

1 supplied by either a General Electric 7FA gas turbine generator rated at
2 172.7 MW or a similar model gas turbine. For each unit, the high temperature
3 exhaust from the gas turbine generator will be ducted to a heat recovery steam
4 generator or boiler to generate steam. This steam will be used to drive a steam
5 turbine generator with an electrical generation capacity of 79.3 MW. Steam used
6 in power generation will be cooled and condensed back to water by a condenser or
7 heat exchanger using the cooling tower method.
8

9
10 IV.

- 11
12 (5)(a) Prior to construction, the site certificate holder shall submit certification
13 that at least 80 percent of the capacity from the proposed CSCP shall be
14 used by an energy supplier in the Pacific Northwest Region as defined in 16
15 U.S.C. 839a(14). The capacity and energy of the CSCP shall be used by
16 the site certificate holder for the benefit of its customers in its Oregon
17 service territory. Except as required for financing purposes, the site
18 certificate holder shall not sell or lease the facility and shall not contract for
19 firm energy or firm capacity for the output of the facility for a term
20 exceeding five years.
21
22 (b) In the event the site certificate holder does not complete construction of
23 phase two within five years from the execution of the site certificate, prior
24 to EFSC granting the site certificate holder an extension of the construction
25 completion date for phase two, the site certificate holder shall demonstrate
26 compliance with ORS 469.503(2) in lieu of compliance with Condition
27 IV(5)(a).
28
-

29
30 V.A.2

- 31
32 (4) If the site certificate holder requests an extension of the construction
33 completion deadline for phase two and the site certificate holder does not meet
34 the requirements of Condition V.A.2(3) above, the site certificate holder shall
35 demonstrate that the facility meets the requirements of ORS 469.5023(2) in
36 order for EFSC to approve extending the deadline.
37
38 (5) In no event will EFSC grant an extension of the construction completion
39 deadline for phase two of more than two years from the five year deadline
40 specified in applicant's warranty. The construction completion deadline for
41 phase two, as specified in applicant's warranty, or as may later be extended,
42 will not be tolled for reason of appeal of the EFSC's order.
43 /

1 V.A.3. Carbon Dioxide Emissions Standard for Phase Two: ORS 469.503(2)
2

3 (1) Prior to commencement of construction of phase two on an extended
4 construction completion schedule pursuant to Condition V.A.2(4), the site
5 certificate holder shall submit to the State of Oregon through the Council a
6 bond, letter of credit or escrow account executed by the site certificate holder
7 in the amount of the monetary path payment requirement (in 1998 dollars) as
8 determined by the calculations set forth in Condition V.A.3.(4) and based on
9 the estimated heat rate and capacity certified pursuant to Condition V.A.3.(5)
10 below and as adjusted in accordance with the terms of this site certificate
11 pursuant to Condition V.A.3(4)(d). For the purposes of this site certificate,
12 the "monetary path payment requirement" means the offset funds determined
13 pursuant to ORS 469.503(2)(c) and the selection and contracting funds
14 determined pursuant to ORS 469.503(2)(d)(A)(ii) that the site certificate
15 holder must disburse to the Oregon Climate Trust, as the qualified
16 organization, pursuant to ORS 469.403(2)(d)(A). The calculation of 1998
17 dollars shall be made using the index set forth below in sub-section (c).
18

19 (a) In the event that the Council approves a new site certificate holder, the
20 Council shall approve the bond, letter of credit or escrow account from the
21 new site certificate holder(s) unless the Council finds that the proposed
22 bond, letter of credit or escrow account does not provide comparable
23 security to the bond, letter of credit or escrow account of the current site
24 certificate holder. Such approval of a new bond, letter of credit or escrow
25 account will not require a site certificate amendment. The bond, letter of
26 credit or escrow account shall remain in effect until such time as the site
27 certificate holder has disbursed the full amount of the monetary path
28 payment requirement to the Oregon Climate Trust as provided in ORS
29 469.503(2)(d)(A).
30

31 (b) If the site certificate holder has provided a bond, letter of credit or escrow
32 account prior to commencing construction and if calculations pursuant to
33 Condition V.A.3.(6) demonstrate that the site certificate holder must
34 increase its monetary path payments, the site certificate holder shall
35 increase the bond, letter of credit or escrow account sufficiently to meet
36 the adjusted monetary path payment requirement within the time required
37 by Condition V.A.3.(4)(d). The site certificate holder may reduce the
38 amount of the bond, letter of credit or escrow account commensurate with
39 payments it makes to the Oregon Climate Trust.
40

