooling towers and circulating water
45 pumps will cover an area of about 75 feet by 650 feet and will stand about 50 feet high.

1
2 A switchyard or dead-end transmission structure will interconnect the plant's output to the
3 230-kV transmission network. The switchyard footprint will measure about 300 feet by 500 feet.
4 [Amendment No. 1]
5

6 Additional facilities will include: a plant services/warehouse building; two boiler feed pump
7 buildings; a fire water pump building; a water treatment building; a clarifier; a settling basin; a
8 condensate tank, a fire water/service water storage tank and a demineralized water storage tank
9 (each with 440,000-gallon capacity); a natural gas metering station; a natural gas compressor
10 station with electric compressors of 1,000 to 7,000 horsepower total, enclosed in a building with
11 acoustical insulation; and, an aqueous ammonia storage tank (with 100,000-gallon capacity and
12 equipped with containment). [Amendment No. 1]
13

14 Natural gas will not be stored at the energy facility site. Diesel fuel for the fire pumps will be
15 stored in an aboveground tank. Water treatment chemicals will be stored in permanent
16 aboveground storage tanks or portable plastic tanks (totes). To prevent storm water runoff from
17 chemical storage, all fuel and chemical storage will be inside buildings or under cover in paved
18 areas with a curb. All individual spill containment areas will be designed to hold at least
19 110 percent of the volume of liquids stored within them.
20

21 A complete fire protection system will be installed within the buildings and yard areas at the
22 energy facility site. The system will be designed to meet the requirements of the Uniform Fire
23 Code, as amended by Oregon and the National Fire Protection Association, and all other
24 applicable fire protection standards. The fire protection system will include a fire water system,
25 a dry chemical extinguishing system, a carbon dioxide ("CO₂") extinguishing system, and
26 portable fire extinguishers. The road system within the energy facility site will be designed for
27 access by large trucks needed for equipment and material deliveries. The minimum turning
28 inside radius for roads will be 40 feet.
29

30 The fire water system will include a fire water supply loop, fire hydrants, sprinkler systems, and
31 hoses placed at appropriate locations. Reserved capacity in the 180,000-gallon fire water/service
32 water storage tank will serve as the firewater source.
33

34 The combustion turbine enclosures will be protected by foam or CO₂ systems. If the systems
35 were to activate, an alarm will sound and/or a visual indicator will light up on the gas turbine
36 control panel.
37

38 Portable fire extinguishers will be placed at key locations within the energy facility site. The
39 type and number of portable fire extinguishers will conform to applicable code requirements.
40

41 The Certificate Holder may develop the whole facility at the same time or it may develop only
42 one of the generating units and the related or supporting facilities ("Phase 1") or the two units of
43 the energy facility in two distinct phases ("Phase 1" and "Phase 2"). As referred to in this Site
44 Certificate, the Certificate Holder would develop Phase 1 first if it develops the energy facility in
45 phases. Phase 1 would consist of the southernmost generating unit ("Unit 1"), including a

1 combustion turbine generator, heat recovery steam generator, steam generator, one step-up
2 transformer bank, auxiliary transformer, and cooling tower. Phase 1 would also include all of the
3 energy facility components common to the two units and the related or supporting facilities,
4 except the switchyard, which the Certificate Holder would construct with the northernmost
5 generating unit ("Unit 2") and associated facilities as part of Phase 2. [Amendment No. 1]
6

7 **Output.** The energy facility will have a net electric power output of about 560 MW (280 MW
8 per generating unit) at an average annual site condition of 51 degrees Fahrenheit, 14.691 pounds
9 per square inch barometric pressure, and 78 percent relative humidity. The new and clean heat
10 rate will be about 6,790 Btu (higher heating value). [Amendment No. 1]
11

12 With power augmentation technologies (duct burning), the energy facility will have a net electric
13 power output of about 650 MW (325 MW per generating unit) and a new and clean heat rate of
14 about 7,100 Btu (higher heating value). The Certificate Holder proposes to operate the energy
15 facility with power augmentation technologies for 3,000 hours annually on average. [Amendment
16 No. 1]
17

18 **Fuel Use.** The energy facility will use natural gas as the only fuel to power the turbines and the
19 power augmentation technologies. It will use 4,600 MM Btu per hour (2,300 MM BTU per hour
20 per generating unit) of natural gas at full load with the duct burners in operation at the average
21 annual site condition. [Amendment No. 1]
22

23 **Water Use.** The energy facility will obtain water to generate steam and to cool the steam
24 process from an existing PGE intake structure on the Bradbury Slough of the Columbia River.
25 The Certificate Holder will use water from PGE's existing industrial water right and, if
26 necessary, will enter into a contract with the Port of St. Helens, which has an existing water
27 permit, to obtain water sufficient for operation of the energy facility. [Amendment No. 1]
28

29 Average water demand at the energy facility will be about 2,800 gallons per minute ("gpm"), or
30 4.0 million gallons per day ("gpd"). Peak water demand will be about 3,700 gpm, 5.4 million
31 gpd, or 8.3 cubic feet per second ("cfs"). These amounts would be reduced by one-half for
32 Unit 1 and for Unit 2. [Amendment No. 1]
33

34 The energy facility will require no new state-administered water right, water rights transfer, or
35 surface water right permit for water supply. The Port of St. Helens has an existing municipal
36 water use permit for 30 cfs and PGE has an existing industrial water right for 11.3 cfs.
37 [Amendment No. 1]
38

39 The water rights have a permitted point of diversion, where existing withdrawals occur and the
40 energy facility withdrawals will occur. PGE owns and operates the existing point of diversion.
41 To serve the energy facility, PGE will place additional pumps within the existing intake facility.
42 PGE will employ fish screens compliant with National Marine Fisheries Service ("NMFS")
43 screening criteria and Oregon Department of Fish and Wildlife ("ODFW") criteria. [Amendment
44 No. 1]
45

1 **Wastewater.** Process blowdown is washdown water, filter backwash or other non-sanitary
2 liquid waste produced within the energy facility. The average volume of process blowdown for
3 both units combined will be about 190 gpm. Cooling system blowdown is water withdrawn from
4 the cooling system to control the buildup of dissolved salts. The average volume of cooling
5 system blowdown for both units combined will be about 460 gpm, but it could vary depending
6 on the quality of the river water supply. The energy facility will discharge its process and
7 cooling system blowdown to the Columbia River under a National Pollution Discharge
8 Elimination System (“NPDES”) permit that the Port of St. Helens has requested from DEQ.
9 [Amendment No. 1]

10
11 The Certificate Holder will discharge sanitary sewage to an engineered septic tank and drain
12 field at a rate of about 500 gallons per day, as permitted by a Water Pollution Control Facilities
13 permit. The Certificate Holder will route storm water from roofs and paved areas to pervious
14 areas to percolate into the shallow groundwater.

15
16 **C.1.b. Related or Supporting Facilities**

17 The energy facility will include the following related or supporting facilities:

18
19 **Natural Gas Pipeline.** Natural gas will fuel the combustion turbine generators and duct burners.
20 The energy facility will be served by the Kelso-Beaver Pipeline, an existing FERC-regulated
21 interstate pipeline with a current capacity of 193,000 decatherms per day. PGE owns the
22 pipeline jointly with two other parties. To create the additional capacity that will be required to
23 serve the energy facility, PGE will add 1,000 to 7,000 compressor horsepower to the Port
24 Westward site and/or up to 8,000 compressor horsepower to the Kelso-Beaver Pipeline. All
25 work on the existing pipeline will be subject to FERC approval. The addition of compressor
26 horsepower is intended to ensure 300 to 520 psig gas pressure at the Port Westward Industrial
27 Area with total capacity of 310 million standard cubic feet/day. [Amendment No. 1]

28
29 The interconnecting pipeline, about 18 inches in diameter, between the existing Kelso-Beaver
30 Pipeline and the energy facility will be about 1,000 feet long and will be installed below grade
31 with appropriate cathodic protection.

32
33 **Water Supply Pipeline.** Water supply for the energy facility will be drawn from Bradbury
34 Slough at about River Mile 53.8 of the Columbia River from an existing PGE intake facility for
35 the PGE Beaver Generating Plant. The pump capacity of the existing intake facility will be
36 expanded. No major structural improvements or modifications to the intake facility will be
37 required. However, PGE will upgrade the fish screens to comply with NMFS and ODFW
38 criteria regardless of whether it builds the Port Westward Generating Project. The Certificate
39 Holder will install a water supply pipeline about 20 inches in diameter and 6,000 feet long to
40 convey water from the intake facility to the energy facility. The water supply pipeline will
41 traverse upland areas and will avoid wetlands. [Amendment No. 1]

42
43 **Wastewater Pipeline.** Process and cooling wastewater discharged from the energy facility will
44 be collected in a settling basin and returned to the Columbia River about one-half mile northwest
45 of the energy facility, pursuant to the Port of St. Helens’ NPDES permit. [Amendment No. 1]

1
2 **Utility Lines Between the Energy Facility Site and the PGE Beaver Generating Plant.** The
3 Certificate Holder will construct water, backup electricity and communications lines between the
4 existing PGE Beaver Generating Plant and the energy facility. The Certificate Holder will install
5 the lines below ground within existing roadways. Potable water may be conveyed to the energy
6 facility in a pipeline from the potable water storage tank located in the vicinity of the PGE water
7 intake facility that currently serves the PGE Beaver Generating Plant. The potable water
8 pipeline will be about two inches in diameter. The Certificate Holder will install the potable
9 water line underground. The potable water line will join the energy facility's water supply
10 pipeline corridor at their intersection as shown on revised Figure B-2. [Amendment No. 1]
11

12 The Certificate Holder may also construct a demineralized water pipeline about four inches in
13 diameter from the PGE Beaver Generating Plant to the energy facility. If the Certificate Holder
14 constructs the demineralized water pipeline, it will not construct a water treatment building as
15 part of the energy facility. The Certificate Holder will install a backup 13.8 kV electrical
16 distribution line and a communications line in a conduit from the PGE Beaver Generating Plant
17 to the energy facility. The demineralized water line, communications line, and backup electricity
18 lines will be about 1,200 feet long, and the portion of the potable water line between the potable
19 water storage tank and the water supply pipeline corridor will be about 1,700 feet long.
20 [Amendment No. 1]
21

22 **Electric Transmission Line.** The energy facility will deliver electric power to the regional grid
23 by means of a new transmission line consisting of one 230 kV circuit on monopole towers (up to
24 120 feet high) routed along existing power line easements. There are two transmission line
25 alternatives routes under consideration, with two other short alternative segments in the vicinity
26 of the BPA Allston Substation:
27

28 Alternative One. The first alternative will entail routing the transmission line from the
29 energy facility to the Bonneville Power Administration ("BPA") Allston Substation near
30 Alston, Oregon (a distance of about 10 miles).
31

32 Alternative Two. The second alternative will entail routing the transmission line from the
33 energy facility to the PGE Trojan Substation near Goble, Oregon (a distance of about
34 20 miles).
35

36 PWGP and the Summit Project present a unique situation regarding the transmission lines for
37 their facilities. The two proposed energy projects will be located close to each other and will use
38 the same existing transmission corridor and the same towers from Port Westward to the vicinity
39 of the BPA Allston Substation, Alternative One. The towers will be double-circuited, with
40 PWGP on one side and the Summit Project on the other.
41

42 The Portland General Electric Transmission Group will build the transmission lines for either or
43 both projects, depending on which energy facilities are eventually constructed. The transmission
44 line for each project is a related or supporting facility for that project, and therefore, must be
45 built to Council standards. However, because the Council is reviewing the applications for both

1 projects simultaneously, because they will use the same towers, and because the same company
2 will build and operate the transmission lines, the Council has consolidated the reviews within the
3 PWGP proceeding and is placing conditions for the transmission lines in the site certificate for
4 the Port Westward Generating Project.

5
6 Some conditions account for the possibility that the Certificate Holder may construct the Port
7 Westward to BPA Allston Substation Transmission Line separately from constructing the energy
8 facility. Additionally, if the Certificate Holder for PWGP does not construct the energy facility
9 within the time specified in its Site Certificate or if it terminates its Site Certificate, the Council
10 intends that the Certificate Holder of the Summit Project must amend its Site Certificate to
11 include the 230 kV transmission line from the Summit Project to the BPA Allston Substation.

12 13 **C.2. LOCATION OF THE FACILITY**

14 15 **C.2.a. The Energy Facility Site**

16 The energy facility will be located about seven miles by road northeast of the city of Clatskanie
17 in Columbia County, Oregon. The energy facility site will be located on an approximately
18 852-acre parcel leased to PGE by the Port of St. Helens in Section 15, Township 8 North, Range
19 4 West, Willamette Meridian. The energy facility site will be fenced and will comprise about
20 17.5 acres of the larger parcel. [Amendment No. 1]

21
22 Bradbury Slough of the Columbia River lies to the northeast of the energy facility site. Access to
23 the energy facility site will be by traveling about 1.5 miles north on Kallunki Road from its
24 intersection with Alston-Mayger Road. The existing PGE Beaver Generating Plant is located
25 about one-half mile southwest of the energy facility site.

26 27 **C.2.b. Related or Supporting Facility Sites**

28 **Natural Gas Pipeline Corridor.** The proposed natural gas pipeline will be about 18 inches in
29 diameter and will interconnect with the existing Kelso-Beaver Pipeline about 1,000 feet west of
30 the energy facility site. The natural gas pipeline corridor will lie within the 852-acre parcel
31 leased to PGE by the Port of St. Helens and situated within Section 15, Township 8 North, Range
32 4 West, Willamette Meridian.

33
34 **Water Supply Pipeline Corridor.** The proposed water supply pipeline will supply raw water to
35 the energy facility from the existing PGE Beaver Generating Plant water intake structure in
36 Bradbury Slough of the Columbia River. The pipeline right-of-way will be about 50 feet wide
37 and 6,000 feet long, will cover an area of about 7 acres, and will lie within the 852-acre parcel
38 leased to PGE by the Port of St. Helens and situated within Section 15, Township 8 North, Range
39 4 West, Willamette Meridian.

40
41 **Wastewater Pipeline Corridor.** Water discharged from the energy facility will be returned to
42 the Columbia River about one-half mile northwest of the energy facility. The wastewater
43 pipeline corridor will be about 100 feet wide and 2,400 feet long, will cover an area of about 6
44 acres, and will lie primarily within the 852-acre parcel leased to PGE by the Port of St. Helens

1 and situated within Section 15 and 16, Township 8 North, Range 4 West, Willamette Meridian.
2 [Amendment No. 1]
3

4 **Utility Line Corridor Between the Energy Facility Site and the PGE Beaver Generating**

5 **Plant.** The Certificate Holder will construct a potable water pipeline, backup electricity line,
6 communications line and possibly a demineralized water pipeline from the PGE Beaver
7 Generating Plant or the potable water tank to the energy facility site. It would install the lines a
8 minimum depth of three feet below grade in existing roadways entirely with the 825-acre parcel
9 that the Port of St. Helens has leased to PGE. The parcel is located within Section 15 and 22,
10 Township 8 North, Range 4 West, Willamette Meridian. [Amendment No. 1]
11

12 **Transmission Line Corridor.** The transmission line will follow one of two alternative routes:
13

14 Alternative One. Under this alternative, the energy facility will deliver electric power to
15 the BPA Allston Substation near Alston, Oregon, by means of a new 230-kV circuit on
16 monopole steel structures, except where it will have to cross the existing BPA lines. A
17 separate 230 kV circuit will carry the output of the Summit Project on the same
18 structures, as noted above. The new transmission line will be routed on an existing PGE
19 right-of-way that is 250 feet wide, except at the BPA Allston Substation where a new
20 right-of-way may be required. The structures will be placed on or near the centerline of
21 the unused north half of the right-of-way. The transmission line corridor will be about
22 125 feet wide and 10 miles long, will occupy an area of about 300 acres, and will pass
23 through Sections 15, 22, 23, 26, 35 and 36, Township 8 North, Range 4 West, and
24 Sections 31, 5, 6, 4, 3 and 10, Township 7 North, Range 3 West, Willamette Meridian.
25

26 Alternative Two. Under this alternative, the energy facility will deliver electric power to
27 Trojan near Goble, Oregon, by means of a new 230-kV circuit on monopole steel
28 structures. Between PWGP and the BPA Allston Substation, the new transmission line
29 will be routed on an existing PGE right-of-way 250 feet wide as described in Alternative
30 One. The structures will be placed on or near the centerline of the unused north half of
31 the right-of-way. Between the BPA Allston Substation and Trojan, the new transmission
32 line will run parallel to an existing BPA transmission line. This section of the
33 transmission line corridor will be about 125 feet wide and ten miles long, will occupy an
34 area of about 300 acres, and will pass through Sections 10, 11, 15, 14, 23 and 24,
35 Township 7 North, Range 3 West, and Sections 19, 30, 29, 28, 33 and 34, Township 7
36 North, Range 2 West, and Sections 3 and 2, Township 6 North, Range 2 West,
37 Willamette Meridian.
38

39 Alternates 3 and 4. These short alternate segments are in the vicinity of the BPA Allston
40 Substation. They provide flexibility for interconnecting with the substation.
41

42 Unanalyzed Options. As shown on Figure C-2 of the ASC, and in particular the enlarged
43 detail of the BPA Allston Substation, there is a segment of Alignment 1 identified as
44 "2nd (future) circuit." This Site Certificate does not address that proposed segment of
45 Alignment 1.

