1		THERMAL POWER PLANT				
2						
3	THIRD AMENDED SITE CERTIFICATE					
4						
5		for the				
6						
7	HERMISTON POWER PROJECT					
8	(Includes Amendment No. 1, March 19, 1998, Amendment No. 2, January 23, 1998,					
9		Amendment No. 3, February 24, 2000, and Amendment No. 4, May 4, 2001)				
10 11	Thic	Site Certificate is made and entered into in the manner provided by ORS Chapter 469 by and				
11 12		een the State of Oregon (State), acting by and through its Energy Facility Siting Council				
13		SC" or "the Council"), and Hermiston Power Partnership ("HPP") an Oregon General				
14		ership.				
15						
16	I.	SITE CERTIFICATION				
17						
18	A.	To the extent authorized by State law and subject to the conditions set forth herein, the State				
19		approves and authorizes the construction, operation and retirement by HPP of a natural gas-				
20		fired combustion turbine energy facility, together with certain related or supporting				
21		facilities, at the site near Hermiston in Umatilla County, Oregon, in the manner described in				
22		the EFSC's Final Order, which by this reference is incorporated herein. The terms used in				
23		this Site Certificate shall have the meaning set forth in ORS 469.300 and Oregon				
24 25		Administrative Rules OAR 345-01-010. The facts, reasoning, conclusions and conditions relied on for approval are set out in EFSC's Final Order.				
25 26		reflect off for approval are set out in EFSC's Final Order.				
27		Subject to the conditions herein, this certificate binds the State and all counties, cities and				
28		political subdivisions in this State as to the approval of the site and the construction,				
29		operation and retirement of the facility, as to matters that are included in and governed by				
30		this Site Certificate. The Site Certificate is not binding with respect to matters not governed				
31		by and included in the Site Certificate, including permits issued under statutes and rules for				
32		which the decision on compliance has been delegated by the Federal government to a state				
33		agency other than EFSC.				
34	_					
35	В.	Each affected state agency, county, city and political subdivision with authority to issue a				
36		permit, license or other approval addressed in or governed by the Site Certificate or EFSC's				
37		Final Order shall, upon submission by HPP of the proper application and payment of the proper fees, issue such permit, license or other approval without hearing or other				
38 39		proper fees, issue such permit, license of other approval without hearing of other proceeding, subject only to conditions set forth in the Site Certificate. Each state agency or				
40		local government that issues a permit, license or other approval to HPP shall continue to				
41		exercise enforcement authority over such permit, license or other approval.				

For a permit, license or other approval addressed in the Site Certificate, HPP shall comply with applicable state and federal laws adopted in the future to the extent that such compliance is required under the respective state agency statutes and rules.

C. Both the State and HPP shall abide by local ordinances and state law and the rules of EFSC in effect on the date the Site Certificate is executed. The EFSC rules in effect on the date the Site Certificate is executed are attached as Exhibit B. In addition, upon a clear showing of a significant threat to the public health, safety or the environment that requires application of later-adopted laws or rules, EFSC may require compliance with such later-adopted laws or rules.

II. <u>DESCRIPTION OF SITE AND FACILITY</u>

The Hermiston Power Project is a combined-cycle combustion turbine electric generating plant, fueled primarily by natural gas, with a nominal capacity of 546 MW at annual average conditions. Distillate (diesel) fuel will be used if needed as a backup fuel. In addition to the generation of electricity, the facility will be designed to supply steam to the J.R. Simplot Company potato processing plant. [Amendment No. 4]

Energy Facility Site: The energy facility site is located on a 17 acre site adjacent to the J.R. Simplot ("Simplot") potato processing plant, approximately 3 miles south of Hermiston, Oregon. The energy facility site is on land zoned Heavy Industrial (HI). The location of the energy facility site is shown on the attached Figure 1.

Power Plant Structures and Major Equipment: The proposed energy facility will consist of several structures: a turbine-generator building; two heat recovery steam generator (HRSG) structures; two exhaust stacks approximately 195 feet in height; an administration/control building; storage tanks for raw and demineralized water; an electrical substation occupying approximately 50,000 square feet; two above ground 1,000,000 gallon distillate storage tanks; and two five-cell mechanical induced draft evaporative cooling towers, each with a height of approximately 42 feet. The combustion turbine will be surrounded with an acoustically insulated enclosure to reduce noise levels and to provide containment for automatic fire suppression equipment. The facility's water system, including treatment, component cooling, fire protection and condensate return is described in the ASC, Exhibit B, pp. 13 and 14a.