41 (c) The calculation of 1998 dollars shall be made using the US Gross
42 Domestic Product Deflator for Total Non-Residential Fixed Investment, as
43 published by the US Department of Commerce, Bureau of Economic
44 Analysis, or any successor agency ("the index"). The amount of the bond,
45 letter of credit or escrow account shall increase annually by the percentage

1 increase in the index and shall be pro-rated within the year to the date of
2 disbursement to the Oregon Climate Trust. If at any time the index is no
3 longer published, the Council shall select a comparable calculation of
4 1998 dollars. The bond, letter of credit or escrow account shall not be
5 subject to revocation prior to disbursement of the full monetary path
6 payment requirement, including any adjusted monetary path payment
7 requirement. The terms of the bond, letter of credit or escrow account and
8 identity of the issuer shall be subject to approval by the Council, which
9 approval shall not be unreasonably withheld.

10
11 (d) If the site certificate holder establishes an escrow account for the monetary
12 path payment requirement, the portion of any interest accruing in the
13 escrow account up to the time of disbursement to the Oregon Climate
14 Trust that is equivalent to the 1998 dollar index adjustment (described in
15 sub-section (c)) shall be for the benefit of the Oregon Climate Trust and
16 shall be disbursed to the Oregon Climate Trust for use as specified in ORS
17 469.503(2)(d)(A). Any remaining interest that exceeds the 1998 dollar
18 adjustment at the time of disbursement of funds to the Oregon Climate
19 Trust shall be disbursed to the site certificate holder on its request.
20

21 (2) The site certificate holder shall disburse to the Oregon Climate Trust offset
22 funds and contracting and selection funds as requested by the Oregon Climate
23 Trust up to the monetary path payment requirement as determined by the
24 calculations set forth in Condition V.A.3.(4) and based on the estimated heat
25 rate and capacity certified pursuant to Condition V.A.3.(5) below (in 1998
26 dollars) and as adjusted in accordance with the terms of this site certificate
27 pursuant to Condition V.A.3.(4)(d). Disbursements shall be made in response
28 to requests from the Oregon Climate Trust in accordance with the
29 requirements of ORS 469.503(2)(d)(A).
30

31 (3) Notwithstanding anything in this amended site certificate to the contrary, the
32 site certificate holder shall have no obligation with regard to offsets, the offset
33 funds and the selection and contracting funds other than to make available to
34 the Oregon Climate Trust the total amount required under this site certificate,
35 nor shall any nonperformance, negligence or misconduct on the part of the
36 Oregon Climate Trust be a basis for revocation of this site certificate or any
37 other enforcement action by the Council with respect to the site certificate
38 holder.
39

40 (4) The site certificate holder shall use the following methodology to calculate the
41 amount of the monetary path payment requirement that it must make available
42 to the qualified organization pursuant to ORS 469.503(2)(d)(A). All
43 calculations shall be made assuming that no steam is supplied for
44 cogeneration. The site certificate holder shall use the contracted design
45 parameters for capacity and heat rate for phase two that it reports pursuant to

1 Condition V.A.3.(5) to calculate the estimated monetary path payment
2 requirement. The site certificate holder shall use the Year One Capacity and
3 Year One Heat Rate that it reports for phase two pursuant to Condition
4 V.A.3.(6) to calculate whether it owes additional monetary path payments.
5

6 (a) To calculate the offset funds payment requirement as provided in ORS
7 469.503(2)(c), the site certificate holder shall use the following
8 methodology:
9

10 (A) The site certificate holder shall multiply the nominal power of phase
11 two (kW) while operating on natural gas by 8,760 hours. It shall then
12 multiply that product by 30 years to determine the total net plant
13 output (kWh) of phase two. It shall multiply the total net plant output
14 of phase two by the heat rate (Btu/kWh) while operating on natural
15 gas and by the carbon dioxide emission factor for natural gas
16 (0.000117 lb. CO₂/Btu) to determine the total CO₂ emissions (lb.)
17 from operating phase two. The site certificate holder shall calculate
18 the CO₂ emissions rate (lb. CO₂/kWh) for phase two by dividing the
19 total CO₂ emissions by the total net plant output for phase two;
20

21 (B) The site certificate holder shall subtract the carbon dioxide standard
22 of 0.7 lb. CO₂/kWh from the CO₂ emissions rate for phase two to
23 determine its excess CO₂ emissions rate (lb. CO₂/kWh);
24

25 (C) The site certificate holder shall multiply the total net plant output
26 (kWh) for phase two by phase two's excess CO₂ emissions rate (lb.
27 CO₂/kWh). It shall then divide that product by 2,000 pounds to
28 determine the total tons of CO₂ emissions the site certificate holder
29 must mitigate (tons); then,
30