1
2
3 **D. COUNCIL SITING STANDARDS**
4

5 **D.1. [PLACEHOLDER]**
6 [No Conditions]
7

8 **D.2. ORGANIZATIONAL EXPERTISE**
9

- 10 (1) The Certificate Holder shall report to the Office of Energy (“Office”) in a timely manner
11 any change in the ownership of Portland General Electric Company (“PGE”).
12
- 13 (2) Before beginning construction of the energy facility, the Port Westward to Bonneville
14 Power Administration (“BPA”) Allston Substation Transmission Line, or other related or
15 supporting facilities, the Certificate Holder shall identify to the Energy Facility Siting
16 Council (“Council”) whom it has chosen to act in the role of the engineering,
17 procurement and construction (“EPC”) contractor(s) for specific portions of the work.
18
- 19 (3) If the Certificate Holder chooses a third-party contractor to operate the facility, the
20 Certificate Holder shall submit to the Council the identity of the contractor so the Council
21 may review the qualifications and capability of the contractor to meet the standards of
22 OAR 345-0022-0010. If the Council finds that a new contractor meets these standards,
23 the Council shall not require an amendment to the Site Certificate for the Certificate
24 Holder to hire the contractor.
25
- 26 (4) Any matter of non-compliance under this Site Certificate shall be the responsibility of the
27 Certificate Holder. Any notice of violation issued under the Site Certificate will be
28 issued to the Certificate Holder. Any civil penalties levied shall be levied on the
29 Certificate Holder.
30
- 31 (5) The Certificate Holder shall contractually require the EPC contractor(s) and all
32 independent contractors and subcontractors involved in the construction and operation of
33 the facility to comply with all applicable laws and regulations and with the terms and
34 conditions of the Site Certificate. Such contractual provision shall not operate to relieve
35 the Certificate Holder of responsibility under the Site Certificate.
36
- 37 (6) The Certificate Holder shall obtain necessary state and local permits or approvals
38 required for the construction, operation and retirement of the facility or ensure that its
39 contractors obtain the necessary state and local permits or approvals.
40
- 41 (7) Before beginning construction of the energy facility, the Certificate Holder shall deliver
42 to the Office a copy of the agreement between the Certificate Holder and the Port of St.
43 Helens that provides that the Certificate Holder may use up to 8.3 cubic feet per second
44 of the water right held by the Port of St. Helens under Permit to Appropriate the Public

1 Waters, issued by the State of Oregon, Water Resources Department, Permit No. 53677.
2 [Amendment No. 1]
3

- 4 (8) Before beginning construction of the energy facility, the Certificate Holder shall deliver
5 to the Office evidence that the Oregon Department of Environmental Quality has issued
6 to the Port of St. Helens a National Pollutant Discharge Elimination System (“NPDES”)
7 permit that provides for the discharge of non-sanitary wastewater from the Port Westward
8 Industrial Site, including all non-sanitary wastewater produced by the energy facility.
9
- 10 (9) Before beginning construction of the energy facility, the Certificate Holder shall deliver
11 to the Office a copy of the agreement between the Certificate Holder and the Port of St.
12 Helens that provides for discharge of non-sanitary wastewater from the energy facility by
13 means of the NPDES permit issued to the Port of St. Helens.
14

15 **D.3. RETIREMENT AND FINANCIAL ASSURANCE**
16

- 17 (1) The Certificate Holder shall retire the facility if the Certificate Holder permanently ceases
18 construction or operation of the facility. The Certificate Holder shall retire the facility
19 according to a final retirement plan approved by the Council, as described in OAR 345-
20 027-0110, and prepared pursuant to Condition D.3(2).
21
- 22 (2) Two years before closure of the energy facility, the Certificate Holder shall submit to the
23 Office a proposed final retirement plan for the facility and site, pursuant to OAR 345-
24 027-0110, including:
25
- 26 (a) A plan for retirement that provides for completion of retirement within two years
27 of permanent cessation of operation of the energy facility and that protects the
28 public health and safety and the environment;
29
 - 30 (b) A description of actions the Certificate Holder proposes to take to restore the site
31 to a useful, non-hazardous condition; and,
32
 - 33 (c) A detailed cost estimate, a comparison of that estimate with the dollar amount
34 secured by a bond or letter of credit and any amount contained in a retirement
35 fund, and a plan for assuring the availability of adequate funds for completion of
36 retirement.
37
- 38 (3) The Certificate Holder shall prevent the development of any conditions on the site that
39 would preclude restoration of the site to a useful, non-hazardous condition to the extent
40 that prevention of such site conditions is within the control of the Certificate Holder.
41
- 42 (4) Notwithstanding Conditions D.3(1), D.3(2), and D.3(3), if the Certificate Holder begins
43 construction of the Port Westward to BPA Allston Substation Transmission Line before
44 beginning construction of the energy facility and other related or supporting facilities,
45 Conditions D.3(1), D.3(2), and D.3(3) shall apply to that transmission line separately for

1 as long as it is under construction or operation independent of the energy facility; and, a
2 retirement plan that the Certificate Holder submits may provide that the Port Westward to
3 BPA Allston Substation Transmission Line remains in operation to serve other energy
4 facilities.
5

6 (5) Before beginning construction of the energy facility, the Certificate Holder shall submit
7 to the State of Oregon, through the Council, a bond or letter of credit in the amount of
8 \$8,640,000 (in 2002 dollars as of the second quarter) naming the State of Oregon, acting
9 by and through the Council, as beneficiary or payee.

10
11 (a) If the Certificate Holder develops the energy facility in phases, then before
12 beginning construction of Phase 1, the Certificate Holder shall submit a bond or
13 letter of credit in the amount of \$4,700,000 (in 2002 dollars as of the second
14 quarter). Before beginning construction of Phase 2, the Certificate Holder shall
15 increase the amount of such bond or letter of credit to \$8,640,000 (in 2002 dollars
16 as of the second quarter). [Amendment No. 1]
17

18 (b) In the event the Certificate Holder begins construction of the Port Westward to
19 BPA Allston Substation Transmission Line before beginning construction of the
20 energy facility, the Certificate Holder shall submit to the State of Oregon, through
21 the Council, a bond or letter of credit in the amount of \$394,000 (in 2002 dollars
22 as of the second quarter).
23

24 (c) If the Certificate Holder has previously begun construction of the Port Westward
25 to BPA Allston Substation Transmission Line, the Certificate Holder shall
26 increase the amount of such bond or letter of credit to \$8,640,000 (in 2002 dollars
27 as of the second quarter) before beginning construction of the energy facility. If
28 the Certificate Holder develops the energy facility in phases, the Certificate
29 Holder shall increase the amount of such bond or letter of credit to \$4,700,000 (in
30 2002 dollars as of the second quarter) before beginning construction of Phase 1
31 and to \$8,640,000 (in 2002 dollars as of the second quarter) before beginning
32 construction of Phase 2. [Amendment No. 1]
33

34 (d) The form of the bond or letter of credit and identity of the issuer shall be subject
35 to approval by the Council.
36

37 (e) The Certificate Holder shall maintain a bond or letter of credit in effect at all
38 times until the energy facility or the Port Westward to BPA Allston Substation
39 Transmission Line has been retired, as appropriate.
40

41 (f) The calculation of 2002 dollars shall be made using the U.S. Gross Domestic
42 Product Implicit Price Deflator, Chain-Weight, as published in the Oregon
43 Department of Administrative Services' "Oregon Economic and Revenue
44 Forecast," or by any successor agency (the "Index"). If at any time the Index is

1 no longer published, the Council shall select a comparable calculation of
2 2002 dollars.

3
4 (g) The amount of the bond or letter of credit account shall increase annually by the
5 percentage increase in the Index.

6
7 (h) The Certificate Holder shall not revoke or reduce the bond or letter of credit
8 before retirement of the facility without approval by the Council.

9
10 (6) The Certificate Holder shall describe in the annual report submitted to the Council,
11 pursuant to OAR 345-026-0080, the status of the retirement fund or other instrument to
12 ensure it has adequate funds to restore the site.

13
14 (7) Before beginning construction of the energy facility, the Certificate Holder shall prepare
15 and submit to the Office a materials management and monitoring plan that addresses the
16 handling of hazardous substances, the measures it will implement to prevent site
17 contamination, and how it will document implementation of the plan during construction.
18 The materials management and monitoring plan shall be subject to approval by the
19 Office. For the purpose of this condition and Conditions D.3(8), D.3(10), D.3(11), and
20 D.3(12) below, the terms "release" and "hazardous substances" shall have the meanings
21 set forth at ORS 465.200.

22
23 (8) Before beginning operation of the energy facility, the Certificate Holder shall prepare and
24 submit to the Office a materials management and monitoring plan that addresses the
25 handling of hazardous substances, the measures it will implement to prevent site
26 contamination, and how it will document implementation of the plan during operation.
27 The materials management and monitoring plan shall be subject to approval by the
28 Office.

29
30 (9) Not later than 10 years after the date of commercial operation of Phase 1 of the energy
31 facility, and each 10 years thereafter during the life of the energy facility, the Certificate
32 Holder shall complete an independent Phase I Environmental Site Assessment of the
33 energy facility site. Within 30 days after its completion, the Certificate Holder shall
34 deliver the Phase I Environmental Site Assessment report to the Office. [Amendment
35 No. 1]

36
37 (10) In the event that any Phase I Environmental Site Assessment identifies improper handling
38 or storage of hazardous substances or improper record keeping procedures, the Certificate
39 Holder shall correct such deficiencies within six months after completion of the
40 corresponding Phase I Environmental Site Assessment. It shall promptly report its
41 corrective actions to the Office. The Council shall determine whether the corrective
42 actions are sufficient.

43
44 (11) The Certificate Holder shall report any release of hazardous substances, pursuant to DEQ
45 regulations, to the Office within one working day after the discovery of such release.

1 This obligation shall be in addition to any other reporting requirements applicable to such
2 a release.

3
4 (12) If the Certificate Holder has not remedied a release consistent with applicable Oregon
5 Department of Environmental Quality standards or if the Certificate Holder fails to
6 correct deficiencies identified in the course of a Phase I Environmental Site Assessment
7 within six months after the date of the release or the date of completion of the Phase I
8 Environmental Site Assessment, the Certificate Holder shall submit within such six-
9 month period to the Council for its approval an independently prepared estimate of the
10 additional cost of remediation or correction.

11
12 (a) Upon approval of an estimate by the Council, the Certificate Holder shall increase
13 the amount of its bond or letter of credit by the amount of the estimate.

14
15 (b) In no event, however, shall the Certificate Holder be relieved of its obligation to
16 exercise all due diligence in remedying a release of hazardous substances or
17 correcting deficiencies identified in the course of a Phase I Environmental Site
18 Assessment.

19
20 (13) All funds received by the Certificate Holder from the salvage of equipment and buildings
21 shall be committed to the restoration of the energy facility site to the extent necessary to
22 fund the approved site restoration and remediation.

23
24 (14) The Certificate Holder shall pay the actual cost to restore the site to a useful, non-
25 hazardous condition at the time of retirement, notwithstanding the Council's approval in
26 the Site Certificate of an estimated amount required to restore the site.

27
28 (15) If the Council finds that the Certificate Holder has permanently ceased construction or
29 operation of the facility without retiring the facility according to a final retirement plan
30 approved by the Council, as described in OAR 345-027-0110 and prepared pursuant to
31 Condition D.3(2), the Council shall notify the Certificate Holder and request that the
32 Certificate Holder submit a proposed final retirement plan to the Office within a
33 reasonable time not to exceed 90 days.

34
35 (a) If the Certificate Holder does not submit a proposed final retirement plan by the
36 specified date or if the Council rejects the retirement plan that the Certificate
37 Holder submits, the Council may direct the Office to prepare a proposed a final
38 retirement plan for the Council's approval.

39
40 (b) Upon the Council's approval of the final retirement plan prepared pursuant to
41 subsection (a), the Council may draw on the bond or letter of credit described in
42 Condition D.3(5) and shall use the funds to restore the site to a useful, non-
43 hazardous condition according to the final retirement plan, in addition to any
44 penalties the Council may impose under OAR Chapter 345, Division 29.
45

1 (c) If the amount of the bond or letter of credit is insufficient to pay the actual cost of
2 retirement, the Certificate Holder shall pay any additional cost necessary to
3 restore the site to a useful, non-hazardous condition.
4

5 (d) After completion of site restoration, the Council shall issue an order to terminate
6 the Site Certificate if the Council finds that the facility has been retired according
7 to the approved final retirement plan.
8

9 **D.4. LAND USE**

10
11 (1) Before beginning construction of the energy facility, the Certificate Holder shall submit a
12 landscaping plan for the energy facility to Columbia County as part of its building permit
13 application for the energy facility. The landscaping plan shall be subject to County
14 approval, provided that the plan is consistent with this Site Certificate and the Final
15 Order. The Certificate Holder shall implement the landscaping plan.
16

17 (2) Before beginning construction of the energy facility, the Certificate Holder shall submit a
18 site plan to Columbia County as part of its building permit application.
19

20 (3) Before beginning construction of the energy facility, the Certificate Holder shall submit
21 to Columbia County as part of its building permit application for the energy facility a
22 final parking lot plan that complies with Section 1400 of the Columbia County Zoning
23 Ordinance. The parking plan shall be consistent with this Site Certificate and Attachment
24 D of the Final Order. The Certificate Holder shall implement the parking lot plan.
25

26 (4) Before beginning construction of the energy facility or the Port Westward to BPA Allston
27 Substation Transmission Line, as appropriate, the Certificate Holder shall apply for and
28 obtain all appropriate land use permits from Columbia County and the City of Rainier.
29

30 (5) Before beginning construction of the energy facility, the Certificate Holder shall enter
31 into a written contract with Columbia County that recognizes the rights of land owners
32 who are adjacent to and nearby the corridor for the transmission line from the BPA
33 Allston Substation to the Trojan Nuclear Plant where it crosses PF-76 and FA-19 zones to
34 conduct forest operations consistent with the Forest Practices Act and Rules for uses
35 authorized in OAR 660-006-0025, subsections (4)(e), (m), (s), (t), and (w).
36

37 **D.5. STRUCTURAL STANDARD**

38
39 (1) The Certificate Holder shall design, engineer and construct the facility to avoid dangers
40 to human safety presented by seismic hazards affecting the site that are expected to result
41 from all maximum probable seismic events. In no event shall the recommended seismic
42 design parameters be any less than those prescribed by the Oregon Uniform Building
43 Code. As used in this condition, "seismic hazard" includes ground shaking, landslide,
44 liquefaction, lateral spreading, tsunami inundation, fault displacement, and subsidence.
45

- 1 (2) If the Certificate Holder does not have subsurface information for design of the
2 transmission lines that is acceptable to the Office and the Oregon Department of Geology
3 and Mineral Industries (“DOGAMI”), then the Certificate Holder shall drill exploratory
4 borings at critical locations during final design of the proposed transmission lines.
5
- 6 (3) Before beginning construction of the facility, the Certificate Holder shall provide the
7 Office and DOGAMI with a report containing results of geotechnical investigations and
8 recommendations for the design of the energy facility, transmission lines and other
9 related or supporting facilities.
10
- 11 (a) The Certificate Holder shall prepare the report consistent with the study designs
12 detailed in the Section D.5 of the Final Order and Section H.3 of the Application
13 for a Site Certificate (“ASC”).
14
- 15 (b) If DOGAMI is not able to review the reports, the Office shall arrange, in
16 consultation with DOGAMI, for an independent review of the report by a
17 qualified registered geologist.
18
- 19 (c) If the Certificate Holder begins construction of the Port Westward to BPA Allston
20 Substation Transmission Line before beginning construction of other parts of the
21 facility, Condition D.5(3) shall apply only to the Port Westward to BPA Allston
22 Substation Transmission Line as long as it is the only part of the facility under
23 construction.
24
- 25 (4) In addition to, or concurrent with Condition D.5(3), before beginning construction within
26 the City of Rainier's Watershed zone, the Certificate Holder shall submit to the City of
27 Rainier, the Office and DOGAMI a geotechnical report prepared by a registered engineer
28 establishing that it can safely accomplish any construction in a known slide hazard area,
29 flood hazard area, or drainage way, or on slopes exceeding 20 percent in that zone.
30
- 31 (5) If the geotechnical investigation reveals evidence that is not described in the ASC, the
32 Certificate Holder shall revise the facility design parameters to comply with appropriate
33 Uniform Building Code requirements.
34
- 35 (6) The Certificate Holder shall notify the Office, the State Building Codes Division and
36 DOGAMI promptly if site investigations or trenching reveals that subsurface conditions
37 differ significantly from those described in the ASC. After the Office receives the notice,
38 the Council may require the Certificate Holder to consult with DOGAMI and the
39 Building Codes Division and to propose mitigation actions.
40
- 41 (7) The Certificate Holder shall notify the Office, the Building Codes Division and
42 DOGAMI promptly if shear zones, artesian aquifers, deformations, or clastic dikes are
43 found at or in the vicinity of the facility site.
44