Power Enhancement Technology: The energy facility has peaking capability due to three power enhancement technologies: duct burners within the HRSG, steam augmentation and inlet fogging. The addition of these technologies allows the facility to produce approximately 100 MW of additional power during periods of peak demand. [Amendment No. 4]

Related and Supporting Facilities: Related and supporting facilities include two natural gas pipelines that will bring natural gas to the energy facility from interstate pipelines, a water pipeline which will carry raw water to the energy facility site, and one of two electrical transmission lines that will deliver output from the power plant to the BPA McNary substation.

 The two natural gas pipelines will deliver natural gas from the Pacific Gas Transmission (PGT) and Northwest Pipeline (NWP) interstate pipeline systems. Each pipeline would be approximately 12 inches in diameter and will be located underground. The PGT pipeline connection will be approximately 4.1 miles long and the NWP pipeline will be approximately 8.8 miles long. Both pipelines are related and supporting facilities as defined in OAR 345-01-010. HPP may construct one or both pipelines. The routes for these pipelines are described in the land use section of the EFSC Final Order and shown on Figures I-4 and I-5 in the ASC.

The raw water supply line for the energy facility will be approximately 16 inches in diameter and approximately 1.1 miles long. The route for the raw water supply line is shown on Figure I-3 in the ASC. This line will connect the energy facility site to the Port of Umatilla water supply project. HPP has an agreement to purchase water from the Port of Umatilla. The Port will obtain the water from the Columbia River under an existing municipal water permit issued by WRD, # 49497 ("Permit # 49497"). The Port's water supply project is not an energy facility and is not subject to EFSC regulation.

This Site Certificate permits construction along either one of two transmission line routes. Only one of the two will be built. The two transmission line routes include a 230 kV option and a 500 kV option.

The 230 kV option will be approximately 15.9 miles long. The route for the 230 kV transmission line is shown on Figures I-7A, I-7B and I-7C in the ASC. Approximately 12.3 miles of this would use the 230 kV transmission line route from the Westland Substation to the BPA McNary Substation, which is a double circuit steel pole 230/115 kV line. The Hermiston Generating Company L.P ("HGC") holds a Site Certificate for the 230 kV line in connection with its energy facility. The Umatilla Electric Cooperative Association ("UECA") owns and will operate the 230/115 kV line. If this option is chosen, HPP would replace UECA's 115 kV conductors and insulators with 230 kV conductors and insulators, thereby upgrading the line to a 230/230 kV line. No new right of way will be required for the 230 kV transmission line from the Westland Substation to the McNary Substation. UECA may relocate portions of the displaced 115 kV line along different routes elsewhere in Umatilla County. HPP intends to deed the 230 kV line to UECA.

The 500 kV option would require construction of approximately 14.2 miles of new 500 kV transmission line between the energy facility site and the McNary Substation. The route for the 500 kV transmission line is shown on Figures I-6A and I-6B in the ASC, as modified by Exhibit E to the Fourth Request to Amend Site Certificate. Most transmission line structures would be placed within existing BPA right of way with the remainder located on private lands. All construction will be entirely within Umatilla County with a portion also located within the City of Umatilla. The 500 kV line would be deeded to BPA. [Amendment No. 4]

Upon leaving the facility site, the 500 kV line will proceed north across the rail yard and then proceed approximately due east paralleling the rail yard. On the east side of Hinkle Road

the 500 kV line will turn north and parallel Hinkle Road until it intersects Feedville Road. At Feedville Road the line will proceed east for approximately 3.2 miles. At the intersection with Canal Road the line will proceed north for approximately .9 miles to its intersection with the BPA McNary-Roundup transmission line corridor. From this point the 500 kV line will parallel the McNary-Roundup line within BPA's existing 250 foot right-of way, and head in a northwesterly direction approximately 7.6 miles. Approximately 0.8 miles of this 7.6 mile section will include construction of a double-circuit 500/230 kV line with PacifiCorp. As the line approaches the McNary substation it will occupy existing double-circuit transmission structures now being used by the BPA Slatt-McNary and McNary-Lower Monument 500 kV lines. [Amendment No. 4]

The existing BPA 500 kV McNary-Lower Monumental transmission line will be displaced by the facility's 500 kV transmission line and will be relocated about 500 - 800 feet east of its present location, as shown on document ODOE-285.3 of the contested case record. This relocated section will be about one mile (5000 feet) in length. The relocation begins about 150 feet north of the intersection of Margaret Avenue and Lind Road at the existing 500 kV McNary-Lower Monumental transmission line to the east of Lind Road. The relocated line will then proceed north generally paralleling Lind Road, crossing Highway 730, and continuing north across the existing railroad tracks near the McNary Substation. After crossing the railroad tracks, the line would turn northwest and proceed about 700 feet to the McNary Substation.