31 (D) The site certificate holder shall multiply the total tons of CO₂
32 emissions it must mitigate by \$0.57 per ton of CO₂ to determine the
33 sub-total for the offset funds.
34

35 (b) To calculate the selection and contracting funds sub-total as provided in
36 ORS 469.503(2)(d)(A)(ii), the site certificate holder shall subtract \$500,000
37 from the offset funds subtotal; then multiply the remaining amount by
38 4.286 percent; then add \$50,000 to that product.
39

40 (c) To determine its monetary path payment requirement, the site certificate
41 holder shall add the sub-total for the offset funds and the sub-total for the
42 selection and contracting funds.
43

44 (d) When the site certificate holder submits the Year One Test report required
45 in Condition V.A.3.(6), it shall increase its bond, letter of credit or escrow

1 account for the monetary path payment requirement if the calculation
2 using reported data shows that the adjusted monetary path payment
3 requirement exceeds the monetary path payment requirement for which
4 the site certificate holder had provided a bond, letter of credit or escrow
5 account prior to commencing construction, pursuant to Condition .A.3.(1).
6

7 (A) The site certificate holder shall make the appropriate calculations and
8 increase its bond, letter of credit or escrow account, if necessary,
9 within 30 days of filing its Year One Test report with the Council.
10

11 (B) In no case shall the site certificate holder diminish the bond, letter of
12 credit or escrow account it provided prior to commencing
13 construction or receive a refund from the qualified organization based
14 on the calculations made using the Year One Capacity and the Year
15 One Heat Rate.
16

17 (5) Prior to commencement of construction of phase two on an extended
18 construction completion schedule pursuant to Condition V.A.2(4), the site
19 certificate holder shall notify the Council in writing of its final selection of a
20 gas turbine vendor and shall submit written design information to the Council
21 sufficient to verify phase two's designed new and clean heat rate and its
22 nominal electric generating capacity at average annual site conditions. The
23 report shall also include an affidavit or other evidence that the site certificate
24 holder or a vendor has guaranteed the heat rate.
25

26 (6) Within two months of completion of the first year of commercial operation of
27 phase two built on an extended construction completion schedule pursuant to
28 Condition V.A.2(4), the site certificate holder shall provide to the Council
29 pursuant to ORS 469.503(2)(e)(G) a test report (Year One Test) of the actual
30 heat rate (Year One Heat Rate) and nominal generating capacity (Year One
31 Capacity) for phase two, without degradation, assuming no steam is supplied
32 for cogeneration, as determined by a 100-hour test at full power completed
33 during the first 12 months of commercial operation, with the results adjusted
34 for the average annual site condition for temperature, barometric pressure and
35 relative humidity and use of alternative fuels, and using a rate of 117 pounds
36 of carbon dioxide per million Btu of natural gas fuel.
37

38 (7) The combustion turbine for phase two shall be fueled solely with natural gas
39 or with synthetic gas with a carbon content per million Btu no greater than
40 natural gas.
41

42 (8) If the site certificate holder operates phase two as a cogeneration facility, the
43 site certificate holder shall not use steam from phase two to replace steam
44 generated by a biomass fuel at an off-site industrial facility.

1 XII.

- 2
- 3 1. The CSCP shall not exceed permitted emission levels, total emissions or the
- 4 allowable amount of distillate fuel use stated in its Air Contaminant Discharge
- 5 Permit (amended for distillate fuel burning). The CSCP's use of distillate fuel
- 6 in its phase one combustion turbine in any year shall not exceed an amount of
- 7 10 percent of the expected total fuel use, on a Btu higher heating value basis.
- 8
- 9 2. PGE shall not use #2 low sulfur distillate fuel oil in its phase one turbine at
- 10 CSCP prior to receiving an amended Air Contaminant Discharge Permit from
- 11 the Department of Environmental Quality authorizing it to burn distillate fuel.
- 12
- 13

14 **IN WITNESS WHEREOF**, Amendment Number Three to the Site Certificate has been

15 executed by the State of Oregon, acting by and through its Energy Facility Siting

16 Council, and Portland General Electric Company.

17

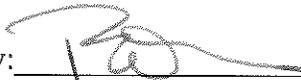
18 ENERGY FACILITY SITING COUNCIL

19

20

21

22

23 By:  _____

24 Terry Edvalson, Chair

25

26

Date: August 28, 1998

27 PORTLAND GENERAL ELECTRIC COMPANY

28 Walter E. Pollock

29

30

31

32 By:  _____

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Date: September 2, 1998