1 (8) The Certificate Holder shall design, engineer and construct the facility to avoid dangers
2 to human safety presented by non-seismic or aseismic hazards affecting the site. As used
3 in this condition, "non-seismic or aseismic hazards" includes settlement, landslides,
4 groundwater, flooding, and erosion.
5

6 **D.6. SOIL PROTECTION**
7

8 (1) Upon completion of construction in an area, the Certificate Holder shall use native seed
9 mixes to restore vegetation to the extent practicable and shall landscape portions of the
10 site disturbed by construction in a manner compatible with the surroundings and
11 proposed use. Conditions D.6(1) through D.6(6) shall apply to all soil disturbing
12 activities, including maintenance, repair, ~~or~~ reconstruction, and retirement of facilities.
13 [Amendment No. 1]
14

15 (2) The Certificate Holder shall employ the following measures to control soil erosion and
16 sediment runoff by water and wind erosion:
17

18 (a) Avoid excavation and other soil disturbances beyond that necessary for
19 construction of the facility or confine equipment use to specific areas.
20

21 (b) Remove vegetation only as necessary.
22

23 (c) Apply water or mulch, as necessary, for wind erosion control during construction.
24

25 (d) Revegetate those construction areas that will no longer be used.
26

27 (e) Use temporary erosion and sediment control measures, such as sediment fences,
28 straw wattles, bio-filter bags, mulch, permanent and temporary seeding, sediment
29 traps and/or basins, rock check dams or gravel filter berms, and gravel
30 construction entrances, and maintain these features throughout construction and
31 restoration to reduce the potential for soil erosion and sediment runoff.
32

33 (f) Protect soil stockpiles with mulch and plastic sheeting.
34

35 (3) If excessively wet conditions occur during construction, the Certificate Holder shall limit
36 construction activities during such periods to the degree practicable in areas susceptible
37 to soil compaction.
38

39 (4) After completing construction in an area, the Certificate Holder shall monitor the
40 construction area for a period of 12 months to evaluate whether construction-related
41 impacts to soils are being adequately addressed by the mitigation procedures described in
42 the Sediment Erosion and Control Plan. It shall submit its quality assurance measures to
43 the Office for approval before beginning monitoring.
44

- 1 (5) After completing construction in an area, the Certificate Holder shall use the results of the
2 monitoring program in Condition D.6(4) to identify remaining soil impacts associated
3 with construction that require mitigation. As necessary, the Certificate Holder shall
4 implement follow-up restoration measures to address those remaining impacts and shall
5 report in a timely manner to the Office what measures it has taken.
6
- 7 (6) The Certificate Holder shall remove trapped sediment when the capacity of the sediment
8 trap has been reduced by 50 percent and shall place such sediment in an upland area
9 certified by a qualified wetland specialist.
10
- 11 (7) The Certificate Holder shall contain all fuel and chemical storage in paved spill
12 containment areas with a curb.
13
- 14 (8) The Certificate Holder shall design all inside spill containment areas to hold at least
15 110 percent of the volume of liquids stored within them.
16
- 17 (9) The Certificate Holder shall design all spill containment areas located outdoors to hold at
18 least 110 percent of the volume of liquids stored within them, together with the volume of
19 precipitation that might accumulate during the 100-year return frequency storm.
20
- 21 (10) During operation, the Certificate Holder shall minimize drift from the cooling towers
22 through the use of high efficiency drift eliminators that allow no more than 0.002 percent
23 drift.
24

25 **D.7. PROTECTED AREAS**

26 [No Conditions]
27

28 **D.8. FISH AND WILDLIFE HABITAT**
29

- 30 (1) The Certificate Holder shall, to the extent practicable, avoid and, where avoidance is not
31 possible, minimize construction and operation disturbance to areas of native vegetation
32 and areas that provide important wildlife habitat. With respect to construction of the
33 facility, the Certificate Holder shall mitigate possible impacts to wildlife by measures
34 including, but not limited to, the following:
35
- 36 (a) Posting speed limit signs throughout the energy facility construction zone.
37
- 38 (b) Instructing construction personnel, including construction contractors and their
39 personnel, on sensitive wildlife of the area and on required precautions to avoid
40 injuring or destroying wildlife.
41
- 42 (c) Instructing construction personnel, including construction contractors and their
43 personnel, to watch out for wildlife while driving through the facility site, to
44 maintain reasonable driving speeds so as not to harass or strike wildlife
45 accidentally, and to be cautious and drive at slower speeds in a period from one

1 hour before sunset to one hour after sunrise when some wildlife species are the
2 most active.

3
4 (d) Requiring construction personnel, including construction contractors and their
5 personnel, to report any injured or dead wildlife detected at the facility site.

6
7 (2) The Certificate Holder shall construct, operate and retire the facility to minimize impacts
8 to vegetation and habitat.

9 (a) The energy facility shall be located within previously disturbed Habitat Category
10 6, non-native grassland Habitat Category 4, and palustrine emergent and
11 forested/scrub-shrub wetlands Habitat Category 3.

12 (b) The Certificate Holder shall limit Habitat Category 3 impacts to 0.43 acres of
13 permanent impact within palustrine emergent and forested/scrub-shrub wetlands.

14 (3) The Certificate Holder shall site transmission towers outside wetlands and waterways to
15 the greatest extent practicable. If the Certificate Holder must site transmission towers in
16 riparian zones or wetlands, the Certificate Holder shall use a monopole design for the
17 transmission towers to minimize ground impacts and vegetation control, except where it
18 would have to cross the existing BPA lines.

19 (4) The Certificate Holder shall prohibit construction and maintenance equipment from
20 entering perennial and intermittent streams, except as follows:

21 (a) Construction equipment may cross a stream if it is dry;

22 (b) Construction equipment may cross streams that are not dry by using temporary
23 structures to bridge the stream in a manner that minimizes disturbance to the bed,
24 banks and water of the stream;

25 (c) Construction equipment may cross a wet stream if the Certificate Holder notifies
26 the Division of State Lands, the Oregon Department of Fish and Wildlife
27 (“ODFW”) and the Office of its intent to cross the stream prior to the crossing and
28 these agencies concur that the crossing is acceptable.

29 (A) The Certificate Holder shall return any stream bed or bank that it disturbs
30 during construction or maintenance to conditions that are comparable to
31 pre-disturbed conditions, including stabilizing the bed and banks and
32 revegetating the riparian area with appropriate plant species.

33 (B) The Certificate Holder shall construct wet stream crossings within the
34 ODFW-designated in-water work period.

35 (C) The Certificate Holder shall keep the wet stream crossing width to the
36 minimum needed.
37
38
39
40
41
42

- 1
- 2 (5) The Certificate Holder shall take advantage of existing roads to the extent practicable.
- 3 (6) Before beginning construction of the energy facility or beginning construction of the
4 transmission lines, and in the appropriate season, the Certificate Holder shall conduct
5 wildlife surveys within 0.25 miles of the site to locate great blue heron rookeries. Should
6 it locate rookeries, the Certificate Holder shall consult with ODFW and the Office to
7 determine the action necessary to avoid adverse impacts. If it cannot avoid impacts, the
8 Certificate Holder shall suspend construction in the affected areas during the critical
9 nesting period of the species, as determined by the Office in consultation with ODFW.
- 10 (7) During construction of Phase 1 of the energy facility, the Certificate Holder shall relocate
11 the existing osprey nest platform to an ODFW-approved location for the period between
12 October 1 and March 30. [Amendment No. 1]
- 13 (8) Before beginning construction of the facility, the Certificate Holder shall conduct pre-
14 construction surveys within the analysis area and establish construction buffers around
15 raptor nests during the nesting season, as approved by ODFW. If it is not practical for
16 the Certificate Holder to avoid the nests of non-listed, threatened or endangered raptor
17 species, the Certificate Holder shall implement in a timely manner a mitigation project
18 approved by ODFW that meets the requirements of the Habitat Mitigation policy for “no
19 net loss” appropriate to the Habitat Category.
- 20 (9) The Certificate Holder shall schedule construction at the existing raw water intake pump
21 station to avoid the purple martin nesting season (April 1 through June 30). Before
22 beginning construction at the existing raw water intake pump station, the Certificate
23 Holder shall conduct a survey to determine the exact location of any purple martin nests.
24 Should the Certificate Holder cause unavoidable impacts to occur to any purple martin
25 nest, it shall construct, install and maintain an artificial nest site at a nearby location. It
26 shall pick an appropriate location in consultation with ODFW and the Office.
- 27 (10) When working around riparian areas or waterways, the Certificate Holder shall use only
28 herbicide labeled for use in those areas. The Certificate Holder shall abide by all labeling
29 instructions when using herbicides for vegetation maintenance associated with the energy
30 facility and transmission lines rights-of-way.
- 31 (11) The Certificate Holder shall locate chemical storage, servicing of construction and
32 maintenance equipment and vehicles, and overnight storage of wheeled vehicles at least
33 330 feet from any wetland or waterway.
- 34 (12) The Certificate Holder shall not construct any structure (other than fences and signs)
35 within 50 feet of any Class I river, stream or the emergent vegetation adjacent to such a
36 river or stream or within 25 feet of any other rivers, streams, and sloughs or the emergent
37 vegetation adjacent to such a river, stream, or slough.

- 1 (13) To mitigate for impacts to 19 acres of non-native grassland, the Certificate Holder shall
2 protect 19 acres of on-site emergent wetland habitat identified in the ASC by execution of
3 a conservation easement for the life of the energy facility. Before beginning construction
4 of Phase 1 of the energy facility, the Certificate Holder shall provide a copy of the
5 conservation easement or similar conveyance to the Office. [Amendment No. 1]
- 6 (14) The Certificate Holder shall restore temporary upland and wetland disturbance areas by
7 returning the areas to their original grade and seeding, with appropriate seed mixes as
8 recommended by ODFW and as shown in Table P-7 (ASC, Exhibit P, page P-34), and by
9 mulching the areas with straw. The Certificate Holder shall obtain ODFW and Office
10 concurrence before changing the proposed seed mix.
- 11 (15) The Certificate Holder shall not clear any more riparian vegetation than is necessary for
12 the permitted land use, including clearing required for safety purposes, during
13 construction or operation of the facility.
- 14 (16) During construction of the transmission line(s) and maintenance of the rights-of-way, the
15 Certificate Holder shall limit clearing of vegetation in riparian areas and wetlands to that
16 needed to prevent contact with the transmission line and to meet clearance standards for
17 safety and transmission line reliability.
- 18 (17) The Certificate Holder shall mitigate for impacts to riparian shrub and forest habitat that
19 result in canopy cover of less than 25 percent by revegetating these areas with appropriate
20 native woody species according to the Typical Revegetation Plan (ASC, Exhibit Q, page
21 Q-6.1).
- 22 (18) The Certificate Holder shall, as soon as practicable and appropriate after completing
23 construction in an area, implement the mitigation measures specified in Conditions
24 D.8(13), D.8(14) and D.8(17).
- 25 (19) The Certificate Holder shall monitor revegetated areas for a period of five years and shall
26 ensure that new vegetation has an 80 percent survival rate.
- 27 (20) The Certificate Holder shall monitor and control nuisance and invasive plant species
28 annually for a period of five years in areas where vegetation removal and/or revegetation
29 has occurred in (1) riparian areas and wetlands along the transmission line rights-of-way,
30 and (2) in areas temporarily disturbed by construction of the raw water, gas, and process
31 water discharge lines.
- 32 (21) The Certificate Holder shall submit an annual monitoring report to ODFW and the Office
33 during the five-year monitoring period specified in Condition D.8(20).
- 34 (22) Within one year after completion of construction of the facility or the Port Westward to BPA
35 Allston Substation Transmission Line, if constructed separately, the Certificate Holder shall
36 provide a summary report to ODFW and the Office that identifies the revegetation actions it
37 took and the results of revegetation monitoring conducted to that time. If the Certificate

1 Holder constructs the energy facility in phases, the Certificate Holder shall provide the
2 summary report to ODFW and the Office within one year after completion of each phase.
3 [Amendment No. 1]

4 (23) Within three months after completion of the final annual monitoring survey, the
5 Certificate Holder shall provide a report to ODFW and the Office that presents the results
6 of its revegetation monitoring.

7 (24) If revegetation is not successful at establishing appropriate plant cover and controlling
8 erosion, the Certificate Holder shall take remedial actions as the Office directs.
9

10 **D.9 THREATENED AND ENDANGERED SPECIES**

11
12 (1) Before beginning construction of the transmission line between the BPA Allston
13 Substation and the Trojan Nuclear Plant, the Certificate Holder shall direct qualified
14 personnel to conduct species ground surveys along the transmission line corridor and
15 within 150 feet on either side of the transmission line corridor at the appropriate time of
16 year to determine the presence of listed plant species. If listed plant species are identified
17 in the course of the species ground surveys, their presence shall be noted on maps, and
18 PGE shall provide copies of the maps to the Office and the Department of Agriculture.
19

20 (2) During construction of the transmission lines, the Certificate Holder shall manipulate
21 construction equipment and site poles, towers and access roads to avoid impacts, except
22 as provided in Condition D.9(4), to known populations of state- or federally-listed plant
23 species.
24

25 (3) The Certificate Holder shall ensure that all maintenance practices along the transmission
26 line corridor minimize impacts to known populations of listed plant species.
27

28 (4) In the event the Certificate Holder determines that it cannot avoid known populations of
29 listed plant species, the Certificate Holder shall engage qualified personnel to determine
30 whether the proposed action has the potential to reduce appreciably the likelihood of the
31 survival or recovery of the listed species, notify the Office of its findings, and obtain
32 approval from the Oregon Department of Agriculture before proceeding with
33 construction activities that affect the listed plant species. (OAR 603-073-0090).
34

35 (5) Before beginning construction of the transmission line, the Certificate Holder shall
36 employ measures to protect raptors in the design and construction of transmission lines.
37 It shall design all energized transmission conductors with either a minimum separation of
38 nine feet or other measures to reduce the potential for electrocution of raptors or other
39 birds.
40

41 (6) The Certificate Holder shall not construct at the transmission line terminus at the Trojan
42 Nuclear Plant during the critical peregrine falcon nesting period from January 1 to
43 June 30.

- 1
2 (7) The Certificate Holder shall plant suitable vegetative species for deer forage and cover
3 within the wetland mitigation/enhancement area.
4
5 (8) The Certificate Holder shall coordinate with ODFW about whether to conduct site-
6 specific fish sampling at waterways that do not have confirmation of species presence or
7 absence along the transmission line corridor. If ODFW recommends that the Certificate
8 Holder conduct site-specific sampling, the Certificate Holder shall do so and report the
9 results to ODFW and the Office.

10
11 **D.10. SCENIC AND AESTHETIC VALUES**

- 12
13 (1) During construction of the facility, the Certificate Holder shall ensure that contractors
14 move equipment out of the construction area when it is no longer expected to be used.
15 To the extent practical, contractors shall lower equipment with long arms, such as cranes,
16 bucket trucks, backhoes, when not in use in order to minimize visibility.
17
18 (2) During construction of the facility, the Certificate Holder shall control dust through the
19 application of water.
20
21 (3) During construction of the energy facility, the Certificate Holder shall use directing and
22 shielding devices on lights to minimize off-site glare. When there is no nighttime
23 construction activity, the Certificate Holder shall minimize night lighting consistent with
24 safety and security requirements.
25
26 (4) During operation of the energy facility, the Certificate Holder shall use directing and
27 shielding devices on lights to minimize off-site glare, consistent with safety and security
28 requirements.
29
30 (5) Before beginning construction of the energy facility, the Certificate Holder shall submit
31 to Columbia County and the Office an outdoor lighting plan that shows how it will
32 minimize glare from the energy facility site, consistent with Conditions D.10(3) and
33 D.10(4).
34
35 (6) The Certificate Holder shall paint structures with low-glare paint in colors selected to
36 complement the surrounding foreground and background colors.
37
38 (7) After completion of construction of related and supporting pipelines in an area, the
39 Certificate Holder shall re-vegetate any undeveloped areas disturbed by construction
40 activities using native species, including grasses, shrubs, and trees. If necessary, the
41 Certificate Holder shall water re-vegetated areas on a regular basis until the plant species
42 have been successfully established.
43

1 **D.11. HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES**
2

- 3 (1) Before beginning construction of the Port Westward to BPA Allston Substation
4 Transmission Line or the BPA Allston Substation to Trojan Transmission Line, the
5 Certificate Holder shall complete an archaeological survey of the approved transmission
6 line corridors in consultation with the Oregon Historic Preservation Office (“SHPO”), the
7 Confederated Tribes of the Warm Springs Indian Reservation of Oregon, the
8 Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes
9 of the Siletz Indian Reservation of Oregon, the Chinook Tribe in Washington, and
10 appropriate federal agencies. The Certificate Holder shall ensure that a qualified
11 archaeologist evaluates all cultural resources identified during the cultural resources
12 survey. The Certificate Holder shall report to SHPO and the Office about whether its
13 archaeologist recommends that a discovery is significant or not significant. If SHPO
14 determines that a discovery is significant, the Certificate Holder shall make
15 recommendations to the Council for mitigation in consultation with SHPO, the Office,
16 the tribes, and other appropriate parties. Mitigation measures shall include avoidance or
17 data recovery. [Amendment No. 1]
18
- 19 (2) During construction of the facility, the Certificate Holder shall ensure that a qualified
20 person instructs construction personnel in the identification of cultural materials.
21
- 22 (3) During construction of the facility, in the event any artifacts or other cultural materials
23 are identified, the Certificate Holder shall cease all ground-disturbing activities until a
24 qualified archaeologist can evaluate the significance of the find. The Certificate Holder
25 shall report to SHPO and the Office about whether its archaeologist recommends the
26 artifacts or cultural materials are significant or not significant. If SHPO determines that
27 the materials are significant, the Certificate Holder shall make recommendations to the
28 Council for mitigation in consultation with SHPO, the Office, the tribes, and other
29 appropriate parties. Mitigation measures shall include avoidance or data recovery. The
30 Certificate Holder shall not restart work in the affected area until it has demonstrated to
31 the Office that it has complied with the archaeological permit requirements administered
32 by SHPO. [Amendment No. 1]
33
- 34 (4) The Certificate Holder shall allow monitoring by the Confederated Tribes of the Warm
35 Springs Indian Reservation of Oregon, the Confederated Tribes of the Grand Ronde
36 Community of Oregon, the Confederated Tribes of the Siletz Indian Reservation of
37 Oregon, and the Chinook Tribe in Washington of earth-moving activities within any
38 areas with a potential for containing archaeological remains.
39
- 40 (5) Before beginning construction of the facility or of the Port Westward to BPA Allston
41 Substation Transmission Line separately, the Certificate Holder shall notify the
42 Confederated Tribes of the Warm Springs Indian Reservation of Oregon, the
43 Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes
44 of the Siletz Indian Reservation of Oregon, and the Chinook Tribe in Washington and
45 provide their representatives the opportunity to be available for periodic on-site

1 monitoring during construction activities. If the Certificate Holder constructs the energy
2 facility in phases, the Certificate Holder shall notify the Tribes prior to construction of
3 each phase. [Amendment No. 1]
4

5 **D.12. RECREATION**

6 [No Conditions]
7

8 **D.13. PUBLIC SERVICES**
9

- 10 (1) During construction, the Certificate Holder shall hire a contractor to provide chemical
11 toilet services or other appropriate facilities for construction personnel.
12
- 13 (2) The Certificate Holder shall pay to Columbia County or its designee the appropriate
14 Transportation Improvement Contribution (“TIC”) set forth in Section 2.1 of the
15 Agreement between Columbia County and Portland General Electric Company dated
16 June 5, 2002 (“Agreement”).
17
- 18 (3) The Certificate Holder shall not agree to amend the Agreement with Columbia County to
19 reduce, revoke or waive the requirement for payment of the appropriate TIC without prior
20 approval of the Council; however, such approval by the Council shall not require an
21 amendment to the Site Certificate.
22
- 23 (4) Before beginning construction of the energy facility, the Certificate Holder shall
24 coordinate with Columbia County the improvement and maintenance of signage and
25 striping at the mainline rail crossing on Kallunki Road, including the installation of “**DO**
26 **NOT STOP ON TRACKS**” signs.
27
- 28 (5) If construction of the energy facility occurs concurrently with construction of other
29 projects in the Port Westward Industrial Area, the Certificate Holder shall coordinate
30 with other users of the Port Westward Industrial Area to provide a carpooling program
31 that identifies and/or creates park-and-ride locations to facilitate carpooling.
32
- 33 (6) If construction of the energy facility occurs concurrently with construction of other
34 projects in the Port Westward Industrial Area, the Certificate Holder shall coordinate
35 with Columbia County and other users of the Port Westward Industrial Area on the
36 implementation of a staggered shift schedule if Columbia County determines that traffic
37 conditions warrant it.
38
- 39 (7) During construction of the energy facility, the Certificate Holder shall use barge and
40 railroad deliveries of bulk materials to the extent practicable to minimize the number of
41 freight truck deliveries on local roads.
42
- 43 (8) The Certificate Holder shall construct a fire protection system within the buildings and
44 yard areas of the energy facility site that meets the requirements of the Uniform Fire

1 Code, as amended by Oregon and the National Fire Protection Association standards, and
2 all other applicable fire protection standards in effect at the time of construction.

- 3
4 (9) The Certificate Holder shall provide a dedicated reserve capacity of 180,000 gallons in
5 the raw water storage tank to serve as the fire suppression water source.
6
7 (10) For fire truck access, the minimum inside turning radius of curves in the road system on
8 the energy facility site shall be 40 feet.
9

10 **D.14. WASTE MINIMIZATION, OAR 345-022-0120**

- 11
12 (1) During construction, operation and retirement of the energy facility, the Certificate
13 Holder shall separate recyclable materials from the solid waste stream to the extent
14 practicable, store those materials on site until sufficient quantities exist to make recycling
15 economic, and periodically deliver or sell those materials to a recycling facility.
16
17 (2) During construction, operation and retirement of the energy facility, the Certificate
18 Holder shall segregate all used oil, mercury-containing lights, and lead-acid and nickel-
19 cadmium batteries, store such materials on site, and deliver such materials to a recycling
20 firm specializing in the proper disposal of such materials.
21
22 (3) Upon completion of construction, the Certificate Holder shall dispose of all temporary
23 structures not required for facility operation and all timber, brush, refuse, and flammable
24 or combustible material resulting from clearing of land and construction of the facility.
25
26 (4) During operation of the energy facility, the Certificate Holder shall convey all storm
27 water and water discharges other than sanitary sewage to pervious areas to allow for
28 percolation into the shallow groundwater.
29
30 (5) During operation of the energy facility, the Certificate Holder shall use internal recycling
31 of aqueous streams whereby water shall be recycled several times in the cooling system
32 before being discharged.
33

34 **D.15. CARBON DIOXIDE STANDARD**

- 35 (1) Before beginning construction of the energy facility, the Certificate Holder shall submit
36 to The Climate Trust a bond or letter of credit in the amount of the monetary path
37 payment requirement (in 2002 dollars) as determined by the calculations set forth in
38 Condition D.15(3) and based on the estimated heat rates and capacities certified pursuant
39 to Condition D.15(4) and as adjusted in accordance with the terms of this Site Certificate
40 pursuant to Condition D.15(3)(c). For the purposes of this Site Certificate, the "monetary
41 path payment requirement" means the offset funds determined pursuant to OAR 345-024-
42 0550 and -0560 and the selection and contracting funds that the Certificate Holder must
43 disburse to The Climate Trust, as the qualified organization, pursuant to OAR 345-024-
44 0710 and this Site Certificate. The offset fund rate for the monetary path payment
45 requirement shall be \$0.85 per ton of carbon dioxide (in 2002 dollars). The calculation of

1 2002 dollars shall be made using the Index set forth in Condition D.3(5) and as required
2 below in subsection (g). [Amendment No. 1]
3

4 (a) The form of the bond or letter of credit and identity of the issuer shall be subject
5 to approval by the Council.
6

7 (b) The form of the Memorandum of Understanding "MOU") between the Certificate
8 Holder and the Climate Trust establishing the disbursement mechanism to transfer
9 selection and contracting funds and offset funds to The Climate Trust shall be
10 substantially in the form of Attachment A to this Site Certificate.
11

12 (c) Either the Certificate Holder or The Climate Trust may submit to the Council for
13 the Council's resolution any dispute between the Certificate Holder and The
14 Climate Trust that concerns the terms of the bond, letter of credit, or MOU
15 concerning the disbursement mechanism for the monetary path payments, or any
16 other issues related to the monetary path payment requirement. The Council's
17 decision shall be binding on all parties.
18

19 (d) The bond or letter of credit shall remain in effect until such time as the Certificate
20 Holder has disbursed the full amount of the monetary path payment requirement
21 to The Climate Trust. The Certificate Holder may reduce the amount of the bond
22 or letter of credit commensurate with payments it makes to The Climate Trust.
23 The bond or letter of credit shall not be subject to revocation before disbursement
24 of the full monetary path payment requirement.
25

26 (e) In the event that the Council approves a new Certificate Holder for the energy
27 facility:
28

29 (A) The new Certificate Holder shall submit to the Council for the Council's
30 approval the form of a bond or letter of credit that provides comparable
31 security to the bond or letter of credit of the current Certificate Holder.
32 The Council's approval of a new bond or letter of credit shall not require a
33 site certificate amendment.
34

35 (B) The new Certificate Holder shall submit to the Council for the Council's
36 approval the form of an MOU between the new Certificate Holder and The
37 Climate Trust that is substantially in the form of Attachment A to this Site
38 Certificate. In the case of a dispute between the new Certificate Holder
39 and The Climate Trust concerning the disbursement mechanism for
40 monetary path payments or any other issues related to the monetary path
41 payment requirement, either party may submit the dispute to the Council
42 for the Council's resolution as provided in Condition D.15(1)(c). Council
43 approval of a new MOU shall not require a site certificate amendment.
44

- 1 (f) If calculations pursuant to Condition D.15(5) demonstrate that the Certificate
2 Holder must increase its monetary path payments, the Certificate Holder shall
3 increase the bond or letter of credit sufficiently to meet the adjusted monetary
4 path payment requirement within the time required by Condition D.15(3)(c).
5 Alternately, the Certificate Holder may disburse any additional required funds
6 directly to The Climate Trust within the time required by Condition D.15(3)(c).
7
- 8 (g) The amount of the bond or letter of credit shall increase annually by the
9 percentage increase in the Index, and the disbursement of funds shall be pro-rated
10 within the year to the date of disbursement to The Climate Trust from the calendar
11 quarter of Council approval of the Site Certificate.
12
- 13 (2) The Certificate Holder shall disburse to The Climate Trust offset funds and selection and
14 contracting funds as requested by The Climate Trust. The Certificate Holder shall make
15 disbursements in response to requests from The Climate Trust in accordance with
16 subsections (a), (b), and (c).
17
- 18 (a) The Certificate Holder shall disburse all selection and contracting funds to The
19 Climate Trust before beginning construction.
20
- 21 (b) Upon notice pursuant to subsection (c), The Climate Trust may request from the
22 issuer of the bond or letter of credit the full amount of all offset funds available or
23 it may request partial payment of offset funds at its sole discretion.
24 Notwithstanding the specific amount of any contract to implement an offset
25 project, The Climate Trust may request up to the full amount of offset funds the
26 Certificate Holder is required to provide to meet the monetary path payment
27 requirement.
28
- 29 (c) The Climate Trust may request disbursement of offset funds by providing notice
30 to the issuer of the bond or letter of credit that The Climate Trust has executed a
31 letter of intent to acquire an offset project. The Certificate Holder shall provide
32 that the issuer of the bond or letter of credit disburse offset funds to The Climate
33 Trust within three business days of a request by The Climate Trust for the offset
34 funds in accordance with the terms of the bond or letter of credit.
35
- 36 (3) The Certificate Holder shall submit all monetary path payment requirement calculations
37 to the Office for verification in a timely manner before submitting a bond or letter of
38 credit for Council approval and before entering into an MOU with The Climate Trust.
39 The Certificate Holder shall use the contracted design parameters for capacities and heat
40 rates that it reports pursuant to Condition D.15(4) to calculate the estimated monetary
41 path payment requirement, along with the estimated annual hours of operation of power
42 augmentation technologies. The Certificate Holder shall use the Year One Capacities and
43 Year One Heat Rates that it reports for the facility pursuant to Condition D.15(5) to
44 calculate whether it owes additional monetary path payments.
45

1 (a) The net carbon dioxide emissions rate for the base load gas plant shall not exceed
2 0.675 pounds of carbon dioxide per kilowatt-hour of net electric power output,
3 with carbon dioxide emissions and net electric power output measured on a new
4 and clean basis, as defined in OAR 345-001-0010.

5
6 (b) The net carbon dioxide emissions rate for incremental emissions for the facility
7 operating with power augmentation technologies that increase the capacity and
8 heat rate of the facility above the capacity and heat rate that it can achieve as a
9 base load gas plant on a new and clean basis (“power augmentation
10 technologies”) shall not exceed 0.675 pounds of carbon dioxide per kilowatt-hour
11 of net electric power output, with carbon dioxide emissions and net electric power
12 output measured on a new and clean basis, as the Office may modify such basis
13 pursuant to Condition D.15(4)(d).

14
15 (c) When the Certificate Holder submits the Year One Test reports required in
16 Condition D.15(5), it shall increase its monetary path payments if the calculation
17 using reported data shows that the adjusted monetary path payment requirement
18 exceeds the monetary path payment requirement for which the Certificate Holder
19 had provided a bond or letter of credit before beginning construction, pursuant to
20 Condition D.15(1). The Certificate Holder shall submit its calculations to the
21 Office for verification.

22
23 (A) The Certificate Holder shall make the appropriate calculations and fully
24 disburse any increased funds directly to The Climate Trust within 30 days
25 of filing the Year One Test reports.

26
27 (B) In no case shall the Certificate Holder diminish the bond or letter of credit
28 it provided before beginning construction or receive a refund from The
29 Climate Trust based on the calculations made using the Year One
30 Capacities and the Year One Heat Rates.

31
32 (4) The Certificate Holder shall include an affidavit certifying the heat rates and capacities
33 reported in subsections (a) and (b).

34
35 (a) Before beginning construction of the energy facility, the Certificate Holder shall
36 notify the Council in writing of its final selection of a gas turbine vendor and heat
37 recovery steam generator vendor and shall submit written design information to
38 the Council sufficient to verify the base-load gas plant’s designed new and clean
39 heat rate (higher heating value) and its net power output at the average annual site
40 condition.

41
42 (b) Before beginning construction of the energy facility, the Certificate Holder shall
43 submit written design information to the Council sufficient to verify the facility’s
44 designed new and clean heat rate and its net power output at the average annual
45 site condition when operating with power augmentation technologies.

- 1
2 (c) Before beginning construction of the energy facility, the Certificate Holder shall
3 specify the estimated annual average hours that it expects to operate the power
4 augmentation technologies.
5
6 (d) Upon a timely request by the Certificate Holder, the Office may approve modified
7 parameters for testing the power augmentation technologies on a new and clean
8 basis, pursuant to OAR 345-024-0590(1). The Office's approval of modified
9 testing parameters for power augmentation technologies shall not require a site
10 certificate amendment.
11
12 (5) Within the first 12 months of commercial operation of the energy facility, the Certificate
13 Holder shall conduct a 100-hour test at full power without power augmentation
14 technologies ("Year One Test-1") and a test at full power with power augmentation
15 technologies ("Year One Test-2"). A 100-hour test performed for purposes of the
16 Certificate Holder's commercial acceptance of the facility shall suffice to satisfy this
17 condition in lieu of testing after beginning commercial operation.
18
19 (a) Year One Test-1 shall determine the actual heat rate ("Year One Heat Rate-1")
20 and the net electric power output ("Year One Capacity-1") on a new and clean
21 basis, without degradation, with the results adjusted for the average annual site
22 condition for temperature, barometric pressure, and relative humidity, and using a
23 rate of 117 pounds of carbon dioxide per million Btu of natural gas fuel pursuant
24 to OAR 345-001-0010(35).
25
26 (b) Year One Test-2 shall determine the actual heat rate ("Year One Heat Rate-2")
27 and net electric power output ("Year One Capacity-2") for the facility operating
28 with power augmentation technologies, without degradation, with the results
29 adjusted for the average annual site condition for temperature, barometric
30 pressure and relative humidity, and using a rate of 117 pounds of carbon dioxide
31 per million Btu of natural gas fuel pursuant to OAR 345-001-0010(35). The full
32 power test shall be 100 hours duration unless the Office has approved a different
33 duration pursuant to Condition (4)(d).
34
35 (c) The Certificate Holder shall notify the Office at least 60 days before conducting
36 the tests required in subsections (a) and (b) unless a shorter time is mutually
37 agreed upon.
38
39 (d) Before conducting the tests required in subsections (a) and (b), the Certificate
40 Holder shall, in a timely manner, provide to the Office a copy of the protocol for
41 conducting the tests.
42
43 (e) Within two months after completing the Year One Tests, the Certificate Holder
44 shall provide to the Council a report of the results of the Year One Tests.
45

1 (6) If calculations pursuant to Condition D.15(7) demonstrate that the Certificate Holder
2 must supplement its monetary path payments (“supplemental monetary path payment
3 requirement”), the Certificate Holder shall provide a bond or letter of credit sufficient to
4 meet the supplemental monetary path payment requirement within the time required by
5 Condition D.15(7)(b). The bond or letter of credit shall not be subject to revocation
6 before disbursement of the supplemental monetary path payment requirement.
7 Alternately, the Certificate Holder may disburse in cash any such supplemental monetary
8 path payments directly to The Climate Trust within the time required by
9 Condition D.15(7).

10
11 (7) The Certificate Holder shall submit all supplemental monetary path payment requirement
12 calculations to the Office for verification. The Certificate Holder shall use the Year One
13 Capacity-2 and Year One Heat Rate-2 that it reports for the facility pursuant to Condition
14 D.15(5)(b) to calculate whether it owes supplemental monetary path payments, pursuant
15 to subsections (a) and (b).

16
17 (a) Each five years after beginning commercial operation of the energy facility
18 (“five-year reporting period”), the Certificate Holder shall report to the Office the
19 annual average hours the facility operated with power augmentation technologies
20 during that five-year reporting period, pursuant to OAR 345-024-0590(6). The
21 Certificate Holder shall submit five-year reports to the Office within 30 days of
22 the anniversary date of beginning commercial operation of the energy facility.

23
24 (b) If the Office determines that the energy facility exceeds the projected net total
25 carbon dioxide emissions calculated pursuant to Conditions D.15(4) and D.15(5),
26 prorated for five years, during any five-year reporting period described in
27 subsection (a), the Certificate Holder shall offset excess emissions for the specific
28 reporting period according to subsection (A) and shall offset the estimated future
29 excess emissions according to subsection (B), pursuant to OAR 345-024-0600(4).
30 The Certificate Holder shall offset excess emissions using the monetary path as
31 described in OAR 345-024-0710, except that contracting and selecting funds shall
32 equal twenty (20) percent of the value of any offset funds up to the first \$250,000
33 (in 2002 dollars) and 4.286 percent of the value of any offset funds in excess of
34 \$250,000 (in 2002 dollars). The Certificate Holder shall disburse the funds to The
35 Climate Trust within 30 days after notification by the Office of the amount that
36 the Certificate Holder owes.

37
38 (A) In determining the excess carbon dioxide emissions that the Certificate
39 Holder must offset for a five-year period, the Office shall apply OAR 345-
40 024-0600(4)(a). The Certificate Holder shall pay for the excess emissions
41 at \$0.85 per ton of carbon dioxide emissions (in 2002 dollars). The Office
42 shall notify the Certificate Holder and The Climate Trust of the amount of
43 payment required, using the monetary path, to offset excess emissions.
44

1 (B) The Office shall calculate estimated future excess emissions and notify the
2 Certificate Holder of the amount of payment required, using the monetary
3 path, to offset them. To estimate excess emissions for the remaining
4 period of the deemed 30-year life of the facility, the Office shall use the
5 parameters specified in OAR 345-024-0600(4)(b). The Certificate Holder
6 shall pay for the estimated excess emissions at \$ 0.85 per ton of carbon
7 dioxide (in 2002 dollars). The Office shall notify the Certificate Holder of
8 the amount of payment required, using the monetary path, to offset future
9 excess emissions.

10
11 (8) The combustion turbine for the base-load gas plant and power augmentation technologies
12 shall be fueled solely with pipeline quality natural gas or with synthetic gas with a carbon
13 content per million Btu no greater than pipeline-quality natural gas.

14
15 (9) With respect to incremental capacity and fuel consumption increases for which the
16 Certificate Holder has not previously complied with the carbon dioxide standard, the
17 Certificate Holder shall comply substantially with Conditions D.15(1) through D.15(8) in
18 lieu of the Council's requiring an amendment, provided that:

19
20 (a) The Council determines, pursuant OAR 345-027-0050, that the Certificate Holder
21 does not otherwise require an amendment, and further provided that:

22
23 (b) The Certificate Holder shall meet the appropriate carbon dioxide emissions
24 standard and monetary offset rate in effect at the time the Council makes its
25 determination pursuant to OAR 345-027-0050.

26
27 (10) Notwithstanding Conditions D.15(1) through d.15(9), if the Certificate Holder begins
28 construction of the Port Westward to BPA Allston Substation Transmission Line, but no
29 other part of the energy facility or other related or supporting facilities, the Certificate
30 Holder shall not be required to comply with Conditions D.15(1) through D.15(9). The
31 Certificate Holder shall comply with Conditions D.15(1) through D.15(9) in connection
32 with construction of any part of the energy facility or related or supporting facilities other
33 than the Port Westward to BPA Allston Substation Transmission Line.

34
35 (11) If the Certificate Holder begins construction of Phase 1, but not Phase 2, the Certificate
36 Holder shall comply with Conditions D.15(1) through D.15(9) for Phase 1. If the
37 Certificate Holder later begins construction of Phase 2, the Certificate Holder shall
38 comply with Conditions D.15(1) through D.15(9)for Phase 2. [Amendment No. 1]

39
40
41 **E. OTHER APPLICABLE REGULATORY REQUIREMENTS:**

42 **E.1. REQUIREMENTS UNDER COUNCIL JURISDICTION**

1 **E.1.a. Noise**

- 2
- 3 (1) During construction of the facility, the Certificate Holder shall schedule most heavy
4 construction to occur during daylight hours. Construction work at night shall be limited
5 to work inside buildings and other structures when possible.
6
- 7 (2) During construction of the facility, the Certificate Holder shall require contractors to
8 equip all combustion engine-powered equipment with exhaust mufflers.
9
- 10 (3) During construction of the energy facility, transmission lines or other related or
11 supporting facilities, the Certificate Holder shall establish a complaint response system at
12 the construction manager's office to address noise complaints.
13
- 14 (4) Within six months after the start of commercial operation of the energy facility, the
15 Certificate Holder shall retain a qualified noise specialist to measure noise levels
16 associated with the energy facility operation when environmental conditions are expected
17 to result in maximum sound propagation between the source and the receivers and when
18 the energy facility is operating in a typical operations mode that produces maximum
19 noise levels.
20
- 21 (a) The specialist shall measure noise levels at sites (1), (2), (5), and (6), as described
22 in Exhibit X of the ASC, to determine if actual noise levels are within the levels
23 specified in the applicable noise regulations in OAR 345-035-0035(1)(b)(B)(i).
24
- 25 (b) The Certificate Holder shall report the results of the noise evaluation to the
26 Office.
27
- 28 (c) If actual noise levels do not comply with applicable DEQ regulations, the
29 Certificate Holder shall take those actions necessary to comply with the
30 regulations as soon as practicable.
31
- 32 (d) If initial measurements show that actual noise levels increase at site (5) by 7 dBA
33 or more, the Certificate Holder shall measure the noise levels as specified in this
34 condition and shall repeat the process outlined in subsections (a), (b), and (c) for
35 site (5) within six months after completion of the initial measurements.
36
- 37 (5) The Certificate Holder shall install silencers on short duration noise sources (e.g. steam
38 vents) from the heat recovery steam generator.
39

40 **E.1.b. Wetlands and Removal/Fill Permit**

- 41
- 42 (1) Before beginning construction of Phase 1 of the energy facility or the Port Westward to
43 BPA Allston Substation Transmission Line, as appropriate, the Certificate Holder shall
44 obtain a U.S. Army Corps of Engineers and Oregon Division of State Lands Joint
45 Removal/Fill Permit substantially in the form of the Removal/Fill Permit in Attachment

1 C; provided, that mitigation required under the Removal/Fill Permit shall allow for
2 accommodation of Corps of Engineers mitigation requirements, subject to the
3 concurrence of the Office, in consultation with the Division of State Lands and affected
4 federal agencies. [Amendment No. 1]
5

- 6 (2) The Certificate Holder shall comply with state laws and rules applicable to the
7 Removal/Fill Permit that are adopted in the future to the extent that such compliance is
8 required under the respective statutes and rules.
9

10 **E.1.c. Public Health and Safety**
11

- 12 (1) If local public safety authorities notify the Certificate Holder and the Office that the
13 operation of the energy facility is contributing significantly to ground level fogging or
14 icing along public roads and is likely to pose a significant threat to public safety, the
15 Certificate Holder shall cooperate with local public safety authorities regarding the
16 posting of warning signs on affected roads and the implementation of other reasonable
17 safety measures.
18

- 19 (2) The Certificate Holder shall design the transmission lines and backup electricity lines so
20 that alternating current electric fields shall not exceed 9 kV per meter at one meter above
21 the ground surface in areas accessible to the public. [Amendment No. 1]
22

- 23 (3) The Certificate Holder shall design the transmission lines and backup electricity lines so
24 that induced currents and voltage resulting from the transmission lines are as low as
25 reasonably achievable. [Amendment No. 1]
26

- 27 (4) The Certificate Holder shall develop and implement a program that provides reasonable
28 assurance that all fences, gates, cattle guards, trailers, or other objects or structures of a
29 permanent nature that could become inadvertently charged with electricity are grounded
30 or bonded throughout the life of the transmission line.
31

- 32 (5) The Certificate Holder shall restore or mitigate the reception of radio and television at
33 residences and commercial establishments in the primary reception area to the level
34 present before operation of the transmission line at no cost to residents or businesses
35 experiencing interference resulting from the transmission line.
36

- 37 (6) The Certificate Holder shall design, construct and operate the transmission lines and
38 backup electricity lines in accordance with the requirements of the National Electrical
39 Safety Code. [Amendment No. 1]
40

- 41 (7) The Certificate Holder shall take reasonable steps to reduce or manage exposure to
42 electromagnetic fields (EMF), consistent with Council findings presented in the "Report
43 of EMF Committee to the Energy Facility Siting Council," March 30, 1993, and
44 subsequent findings. Effective on the date of this Site Certificate, the Certificate Holder
45 shall provide information to the public, upon request, about EMF levels associated with

1 the energy facility and related transmission lines and backup electricity lines.
2 [Amendment No. 1]
3

4 (8) At least 30 days before beginning preparation of detailed design and specifications for the
5 electrical transmission line(s) and backup electricity line(s) or the natural gas pipeline,
6 the Certificate Holder shall consult with the Oregon Public Utility Commission staff to
7 ensure that its designs and specifications are consistent with applicable codes and
8 standards. [Amendment No. 1]
9

10 (9) With respect to the related or supporting natural gas pipeline, the Certificate Holder shall
11 design, construct and operate the pipeline in accordance with the requirements of the U.S.
12 Department of Transportation as set forth in Title 49, Code of Federal Regulations,
13 Part 192.
14

15 **E.1.d. Water Pollution Control Facilities Permit**

16
17 (1) Before beginning commercial operation of Phase 1 of the energy facility, the Certificate
18 Holder shall demonstrate that the DEQ has issued to the Certificate Holder a Water
19 Pollution Control Facilities Permit, substantially in the form of Attachment B.1, allowing
20 for on-site sanitary waste disposal. [Amendment No. 1]
21

22 (2) The Certificate Holder shall comply with state laws and rules applicable to Water
23 Pollution Control Facilities Permits that are adopted in the future to the extent that such
24 compliance is required under the respective statutes and rules.
25

26 **F. CONDITIONS REQUIRED OR RECOMMENDED BY COUNCIL RULES**

27 **F.1. MANDATORY CONDITIONS IN SITE CERTIFICATES**
28

29 **Amendment of Site Certificate**

30 (1) The Council shall not change the conditions of the Site Certificate except in accordance
31 with the applicable provisions of OAR 345, Division 27, in effect on the date of the
32 Council action.
33

34 **Legal Description**

35 (2) Before beginning construction of Phase 1 of the energy facility, the Certificate Holder
36 shall submit to the Office a legal description of the site, except as provided in OAR 345-
37 027-0023(6). [Amendment No. 1]
38

39 **General Requirements**

40 (3) The Certificate Holder shall design, construct, operate, and retire the facility:

41
42 (a) Substantially as described in the Site Certificate;
43

- 1 (b) In compliance with the requirements of ORS Chapter 469, applicable Council
2 rules, and applicable state and local laws, rules and ordinances in effect at the
3 time the Council issues the Site Certificate; and,
4
5 (c) In compliance with all applicable permit requirements of other state agencies.
6

7 **Construction Rights on Site**

8 (4) Except as necessary for the initial survey or as otherwise allowed for transmission lines
9 or pipelines in this condition, the Certificate Holder shall not begin construction, as
10 defined in OAR 345-001-0010, or create a clearing on any part of the site until the
11 Certificate Holder has construction rights on all parts of the site. For the purpose of this
12 condition, "construction rights" means the legal right to engage in construction activities.
13 For transmission lines or pipelines, if the Certificate Holder does not have construction
14 rights on all parts of the site, the Certificate Holder may nevertheless begin construction
15 or create a clearing on a part of the site if:

- 16
17 (a) The Certificate Holder has construction rights on that part of the site; and,
18
19 (b) The Certificate Holder would construct and operate part of the facility on that part
20 of the site even if a change in the planned route of the transmission line or
21 pipeline occurs during the Certificate Holder's negotiations to acquire
22 construction rights on another part of the site.
23

24 **Beginning and Completing Construction.**

25 (5) The Certificate Holder shall begin construction of the energy facility by November 8,
26 2004. Beginning construction of the Port Westward to BPA Allston Substation
27 Transmission Line shall not satisfy this requirement.
28

- 29 (a) The Certificate Holder shall report promptly to the Office the date that it began
30 construction of the facility, as defined in OAR 345-001-0010. In reporting the
31 beginning of construction, the Certificate Holder shall briefly describe all work on
32 the site performed before beginning construction, including work performed
33 before the Council issued the Site Certificate and work performed to construct the
34 Port Westward to BPA Allston Substation Transmission Line, and shall state the
35 cost of that work, pursuant to OAR 345-026-0048. If the Certificate Holder
36 constructs the energy facility in phases, the Certificate Holder shall report the
37 beginning of construction of each phase. [Amendment No. 1]
38
39 (b) If the Certificate Holder begins construction of the Port Westward to BPA Allston
40 Substation Transmission Line, as defined in OAR 345-001-0010, prior to
41 beginning construction of the energy facility, it shall promptly report to the Office
42 the date it began construction of the transmission line.
43

44 (6) The Certificate Holder shall complete construction of the facility by May 8, 2007. The
45 completion of construction date is the day by which (1) the facility is substantially

1 complete as defined by the Certificate Holder's construction contract documents;
2 (2) acceptance testing is satisfactorily completed; and, (3) the energy facility is ready to
3 commence continuous operation consistent with the Site Certificate. Completion of
4 construction of the Port Westward to BPA Allston Substation Transmission Line
5 separately shall not satisfy this requirement.
6

7 (a) The Certificate Holder shall report promptly to the Office the date it completed
8 construction of the facility. If the Certificate Holder constructs the energy facility
9 in phases, the Certificate Holder shall report the date of completion of each phase.
10 [Amendment No. 1]
11

12 (b) If the Certificate Holder completes construction of the Port Westward to BPA
13 Allston Substation Transmission Line separately before completing construction
14 of the facility, it shall promptly report that date to the Office.
15

16 (c) Separate completion of construction of Port Westward to BPA Allston Substation
17 Transmission Line shall be the date that PGE makes it available to the
18 Summit/Westward Project to transmit energy.
19

20 **F.2 OTHER CONDITIONS BY RULE**

21 **Incident Reports**

22 (1) With respect to the related or supporting natural gas pipeline, the Certificate Holder shall
23 submit to the Office copies of all incident reports required under 49 CFR §192.709 that
24 involve the pipeline.
25
26

27 **Rights-of-Way**

28 (2) Before beginning operation of the energy facility, the Certificate Holder shall submit to
29 the Office a legal description of the permanent right-of-way where the Certificate Holder
30 has built a pipeline or transmission line within an approved corridor. The site of the
31 pipeline or transmission line subject to the Site Certificate is the area within the
32 permanent right-of-way. However, if the Certificate Holder completes construction of
33 the Port Westward to BPA Allston Substation Transmission Line before beginning
34 construction of the energy facility, the Certificate Holder shall submit to the Office a
35 legal description of the permanent right-of-way for that segment of that transmission line,
36 notwithstanding OAR 345-027-0023(6).
37

38 **Monitoring Programs**

39 (3) If the Certificate Holder becomes aware of a significant environmental change or impact
40 attributable to the facility, the Certificate Holder shall, as soon as possible, submit a
41 written report to the Office describing the impact on the facility and its ability to comply
42 with any affected Site Certificate conditions.
43

1 **Compliance Plans**

- 2 (4) Before beginning construction of the facility, the Certificate Holder shall implement a
3 plan that verifies compliance with all Site Certificate terms and conditions and applicable
4 statutes and rules. The Certificate Holder shall submit a copy of the plan to the Office.
5 The Certificate Holder shall document the compliance plan and maintain it for inspection
6 by the Office or the Council. However, if the Certificate Holder begins construction of
7 the Port Westward to BPA Allston Substation Transmission Line before beginning
8 construction of the energy facility, the applicable compliance plan shall relate to that
9 phase of construction.

10
11 **Reporting**

- 12 (5) Within six months after beginning any construction, and every six months thereafter
13 during construction of the energy facility and related or supporting facilities, the
14 Certificate Holder shall submit a semi-annual construction progress report to the Council.
15 In each construction progress report, the Certificate Holder shall describe any significant
16 changes to major milestones for construction. When the reporting date coincides, the
17 Certificate Holder may include the construction progress report within the annual report
18 described in Condition F.2(6).
19
20 (6) The Certificate Holder shall, within 120 days after the end of each calendar year after
21 beginning construction, submit an annual report to the Council that addresses the subjects
22 listed in OAR 345-026-0080(2). The Council secretary and the Certificate Holder may,
23 by mutual agreement, change the reporting date.
24
25 (7) To the extent that information required by OAR 345-026-0080(2) is contained in reports
26 the Certificate Holder submits to other state, federal or local agencies, the Certificate
27 Holder may submit excerpts from such other reports. The Council reserves the right to
28 request full copies of such excerpted reports.
29

30 **Schedule Modification**

- 31 (8) The Certificate Holder shall promptly notify the Office of any changes in major
32 milestones for construction, decommissioning, operation, or retirement schedules. Major
33 milestones are those identified by the Certificate Holder in its construction, retirement or
34 decommissioning plans.
35

36 **Correspondence with Other State or Federal Agencies**

- 37 (9) The Certificate Holder and the Office shall exchange copies of all correspondence or
38 summaries of correspondence related to compliance with statutes, rules and local
39 ordinances on which the Council determined compliance, except for material withheld
40 from public disclosure under state or federal law or under Council rules. The Certificate
41 Holder may submit abstracts of reports in place of full reports; however, the Certificate
42 Holder shall provide full copies of abstracted reports and any summarized
43 correspondence at the request of the Office.
44

1 **Notification of Incidents**

2 (10) The Certificate Holder shall notify the Office within 72 hours of any occurrence
3 involving the facility if:

- 4
- 5 (a) There is an attempt by anyone to interfere with its safe operation;
- 6
- 7 (b) A natural event such as an earthquake, flood, tsunami or tornado, or a human-
8 caused event such as a fire or explosion affects or threatens to affect the public
9 health and safety or the environment; or,
- 10
- 11 (c) There is any fatal injury at the facility.
- 12

13

14 **G. GENERAL CONDITIONS**

- 15 (1) The general arrangement of the Port Westward Generating Project shall be substantially
16 as shown in the ASC.
- 17
- 18 (2) The Certificate Holder shall ensure that related or supporting facilities are constructed in
19 the corridors described in this Order and as shown in ASC and in the manner described in
20 this Order and the ASC.
- 21
- 22 (3) During construction and operation of the energy facility, the Certificate Holder shall
23 house the combustion turbine in an enclosure that provides thermal insulation, acoustical
24 attenuation, and fire extinguishing media containment and that would allow access for
25 routine inspection and maintenance.

26

27 **Successors and Assigns**

- 28 (4) Before any transfer of ownership of the facility or ownership of the Certificate Holder,
29 the Certificate Holder shall inform the Office of the proposed new owners. The
30 requirements OAR 345-027-0100 shall apply to any transfer of ownership that requires a
31 transfer of the Site Certificate.
- 32

33 **Severability and Construction**

- 34 (5) If any provision of this Site Certificate is declared by a court to be illegal or in conflict
35 with any law, the validity of the remaining terms and conditions shall not be affected, and
36 the rights and obligations of the parties shall be construed and enforced as if the Site
37 Certificate did not contain the particular provision held to be invalid. In the event of a
38 conflict between the conditions contained in the Site Certificate and the Council's Order,
39 the conditions contained in this Site Certificate shall control.
- 40

41 **Governing Law and Forum**

- 42 (6) This Site Certificate shall be governed by the laws of the State of Oregon.
- 43
- 44 (7) Any litigation or arbitration arising out of this agreement shall be conducted in an
45 appropriate forum in Oregon.

1
2 **IN WITNESS WHEREOF**, this Site Certificate has been executed by the State of Oregon,
3 acting by and through its Energy Facility Siting Council, and the Portland General Electric
4 Company.

5
6 ENERGY FACILITY SITING COUNCIL

7
8
9
10 

11 By: Roslyn Elms-Sutherland Date: December 5, 2003
12 Dr. Roslyn Elms-Sutherland, Chair

13
14 PORTLAND GENERAL ELECTRIC COMPANY

15
16
17
18
19 By: Ron W Johnson Date:  12-16-03
20 Ron W Johnson, vice president of Power Supply Engineering and Strategy

21
22 **ATTACHMENT A**

23 MEMORANDUM OF UNDERSTANDING: MONETARY PATH PAYMENT REQUIREMENT

24
25 **ATTACHMENT B**

26 WATER POLLUTION CONTROL FACILITIES PERMIT (B.1) AND ANALYSIS (B.2)

27
28 **ATTACHMENT C**

29 REMOVAL/FILL PERMIT

ATTACHMENT A

MEMORANDUM OF UNDERSTANDING: MONETARY PATH PAYMENT REQUIREMENT

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46
- 1.1 The Project Owner has used the monetary path payment requirement calculations described in Section D.15 of the Site Certificate to calculate the Initial Base-Load Monetary Path Payment amount and has submitted them to the Oregon Office of Energy (the "Office") for verification. The Trust acknowledges that the calculation of the Initial Base-Load Monetary Path Payment in fourth quarter, 2002 dollars presented in Appendix A is correct and consistent with the Site Certificate.
 - 1.2 The Project Owner has used the monetary path payment requirement calculations described in Section D.15 of the Site Certificate to calculate the Initial Power Augmentation Monetary Path Payment amount and has submitted them to the Office for verification. The Trust acknowledges that the calculation of the Initial Power Augmentation Monetary Path Payment in fourth quarter, 2002 dollars presented in Appendix A is correct and consistent with the Site Certificate.
 - 1.3 The Site Certificate requires that the Selection and Contracting Funds portion of both the Initial Base-Load Monetary Path Payment and the Initial Power Augmentation Monetary Path Payment be adjusted for inflation to the date of disbursement to The Trust using the U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight, published in the then current "Oregon Economic and Revenue Forecast" (the "Index"). The Project Owner shall pay to The Trust the Inflation-Adjusted Selection and Contracting Funds in the amount of \$_____ contemporaneously with execution of this Agreement. The Trust acknowledges that the calculations of the Inflation-Adjusted Selection and Contracting Funds presented in Appendix A are correct and consistent with the Site Certificate.
 - 1.4 Based on the verified calculations of the Initial Base-Load Monetary Path Payment and the Initial Power Augmentation Monetary Path Payment set forth in Appendix A, the Project Owner shall pay to the Trust \$_____ in Offset Funds in fourth quarter, 2002 dollars pursuant to Section 1.6 below. The Site Certificate requires that the Offset Funds portion of both the Initial Base-Load Monetary Path Payment and the Initial Power Augmentation Monetary Path Payment be adjusted for inflation from the fourth quarter, 2002, to the date of disbursement to The Trust using the Index.
 - 1.5 The Project Owner shall establish a Letter of Credit in the amount of \$_____ in favor of The Trust, in the form attached as Appendix B to this Agreement. The effective date of the Letter of Credit shall be _____, 200_. The Trust shall be entitled to draw the entire amount of the Offset Funds secured by the Letter of Credit. The Project Owner shall pay the costs of establishing and maintaining the Letter of Credit and shall pay any transaction fees assessed by the issuer of the Letter of Credit.
 - 1.6 The Trust shall have the right to draw Offset Funds upon execution of a letter of intent to acquire an offset project. At the sole discretion of The Trust, the amount of Offset Funds drawn may correspond to the entire amount of Offset Funds available. The Trust may request less than the entire amount of the Offset Funds, but in no case

1 shall the cumulative amount of all requests exceed the total Monetary Path Payment
2 Requirement, as adjusted for inflation.
3

4 **2. Year One True-Up Base-Load Monetary Path Payment and Year One True-Up**
5 **Power Augmentation Monetary Path Payment.**
6

7 2.1 The Project Owner shall, within 30 days of filing its Year One Test reports to
8 Council, calculate the Year One True-Up Base-Load Monetary Path Payment, if any,
9 and the Year One True-Up Power Augmentation Monetary Path Payment, if any, as
10 required by Section D.15 of the Site Certificate. The Project Owner shall submit
11 these calculations to the Oregon Office of Energy for verification, as required by
12 Section D.15 of the Site Certificate.
13

14 2.2 Both the Year One True-Up Base-Load Monetary Path Payment and Year One True-
15 Up Power Augmentation Monetary Path Payment, if any, shall be adjusted for 2002
16 dollars from the calendar quarter of the Site Certificate approval to the Disbursement
17 Date using the Index.
18

19 2.3 If any Year One True-Up Base-Load Monetary Path Payment and/or Year One True-
20 Up Power Augmentation Monetary Path Payment is due, the Project Owner shall pay
21 this amount directly to The Trust within 30 days of filing its Year One Test report to
22 the Council.
23

24 2.4 In no case shall the calculations of this Section 2 cause the funding for the Initial
25 Base-Load Monetary Path Payment and the Initial Power Augmentation Monetary
26 Path Payment made available to The Trust by the Letter of Credit to diminish.
27

28 **3. Periodic Five-Year Power Augmentation Monetary Path Payments.**
29

30 3.1 Each five years after beginning commercial operation, the Project Owner shall report
31 the annual average hours of usage of power augmentation to the Office as required by
32 Section D.15 of the Site Certificate.
33

34 3.2 If the Office of Energy determines that there are excess emissions for the five-year
35 report period, the Office will specify the amount of Selection and Contracting Funds
36 and Offset Funds that the Project Owner shall make available to The Trust. Each
37 Periodic Five-Year Power Augmentation Monetary Path Payment, if any, shall be
38 adjusted for inflation from fourth quarter, 2002, to the Disbursement Date using the
39 Index.
40

41 3.3 For any Periodic Five-Year Power Augmentation Monetary Path Payment, the
42 Selection and Contracting Funds shall equal 20 percent of the value of any Offset
43 Funds up to the first \$250,000 (in 2002 dollars) and 4.286 percent of the value of any
44 Offset Funds in excess of \$250,000 (in 2002 dollars).
45

1 3.4 The Project Owner shall disburse to The Trust the specified amount of any Periodic
2 Five-Year Monetary Path Payment within 30 days of its notification by the Office of
3 the amount that the Project Owner owes.
4

5 **4. Undertaking by The Trust.**
6

7 4.1 The Trust shall use the Initial Base-Load Monetary Path Payment and Initial Power
8 Augmentation Monetary Path Payment, as well as any Year One True-Up Base-Load
9 Monetary Path Payment, Year One True-Up Power Augmentation Monetary Path
10 Payment, and/or Periodic Five-Year Power Augmentation Monetary Path Payments
11 in accordance with OAR 345-024-0710.
12

13 4.2 With respect to the Offset Funds portions of any Initial Base-Load Monetary Path
14 Payment, Initial Power Augmentation Monetary Path Payment, Year One Base-Load
15 Monetary Path Payment, Year One Power Augmentation Monetary Path Payment,
16 and/or Periodic Five-Year Power Augmentation Monetary Path Payments, The Trust
17 shall spend at least 80 percent of the Offset Funds for contracts to implement offsets,
18 and may use up to 20 percent of the Offset Funds for monitoring, evaluation,
19 administration, and enforcement of contracts to implement offsets.
20

21 4.3 The Selection and Contracting Funds portions of any Initial Base-Load Monetary
22 Path Payment, Initial Power Augmentation Monetary Path Payment, Year One Base-
23 Load Monetary Path Payment, Year One Power Augmentation Monetary Path
24 Payment, and/or Periodic Five-Year Power Augmentation Monetary Path Payments
25 shall compensate The Trust for its costs of selecting offsets and contracting for the
26 implementation of offsets and administrative costs related to operating The Trust as a
27 qualified organization.
28

29 4.4 The Trust shall use its best efforts to remain a qualified organization, as defined in
30 OAR 345-001-0010(45), until The Trust has used all funds received from the Project
31 Owner.
32

33 4.5 The Trust shall notify the Project Owner of its intent to draw on the Letter of Credit at
34 least one week before making a draw.
35

36 **5. Limited Obligation of Project Owner.**
37

38 The Trust acknowledges that, pursuant to OAR 345-024-0710(3), that the Project
39 Owner and the Project shall have no obligation with regard to offsets for the Project
40 other than to make available to The Trust the total amount of the monetary path
41 payments.
42

43 **6. Limited Participation by Project Owner in The Trust Decision Making.**
44

45 The Project Owner shall appoint one nonvoting member to the Board of Directors of
46 The Trust for a term lasting until The Trust has completed the contracting for the

1 offset funds provided by the Project Owner. The Project Owner shall have no
2 approval rights over The Trust's offset contracts, disbursement of Offset Funds, or
3 other day-to-day operations of The Trust.
4

5 **7. Project Owner Agreement to Indemnify and Hold The Trust Harmless.**
6

7 The Project Owner agrees to defend, hold harmless and indemnify The Trust from
8 and against any and all claims, costs, liabilities, and expenses of any nature
9 whatsoever, including reasonable attorneys' fees, resulting from or arising out of any
10 failure by the Project Owner to make any payments required by this Agreement, or to
11 establish the Letter of Credit described in Section 1.5 in a timely manner;
12 PROVIDED, that the maximum amount of the Project Owner's liability to The Trust
13 for claims, costs, liabilities and expenses, including attorneys' fees, arising out of the
14 failure to make a payment or establish the Letter of Credit required by this Agreement
15 in a timely manner shall not exceed twice the differential between the amount payable
16 to The Trust on a particular date and the amount actually paid or made available to
17 The Trust on or before that date. FURTHER PROVIDED, The Trust must make
18 reasonable efforts to mitigate any losses, liabilities or expenses for which it seeks
19 indemnification from the Project Owner.
20

21 **8. General Provisions.**
22

23 8.1 Governing Law: This Agreement shall be governed by and construed in accordance
24 with the laws of the State of Oregon. Any ambiguity that may arise under this
25 Agreement shall be given a fair and reasonable construction in accordance with the
26 intention of the parties and without regard to which party caused or is deemed to have
27 caused such ambiguity to exist.
28

29 8.2 Amendments and Waivers: This Agreement may not be modified, supplemented,
30 altered or amended, nor any provision hereof or rights hereunder be waived, except
31 by an instrument in writing designated as an amendment of or waiver under this
32 Agreement and signed by both parties. The waiver of any particular breach or default
33 hereunder shall not constitute a waiver of any other breach or default. Failure or
34 delay by any party to enforce any provision of this Agreement shall not in any way be
35 construed as a waiver of such provision, nor shall it prevent such party from
36 thereafter enforcing each and every provision of this Agreement.
37

38 8.3 Entire Agreement: This Agreement constitutes the entire agreement between the
39 parties hereto as to the matters set forth herein, and all prior proposals, commitments,
40 understandings and agreements, whether oral or in writing, as to such matters are
41 superseded by this Agreement.
42

43 8.4 Assignment: The rights of the Project Owner under this Agreement may be assumed
44 by any entity that acquires an ownership interest in the Project. Upon such
45 assumption, such entity shall be deemed to be a party to this Agreement. The Trust
46 may not assign this Agreement without the prior consent of the Project Owner and

1 Council; provided that, if the proposed assignee is a “qualified organization” as
2 defined in OAR 345-001-0010(45), the Project Owner shall not unreasonably
3 withhold such consent.
4

5 8.5 Third-Party Beneficiaries: Nothing in this Agreement, whether express or implied, is
6 intended to confer any rights or remedies on any persons other than the parties hereto
7 and their respective authorized successors and permitted assigns.
8

9 IN WITNESS WHEREOF, the parties have caused this Memorandum of Understanding to be
10 executed by their respective duly authorized representatives, as of the day and year first above
11 written.
12

13 PORTLAND GENERAL ELECTRIC COMPANY

THE CLIMATE TRUST

14
15
16
17 By: _____

By: _____

18
19 Name: _____

Name: _____

20
21 Title: _____

Title: _____

22
23 Date: _____

Date: _____

24
25
26 APPENDIX A: CALCULATION OF INITIAL BASE-LOAD AND POWER AUGMENTATION MONETARY
27 PATH PAYMENT REQUIREMENT [NOT INCLUDED IN SITE CERTIFICATE]
28

29 APPENDIX B: FORM OF LETTER OF CREDIT

30 /

31 /

32 /

1 If any request for payment hereunder is presented in compliance with the terms of this
2 Letter of Credit to us at such address by ___ (local time) on any Business Day, payment will be
3 made at or before _____ (local time) on _____, and if such request is so presented to us _____
4 (local time) on any Business Day, payment will be made at or before _____.
5

6 If a demand for payment made hereunder does not, in any instance, conform to the terms
7 and conditions of this Letter of Credit, we shall give you prompt notice that your demand for
8 payment was not effected in accordance with the terms and conditions of this Letter of Credit,
9 stating the reasons therefore and that we will, upon your instructions, hold any documents at
10 your disposal or return the same to you. Upon being notified that the demand for payment was
11 not effected in conformity with this Letter of Credit, you may attempt to correct any such
12 nonconforming demand to the extent you are able to do so; *provided, however*, that any draft or
13 document presented to correct such nonconforming demand must be presented on or before the
14 Termination Date.
15

16 Communications with respect to this Letter of Credit shall be in writing and shall be
17 addressed to us at _____, specifically referring therein to this Letter of Credit by number.
18

19 As used herein, a "Business Day" shall mean any day other than Saturday or Sunday or a
20 day on which banking institutions in the City of _____ are authorized or required by law to
21 close.
22

23 Presentation of any certificate hereunder shall be deemed to be authentic if signed by a
24 person purporting to be your Executive Director.
25

26 This Letter of Credit and the attached Annex A set forth in full our undertaking, and such
27 undertaking shall not in any way be modified, amended, amplified, or limited by reference to any
28 document, instrument or agreement referred to in this Letter of Credit, except only the
29 certificates referred to herein, and any such reference shall not be deemed to incorporate herein
30 by reference any document, instrument or agreement except for such certificates.
31

32 _____ hereby engages solely with The Climate Trust that drafts drawn hereunder
33 and in compliance with the terms of this Letter of Credit will be duly honored upon presentation
34 to us by our prompt payment to you of the amount specified in the certificate accompanying such
35 draft.
36

37 This Letter of Credit and the attached Annex A shall be subject to the provisions (to the
38 extent that such provisions are not inconsistent with this Letter of Credit) of the Uniform
39 Customs and Practices for Documentary Credits, 1993 Revision, International Chamber of
40 Commerce Publication No. 500. To the extent that the provisions of this Letter of Credit are not
41 covered by such Uniform Customs and Practices, this Letter of Credit shall be governed by and
42 enforced and construed in accordance with the laws of the State of Oregon.
43

[LETTERHEAD OF THE CLIMATE TRUST]

DRAW CERTIFICATE

IRREVOCABLE LETTER OF CREDIT NO.

The undersigned, the Executive Director of The Climate Trust (the "Beneficiary") hereby certifies to _____ (the "Issuing Bank") with reference to the Irrevocable Letter of Credit No. _____ (the "Letter of Credit") issued by the Issuing Bank in favor of the Beneficiary (any capitalized term used herein and not otherwise defined shall have the respective meaning set forth in the Letter of Credit) that:

- 1. The Beneficiary is making a drawing under the Letter of Credit pursuant to the Memorandum of Understanding dated _____, 200__, between The Climate Trust and Portland General Electric Company (the "MOU") in the amount of \$_____ (the "Drawing Amount");
- 2. The Drawing Amount hereunder does not exceed the Stated Amount reduced by all previous drawings under the Letter of Credit; and
- 3. The Drawing Amount is not more than the amount that the Climate Trust is entitled to draw at this time under the terms of the MOU.

The Beneficiary hereby irrevocably authorizes and directs the Issuing Bank to pay the Drawing Amount in immediately available funds to The Climate Trust, Attention: Executive Director, by sending such payment by wire transfer to:

IN WITNESS WHEREOF, the Beneficiary has executed and delivered this certificate as of the ____ day of _____, ____.

THE CLIMATE TRUST, as Beneficiary

By: _____
Name:
Executive Director

ATTACHMENT B

**WATER POLLUTION CONTROL FACILITIES
PERMIT (B.1)**

AND

ANALYSIS (B.2)

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ATTACHMENT B.1, SITE CERTIFICATE, WGP

Expiration Date: 31-Mar-2012
Permit Number: DRAFT
File Number: 111764
Page 1 of 8 Pages

WATER POLLUTION CONTROL FACILITIES PERMIT

Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue, Suite 400, Portland, OR 97201
Telephone: (503) 229-5263

Issued pursuant to ORS 468B.050

ISSUED TO:

Portland General Electric
121 SW Salmon Street
Portland, Oregon 97204

SOURCES COVERED BY THIS PERMIT:

Table with 3 columns: Type of Waste, System, Method of Treatment/Disposal. Row 1: Domestic Sewage, 001, Bottomless sand filter

SYSTEM TYPE AND LOCATION:

On-Site Sewage Treatment and Disposal

Port Westward Generating Plant
80997 Kallunki Road
City/Town: Clatskanie

Located in: Sect. 15&22, T8N,R4W
Latitude: 46.1800
Longitude: -123.1717

RIVER BASIN INFORMATION:

Hydro Code: 10=-COLU 51.3 N

COUNTY:
Columbia

Issued in response to Application No. 986243.

This permit is issued based on the Final Order in the Matter of the Application for a Site Certificate for the Port Westward Generating Project in lieu of a Land Use Compatibility Statement.

Robert P. Baumgartner, Water Quality Manager
Northwest Region

Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify, or operate a wastewater collection, treatment, control and disposal system in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

Table with 2 columns: Activity Name, Page. Includes Schedule A (2), Schedule B (3), Schedule C (-), Schedule D (4), Schedule E (-), Schedule F (5-8)

Discharge of untreated or partially treated sewage or septic tank effluent directly or indirectly onto the ground surface or into surface waters constitutes a public health hazard and is prohibited. This permit does not relieve the permittee from responsibility for compliance with any other applicable federal, state, or local law, rule or standard.

SCHEDULE A

Waste Disposal Limitations

1. The permittee is authorized to operate and maintain a domestic sewage treatment and disposal facility consisting of a bottomless sand filter unit with final disposal to the soil beneath the filter and in compliance with the following conditions:

a) The average daily sewage flow to the SAND FILTER should be approximately fifty percent (50%) of the maximum daily or peak flow to the treatment system. The maximum peak daily flow shall not exceed the following unless otherwise approved by the Department:

| System | Maximum Daily Flow |
|--------|--------------------|
| 1 | 1200 gpd |

b) The **influent** to the treatment unit shall not exceed the following maximum concentrations:

| Parameter | Limitation |
|-----------------|------------|
| BOD5 | 300 mg/l |
| Greases and Oil | 25 mg/l |
| TSS | 150 mg/l |
| TKN | 150 mg/l |

c) The **effluent** from the treatment unit shall not exceed the following maximum concentrations:

| Parameter | Limitation |
|-----------|------------|
| BOD5 | 20 mg/l |
| TSS | 20 mg/l |

d) No discharge to surface waters is permitted. All wastewater shall be distributed into the soil beneath the filter so as to prevent:

- 1) Surfacing of wastewater on the ground surface, surface runoff or subsurface drainage through drainage tile.
- 2) The creation of odors, fly and mosquito breeding and other nuisance conditions.
- 3) The overloading of land with nutrients or organics.
- 4) Impairment of existing or potential beneficial uses of groundwater.

2. No cooling water, air conditioner water, water softener brine, groundwater, oil, hazardous materials, roof drainage, storm water runoff, or other aqueous or non-aqueous substances which are, in the judgment of the Department, detrimental to the performance of the system or to groundwater, shall be discharged into the sewage treatment system, unless specifically approved in writing by the Department.

3. No Activities shall be conducted that could cause an adverse impact on existing or potential beneficial uses of groundwater.

SCHEDULE B

Minimum Monitoring and Reporting Requirements

1. **System Monitoring Requirements**

The permittee shall monitor the operation and efficiency of all treatment and disposal facilities. Sampling and measurements taken as required herein shall be representative of the nature of the wastewater, and shall be taken at peak usage during operation of the system. Unless otherwise agreed to in writing by the Department of Environmental Quality, data collected, and submitted shall include but not necessarily be limited to the following parameters and minimum frequencies:

a. **Influent to the Treatment Unit**

| Item or Parameter | Minimum Frequency | Type of Sample |
|------------------------|-------------------|--|
| Sewage Flow, GPD | Monthly Average | Measurement or calculation based on meter readings |
| Flow Meter Calibration | Annually | Verification |

b. **Effluent from the Sand filter;**

| Item or Parameter | Minimum Frequency | Type of Sample |
|--------------------------------------|-------------------|----------------|
| BOD ₅ | Semi-annually * | Grab |
| TSS | Semi-annually * | Grab |
| NH ₃ -N | Annually * | Grab |
| NO ₃ + NO ₂ -N | Annually * | Grab |
| TKN | Annually * | Grab |

*Upon receipt of a five year contract in place with a maintenance entity acceptable to the Department, the Department will reduce sampling frequency during the first five years of the permit to one time, to be done during the fifth year of the permit. The Department may allow some reduction of the sampling following the fifth year of the permit if the second five year contract is in place after the end of the first five year contract.

c. **Operations and Maintenance Activities**

The permittee shall record in writing all observations of operation and maintenance activities as required in the Department approved Operation and Maintenance Plan on a monthly basis.

d. **Solids Management**

The permittee shall maintain a record of the pumping dates and quantity in gallons, of solids/wastewater pumped, and what licensed sewage disposal service company pumped the solids/wastewater, as well as the final disposal location and transfer locale (if applicable).

2. **Reporting Procedures**

Monitoring, maintenance practices, solids handling, and results shall be reported on Department approved forms. The reporting period is the calendar year. Reports must be submitted to the DEQ office listed on the face page of this permit by **January 15 following the reporting period.**

SCHEDULE D

Special Conditions

1. The permittee shall maintain on file a complete Operation and Maintenance (O&M) Plan approved by the Department. The permittee shall operate, manage and implement preventative maintenance practices or corrections at the frequencies required in the Department approved O&M Plan. Any changes to the plan must be approved by the Department.
2. In the event that a concentration limit, as specified in Schedule A, to the soil beneath the filter is exceeded, the permittee shall within fourteen (14) working days of receipt of the analytical results:
 - a) Report the results to the Department;
 - b) Resample to verify the results; and
 - c) In the event that the resampling confirms a concentration limit violation, within thirty (30) days of confirmation, the permittee shall submit to the Department a corrective action plan to reduce the waste strength so that the concentration limits are not violated. Upon Department approval, the plan shall be implemented by the permittee.
3. The permittee shall contract with a licensed sewage disposal service as defined in Oregon Administrative Rule 340-71-100 for management of all septage/sludge.
4. All bench sheets, laboratory analysis sheets, and other records to support the data reported on the Discharge Monitoring Report (DMR) shall be prepared in ink and shall be kept on file for a period of at least 3 years from the date of the sample, measurement, report or application. Pencil entries or liquid paper corrections are prohibited and shall be considered Class I violations of the permit. Changes to any supporting records that may be required to correct the original data may be made by lining through the original data. The date of the change and the initials of the individual making the change shall be recorded in ink adjacent to the change.
5. The sand filter area including replacement area shall not be subject to activities that would, in the opinion of the Department, adversely affect the soil or the functioning of the system. This includes, but is not limited to, vehicular or animal traffic, filling or cutting, covering the area with asphalt or concrete, or subjecting the area to excessive saturation.
6. The permittee shall not be required to perform a formal hydrogeologic characterization or preliminary groundwater monitoring during the term of this permit provided that the facilities are operated in accordance with the permit conditions, and there are no apparent adverse groundwater quality impacts (complaints or other indirect evidence) resulting from the facility's operation. If warranted, the Department may evaluate the need for or require a full assessment of the facility's impact on groundwater quality and if necessary may reopen this permit to include groundwater monitoring parameters.
7. An adequate contingency plan for prevention and handling of spills and unplanned discharges shall be in force at all times. The permittee shall immediately notify the DEQ office listed on the face page of this permit and the local County Health Department of any occurrence of surfacing sewage. If a spill does occur that reaches or threatens to reach public waters, the permittee shall immediately notify Oregon Emergency Response (OER) at 1-800-452-0311.

SCHEDULE F

General Conditions

SECTION A. - STANDARD CONDITIONS

1. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws, or regulations.

2. Liability

The Department of Environmental Quality, its officers, agents, or employees shall not sustain any liability on account of the issuance of this permit or on account of the construction or maintenance of facilities because of this permit.

3. Permit Actions

After notice by the Department, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including but not limited to the following:

- a. Violation of any term or condition of this permit, any applicable rule or statute, or any order of the Commission;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.

4. Transfer of Permit

This permit shall not be transferred to a third party without prior written approval from the Department. Such approval may be granted by the Department where the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of this permit and the rules of the Commission. A transfer application and filing fee must be submitted to the Department.

5. Permit Fees

The permittee shall pay the fees required to be filed with this permit application and to be paid annually for permit compliance determination as outlined in the Oregon Administrative Rules.

SECTION B. - OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times maintain in good working order and properly operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

2. Standard Operation and Maintenance

All waste collection, control, treatment, and disposal facilities shall be operated in a manner consistent with the following:

- a. At all times, all facilities shall be operated as efficiently as possible and in a manner which will prevent discharges, health hazards, and nuisance conditions.
- b. All screenings, grit, and sludge shall be disposed of in a manner approved by the Department such as to prevent any pollutant from such materials from reaching any waters of the state, creating a public health hazard, or causing a nuisance condition.
- c. Bypassing of untreated waste is generally prohibited. No bypassing shall occur without prior written permission from the Department except where unavoidable to prevent loss of life, personal injury, or severe property damage.

3. Noncompliance and Notification Procedures

In the event the permittee is unable to comply with all the conditions of this permit because of surfacing sewage, a breakdown of equipment or facilities, an accident caused by human error or negligence, or any other cause such as an act of nature, the permittee shall:

- a. Immediately take action to stop, contain, and clean up the unauthorized discharges and correct the problem.
- b. Immediately notify the Department's Regional office, so that an investigation can be made to evaluate the impact and the corrective actions taken and determine additional action that must be taken.
- c. Within 5 days of the time the permittee becomes aware of the circumstances, the permittee shall submit to the Department a detailed written report describing the breakdown, the actual quantity and quality of resulting waste discharges, corrective action taken, steps taken to prevent a recurrence, and any other pertinent information.

Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit or the resulting liability for failure to comply.

4. Wastewater System Personnel

The permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance, and monitoring requirements to assure continuous compliance with the conditions of this permit.

SECTION C. - MONITORING AND RECORDS

1. Inspection and Entry

The permittee shall, at all reasonable times, allow authorized representatives of the Department of Environmental Quality to:

- a. Enter upon the permittee's premises where a waste source or disposal system is located or where any records are required to be kept under the terms and conditions of this permit;
- b. Have access to and copy any records required to be kept under the terms and conditions of this permit;
- c. Inspect any treatment or disposal system, practices, operations, monitoring equipment, or monitoring method regulated or required by this permit; or

d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

2. Averaging of Measurements

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean.

3. Retention of Records

The permittee shall retain records of all monitoring and maintenance information, including all calibrations, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. The Director may extend this period at any time.

SECTION D. - REPORTING REQUIREMENTS

1. Plan Submittal

Pursuant to Oregon Revised Statute 468B.055, unless specifically exempted by rule, no construction, installation or modification of disposal systems, treatment works, or sewerage systems shall be commenced until plans and specifications are submitted to and approved in writing by the Department. All construction, installation or modification shall be in strict conformance with the Department's written approval of the plans.

2. Change in Discharge

Whenever a facility expansion, production increase, or process modification is anticipated which will result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, a new application must be submitted together with the necessary reports, plans, and specifications for the proposed changes. No change shall be made until plans have been approved and a new permit or permit modification has been issued.

3. Signatory Requirements

All applications, reports or information submitted to the Department shall be signed and certified by the official applicant of record (owner) or authorized designee.

SECTION E. DEFINITIONS

1. BOD₅ means five-day biochemical oxygen demand.
2. TSS means total suspended solids.
3. FC means fecal coliform bacteria.
4. NH₃-N means Ammonia Nitrogen.
5. NO₃-N means Nitrate Nitrogen.
6. NO₂-N means Nitrite Nitrogen.
7. TKN means Total Kjeldahl Nitrogen.
8. Cl means Chloride.
9. TN means Total Nitrogen.
10. mg/L means milligrams per liter.
11. µg/L means micrograms per liter.
12. kg means kilograms.
13. GPD means gallons per day.
14. MGD means million gallons per day.
15. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
16. Total residual chlorine means combined chlorine forms plus free residual chlorine.
17. Grab sample means an individual discrete sample collected over a period of time not to exceed 15 minutes.
18. Composite sample means a combination of samples collected, generally at equal intervals over a 24-hour period, and apportioned according to the volume of flow at the time of sampling.
19. Week means a calendar week of Sunday through Saturday.
20. Month means a calendar month.
21. Quarter means January through March, April through June, July through September, or October through December.

ATTACHMENT B.2, SITE CERTIFICATE , PWGP



OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
LARGE ONSITE WPCF PERMIT EVALUATION

May 1, 2002

| | | | |
|------------------|---|----------------------------------|----------------------------|
| Permittee: | Portland General Electric | | Manager Approval Initials: |
| | 121 SW Salmon Street Portland, Oregon 97204 File Number: 111764 | | |
| Source Contact: | Arya Behbehani-Divers | Telephone Number: (503) 464-8141 | |
| Source Location: | 80997 Kallunki Road, Clatskanie | | |
| County: | Columbia | | |
| Permit Writer: | Anne Cox | NWR Office | |
| Proposed Action: | New WPCF-OS | Application No.: 986243 | Date Received: 3/29/02 |

Introduction

Under Oregon Administrative Rule Chapter 340 Division 71 Section 130 (15) [OAR 340-71-130(15)], any person proposing a sand filter system to serve a commercial facility shall obtain a WPCF permit from the Department of Environmental Quality.

This area was originally evaluated for on-site sewage disposal by Columbia County onsite staff. On February 8, 2002, the Department confirmed the evaluation of this site in relation to the proposed PGE facility.

Facility Description

| | |
|-------------------------------|-----------------------|
| Total Design Flow of Facility | 1,200 Gallons per day |
| Number of Systems | One |

System #1

| | |
|-------------------|--|
| Date Constructed | To be constructed in 2002 or later |
| Design Capacity | 1,200 gpd |
| Facilities Served | Sanitary facilities for the Port Westward Generating plant, bathrooms & sinks. |
| Type of Treatment | Bottomless Sand filter |
| Type of Soils | Sand |

Comments: Latitude and Longitude for the test pit area is 46 10 41, -123 10 16.

Groundwater

As part of this permit evaluation, a groundwater prioritization screening was done. The results of this screening is as follows:

| | |
|---|-------|
| For new and existing drainfield systems (confirm all statements given as true or false: | |
| 1. Based on the depth to the water table <u>underline the applicable statement</u> and confirm it as either true or false: A. <u>Depth to water table is less than 100 feet: System design flow is less than 5,000 gpd.</u> B. Depth to water table is between 100 and 300 feet; system design flow is less than 10,000 gpd. C. Depth to water table is greater than 300 feet; system design flow is less than 15,000 gpd. | True |
| 2. System is not located in Groundwater Management Area where an identified contaminant of concern may be associated with domestic wastewater. | True |
| 3. Drainfield is not located within: 1000 feet of an existing public or private drinking water supply well or a designated Wellhead Protection Area, And, all land within 1000 feet of the system is zoned such that no drinking water wells are likely to be installed in the future. | False |
| 4. No industrial sources discharge to the system | True |
| 5. There are no exceptional situations under which the system may require further groundwater review to determine the likelihood of an adverse impact. | True |

If all answers are true, then no further information is needed.

If any answers are false, has additional information been gathered to satisfy the permit writer and groundwater reviewer that the facility actually has a low potential to adversely impact groundwater? **Yes** If yes, provide details.

All domestic wells are over the 100 foot setback required by OAR 340-71. In fact there are no wells within ½ mile of the project. The initial groundwater in this area is essentially the Columbia River and can be expected to discharge to the river.

The projected sewage flow from this facility is 1,200 gpd, equivalent to 2.6 residential homes located on a parcel of 19 acres. Sand filter effluent is expected to produce 10 mg/l BOD, 10 mg/l TSS, reduce bacteria counts by 98 to 99% and lowers total nitrogen by approximately 50%. The site meets Division 71 Onsite rules criteria for approval of a bottomless sand filter. The proposed flows will be low. The potential to impact the groundwater is negligible.

Compliance History

This is a new permit. There is no compliance history.

PERMIT DISCUSSION

Schedule A – Waste Disposal Limitations

Schedule A contains the following limitations for each system:

- x System Maximum Daily flow
- x Influent maximum concentrations (Sand Filters and RGFs only)
- x Effluent maximum concentrations
- x Prohibition of discharges to surface waters
- x Prohibition of discharge of detrimental substances to system
- x Groundwater restrictions.

Schedule B – Minimum Monitoring and Reporting Requirements

Monitoring parameters and frequencies are based on the Department monitoring matrix. Any modifications are listed as follows:

If the permittee enters into a five year maintenance contract with an acceptable entity, the Department will reduce sampling requirements to one time during that period, at the fifth year of the permit. Further reduction in sampling can be allowed after the fifth year of the permit if the permittee enters into another five year contract.

Schedule D – Special Conditions

Schedule D contains the following special conditions:

- x Operations and Maintenance Requirements
- x Septage/sludge management
- x Maintenance of vegetation in the drainfield area
- x Prohibition of activities that would adversely affect the soil or functioning of the system.
- x Contingency plan requirement
- x Groundwater Requirements

Schedule F – General Conditions

This Schedule contains general conditions that are applicable to all WPCF permits in Oregon.

ATTACHMENT C

REMOVAL/FILL PERMIT

Division of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
☎ 503-378-3805

| | |
|------------------|--------------------------------|
| Permit No.: | <u>25248-FP</u> |
| Permit type: | <u>Fill</u> |
| Waterway: | <u>Columbia River/Wetlands</u> |
| County: | <u>Columbia</u> |
| Expiration Date: | _____ |
| Corps No.: | _____ |

PORTLAND GENERAL ELECTRIC

IS AUTHORIZED IN ACCORDANCE WITH ORS 196.800 TO 196.990 TO PERFORM THE OPERATIONS DESCRIBED IN THE REMOVAL/FILL APPLICATION SUBMITTED AS PART OF THE APPLICATION FOR A SITE CERTIFICATE FOR THE PORT WESTWARD GENERATING PROJECT, FILED APRIL 11, 2002, SUBJECT TO THE SPECIAL CONDITIONS LISTED ON ATTACHMENT A AND TO THE FOLLOWING GENERAL CONDITIONS:

1. This permit does not authorize trespass on the lands of others. The permit holder shall obtain all necessary access permits or rights-of-way before entering lands owned by another.
2. This permit does not authorize any work that is not in compliance with local zoning or other local, state, or federal regulation pertaining to the operations authorized by this permit. The permit holder is responsible for obtaining the necessary approvals and permits before proceeding under this permit.
3. All work done under this permit must comply with Oregon Administrative Rules, Chapter 340; Standards of Quality for Public Waters of Oregon. Specific water quality provisions for this project are set forth on Attachment A.
4. Violations of the terms and conditions of this permit are subject to administrative and/or legal action which may result in revocation of the permit or damages. The permit holder is responsible for the activities of all contractors or other operators involved in work done at the site or under this permit.
5. A copy of the permit shall be available at the work site whenever operations authorized by the permit are being conducted.
6. Employees of the Division of State Lands and all duly authorized representatives of the Director shall be permitted access to the project area at all reasonable times for the purpose of inspecting work performed under this permit.
7. The Division of State Lands issues this permit pursuant to the Site Certificate for the Port Westward Generating Project, issued by the Oregon Energy Facility Siting Council, November 8, 2002.
8. In issuing this permit, the Division of State Lands makes no representation regarding the quality or adequacy of the permitted project design, materials, construction, or maintenance, except to approve the project's design and materials, as set forth in the permit application, as satisfying the resource protection, scenic, safety, recreation, and public access requirements of ORS Chapters 196, 390 and related administrative rules.
9. Permittee shall defend and hold harmless the State of Oregon, and its officers, agents, and employees from any claim, suit, or action for property damage or personal injury or death arising out of the design, material, construction, or maintenance of the permitted improvements.

NOTICE: If removal is from state-owned submerged and submersible land, the applicant must comply with leasing and royalty provisions of ORS 274.530. If the project involves creation of new lands by filling on state-owned submerged or submersible lands, you must comply with ORS 274.905 - 274.940. This permit does not relieve the permittee of an obligation to secure appropriate leases from the Division of State Lands, to conduct activities on state-owned submerged or submersible lands. Failure to comply with these requirements may result in civil or criminal liability. For more information about these requirements, please contact the Division of State Lands, 503-378-3805.

Lori Warner, Manager
Western Region Field Operations
Oregon Division of State Lands

Authorized Signature

Date Issued

ATTACHMENT A to Removal/Fill Permit

Special Conditions for Removal/Fill Permit No. 25248-FP. PLEASE READ AND BECOME FAMILIAR WITH CONDITIONS OF YOUR PERMIT. This project may be site inspected by the Division of State Lands as part of our monitoring program. The Division has the right to stop or modify the project at any time if you are not in compliance with these conditions. A copy of this permit shall be available at the work site whenever authorized operations are being conducted.

1. This permit authorizes the placement of up to 3,000 cubic yards of gravel sand and silt and removal of up to 4,500 cubic yards of silt and clay in T8N, R4W, Sections 15 and 22, Tax Lots 3 and 4 in wetlands and Columbia River, Columbia County for power generation facility, transmission line, and water intake station upgrades, as outlined in the attached permit application, map and drawings, dated April 11, 2002 (Application). Removal-fill activity for wastewater discharge line and river outfall is specifically not authorized by this permit.
2. This permit authorizes removal and fill activities necessary to complete the required compensatory mitigation.
3. **TURBIDITY/EROSION CONTROLS.** The authorized work shall not cause turbidity of affected waters to exceed 10% over natural background turbidity 100 feet downstream of the fill point. For projects proposed in areas with no discernible gradient break (gradient of 2% or less), monitoring shall take place at 4 hour intervals and the turbidity standard may be exceeded for a maximum of one monitoring interval per 24 hour work period provided all practicable control measures have been implemented. This turbidity standard exceedance interval applies only to coastal lowlands and floodplains, valley bottoms and other low-lying and/or relatively flat land.

For projects in all other areas, the turbidity standard can be exceeded for a maximum of 2 hours (limited duration) provided all practicable erosion control measures have been implemented. These projects may also be subject to additional reporting requirements.

Turbidity shall be monitored during active in-water work periods. Monitoring points shall be at an undisturbed site (representative background) 100 feet upstream from the turbidity causing activity (i.e., fill or discharge point), 100 feet downstream from the fill point, and at the point of fill. A turbidimeter is recommended, however, visual gauging is acceptable. Turbidity that is visible over background is considered an exceedance of the standard.

Practicable erosion control measures which shall be implemented, as appropriate, include but are not limited to the following:

- a. Place fill in the water using methods that avoid disturbance to the maximum practicable extent (e.g. placing fill with a machine rather than end-dumping from a truck).
 - b. Prevent all construction materials and debris from entering waterway;
 - c. Use filter bags, sediment fences, sediment traps or catch basins, silt curtains, leave strips or berms, Jersey barriers, sand bags, or other measures sufficient to prevent movement of soil;
 - d. Use impervious materials to cover stockpiles when unattended or during rain event;
 - e. Erosion control measures shall be inspected and maintained daily to ensure their continued effectiveness;
 - f. No heavy machinery in a wetland or other waterway;
 - g. Use a gravel staging area and construction access;
 - h. Fence off planted areas to protect from disturbance and/or erosion; and
 - i. Flag or fence off wetlands adjacent to the construction area.
4. Erosion control measures shall be maintained as necessary to ensure their continued effectiveness, until soils become stabilized. All erosion control structures shall be removed when project is complete and soils are stabilized and vegetated.
 5. Fill and removal activities in the Columbia River shall be conducted between November 1 and February 28, unless otherwise coordinated with ODFW and approved in writing by ODSL.
 6. Petroleum products, chemicals, or other deleterious materials shall not be allowed to enter waters of the state.
 7. No fresh concrete shall be allowed to come into contact with waters of the state unless otherwise coordinated with ODFW and approved in writing by ODSL.
 8. Waste materials and spoils shall be placed in a stable upland location above the top of bank and shall be suitably stabilized to prevent erosion.
 9. If any archaeological resources and/or artifacts are uncovered during excavation, all construction activity shall immediately cease. The State Historic Preservation Office shall be contacted (phone: 503-378-4168).
 10. The Division of State Lands retains the authority to temporarily halt or modify the project within the scope of the site certificate issued by the Energy Facility Siting Council in case of unforeseen damage to natural resources.

11. The permittee is responsible for carrying-out the terms and conditions of this permit unless the permit is transferred to another party using forms provided by the Division.

Compensatory Wetland Mitigation

The following conditions apply to the actions described in the Application, Appendix J-3, Wetland Mitigation Plan, dated May 2002 (Mitigation Plan). The issuance of this permit is contingent upon the successful compensatory wetland mitigation for the loss of 0.41 acres of wetlands resulting from power generating facility development and up to 0.02 acres of wetlands resulting from construction of transmission towers for a total of 0.43 acres impact.

12. On-site compensatory mitigation for the loss of 0.43 acres of palustrine emergent, seasonally saturated (PEMc) and scrub-shrub (PSSc), riverine flow-through (RFT)/depressional wetland, shall consist of 1.5 acres of enhancement to PEMc, PSSc, palustrine forested (PFO), RFT/depressional wetland.
13. Mitigation for temporary impacts (0.03 acres) resulting from water supply line installation shall consist of rehabilitation to original ground contours and re-vegetation with appropriate wetland seed mix upon re-establishment of original contours. Similar rehabilitation shall also be provided for any temporary wetland impacts associated with transmission towers installation (e.g., equipment ruts, tracks). During trenching or excavation, the top layer of soil shall be separated from the rest of the excavated material and put back on top when the trench or pit is back-filled. If the native underlying soils are not used as bedding material, and a coarser, non-native soil or other material is used, preventative measures such as clay or concrete plugs shall be used so that underground hydraulic piping does not occur and de-water the site and adjacent wetlands. Failure to comply with this condition may result in additional compensatory mitigation.
14. Mitigation shall be completed prior to or concurrent with the wetland fill project and otherwise consistent with Mitigation Plan, Section 10, Vegetation Management.
15. The wetland enhancement area shall be graded to the elevations described in Mitigation Plan, Section 10 and Figures J-3.5 and J-3.6.
16. Prior to any site grading, the surveyed boundaries of the wetland mitigation area and the avoided wetlands shall be surrounded by silt fencing at all times during construction of the project. There shall be no heavy equipment in this area except during mitigation construction.

17. An as-built survey shall be provided to the Division of State Lands within 60 days of mitigation site grading.
18. The mitigation site shall be planted in types, numbers and zones described in Mitigation Plan, Plant Schedule (Figure J-3.5). No existing trees shall be removed within the wetland mitigation area. Any significant variation in the plant schedule shall be referred to the Division for approval prior to execution. In the event that Cottonwood does not volunteer in the mitigation area in numbers/density consistent with the reference site by the end of the 3rd year, the planting plan shall be supplemented with cottonwood plantings. Proposed numbers shall be provided to the Division for approval prior to execution.
19. Removal or control of invasive, non-native plant species shall be done by means including preliminary site grading, mowing, herbicide application and/or by-hand removal, as appropriate. Livestock grazing shall not be allowed in the mitigation area.
20. The mitigation site shall be irrigated as necessary to avoid water stress for two years after the completion of planting.
21. Large woody debris shall be placed at the mitigation site locations identified in the Mitigation Plan, Figure J-3.6.

Success Criteria

To be deemed successful, the mitigation areas shall meet the following success criteria:

22. Cover of planted herbaceous material and desirable native wetland recruits (FAC+ or wetter) in designated PEMc areas shall be at least 80% after the 3rd year (as measured by cover in representative plots) and remain at least 80% for the remainder of the monitoring period.
23. Survival of planted trees and shrubs (by species) shall be at least 80% for the duration of the monitoring period (as measured by total stem counts). Should cottonwood not volunteer into the mitigation area in numbers consistent with the reference site by year 3, remedial action shall be taken in consultation with the Division.
24. There shall be no more than 30 percent cover of non-native species at any time during the monitoring period.

25. Mitigation site micro-topography shall meet grading design per Mitigation Plan, Figures J-3.5 and J-3.6 and including large woody debris placement pursuant to Mitigation Plan, Figure J-3.6.
26. The mitigation site shall exhibit characteristics of PFO/PSS wetland (0.9 acres) and PEMc wetland (0.6 acres) consistent with Cowardin definitions for said wetland types by the end of the monitoring period.

Mitigation Monitoring

27. The permittee shall monitor the mitigation site to determine success for a minimum period of five (5) years. The annual monitoring report is due by December 31 of each year and shall include the following information:
 - Permit number, permittee's name, project name
 - Location of mitigation site: describe and show on current map.
 - Location of impact site
 - Description of all activities that have occurred on the mitigation site during the past year (i.e. grading, re-grading, planting, re-planting, weed eradication, etc.).
 - Documentation that success criteria are being met and statements regarding criteria listed in conditions 22 through 26, above.
 - Results of hydrologic monitoring to be conducted during early growing season including depth to saturation, extent of inundation and presence of secondary hydrologic indicators in the mitigation area.
 - Qualitative comparison/discussion of the mitigation site performance relative to the reference site.
 - Photographs from a minimum of three fixed photo-monitoring locations.
 - Recommendations for remedial or maintenance actions, as necessary
 - Other information necessary or required to document compliance with mitigation plan.

The monitoring period will start when the permittee has demonstrated that hydrology has been established and initial plantings have been accomplished. Failure to submit a monitoring report at the above date may result in an extension of the monitoring period and/or enforcement action.

Contingency

28. In the event that non-native plant cover exceeds 30% at any time during the monitoring period or less than 80% coverage/80% survival occurs in the emergent/shrub-tree area, the permittee shall submit to the Division, for

approval, a contingency plan describing specific actions and timeframes to return the site to design conditions.

29. Removal of the berm across the existing drainage channel shall only occur with the prior approval of the Division and shall be based on demonstration of successful hydrologic conditions and cover of desirable emergent species.

30. The Division retains the authority to extend the mitigation monitoring period and require corrective action in the event the success criteria are not accomplished for two consecutive years (without re-planting for failure to meet survival or cover criteria) within the 5-year monitoring period.

_____, 200_____