The corridor for the relocated BPA 500 kV line includes a currently occupied residence. Pursuant to an agreement with the occupant of that residence, HPP will not place the centerline of the relocated 500 kV line closer than 80 feet to that property if it is occupied as a residence at the time of construction.

Power Generation Process Description: The Hermiston Power Project will consist of two identical, natural gas-fired, combined-cycle units. A gas turbine-generator is essentially a jet engine on a stationary mount that derives its power from the combustion of natural gas, which is used to turn an electric generator. The high-temperature exhaust from the gas turbine-generator is ducted to a heat recovery steam generator (HRSG) to generate steam. This steam, in turn, is used to drive a steam turbine-generator. The term "combined-cycle power plant" describes the sequential use of the fuel energy in both the gas turbine-generator and the steam turbine-generator.

 The Hermiston Power Project will use approximately 4,136 million British thermal units (MMBtu) of natural gas fuel per hour at full load. A BTU (British thermal unit) is the amount of energy needed to heat one pound of water one degree Fahrenheit. Fuel for the turbines will primarily be natural gas with distillate used only as backup fuel. [Amendment No. 4]

A power plant's steam cycle describes the process where water enters the heat recovery steam generator (HRSG) as a liquid and is changed into a high-temperature, high-pressure vapor (steam) whose energy can then be used to drive the steam turbine. In order to complete the steam cycle, low-pressure, low-temperature steam exiting the steam turbine-generator must be cooled to condense the steam back to liquid (water). The change from steam to liquid occurs in the

condenser. Cooling of the condenser is provided by a separate circulating water system known as the condenser/cooling tower loop.

The cooling tower provides a flow of relatively cold water to the condenser and receives heated water back from the condenser. The cooling tower is used to dissipate heat by evaporating a portion of the water circulating within the loop. Water lost through evaporation is replaced by the facility's cooling water makeup supply source. Cooling tower makeup water will be provided and sold to the facility by the Port of Umatilla. The Port of Umatilla will obtain the water sold to the Hermiston Power Project from the Columbia River under Permit # 49497. The evaporation rate from the cooling tower will vary between 960 gallons per minute and 2,667 gallons per minute, depending on steam turbine load and ambient weather conditions. The water use of the entire energy facility under full load conditions, while operating at an average ambient temperature of 53 degrees Fahrenheit, will be approximately 2,422 gallons per minute. [Amendment No. 4]

 The proposed power plant will produce wastewater from cooling tower blowdown, demineralization system backwash and from sanitary wastewater. The combined wastewater stream will be discharged to Simplot's existing wastewater discharge system, which reuses treated wastewater for irrigation. Simplot has an existing Water Pollution Control Facility (WPCF) permit administered by the Department of Environmental Quality ("DEQ"). Simplot has requested and obtained a modification to its WPCF permit to accommodate the additional discharge from the proposed energy facility. This permit is a "third party" permit under OAR 345-22-010(2).

III. <u>CONDITIONS</u>

Carbon Dioxide Emissions Standard, ORS 469.503(2)

(1) Prior to commencement of construction, the site certificate holder shall submit to the State of Oregon through the Council a guaranty substantially in the form of Amended Exhibit B-2, executed by Calpine Corporation in the amount of the monetary path payment requirement (in 1998 dollars) as determined by the calculations set forth in Condition 4 and based on the estimated heat rate and capacity certified pursuant to Condition 4(e) below and as adjusted in accordance with the terms of this site certificate pursuant to Condition 4(d). For the purposes of this site certificate, the "monetary path payment requirement" means the offset funds determined pursuant to ORS 469.503(2)(c) and the selection and contracting funds determined pursuant to ORS 469.503(2)(d)(A)(ii) that the site certificate holder must disburse to the Oregon Climate Trust, as the qualified organization, pursuant to ORS 469.403(2)(d)(A). The calculation of 1998 dollars shall be made using the index set forth below.

The guaranty shall remain in effect until such time as the site certificate holder has disbursed the full amount of the monetary path payment requirement to the Oregon Climate Trust ("Oregon Climate Trust") as provided in ORS 469.503(2)(d)(A).

In lieu of the guaranty requirement set forth above that the site certificate holder must provide prior to commencement of construction, the site certificate holder may instead provide a letter of credit in the amount of the monetary path payment requirement as calculated pursuant to Condition 4 below (in 1998 dollars) and based on the estimated capacity and heat rate of the plant as certified by the site certificate holder pursuant to Condition 4(e). If the site certificate holder has provided a letter of credit prior to commencing construction and if calculations pursuant to Condition 4(d) demonstrate that the site certificate holder must increase its monetary path payments, the site certificate holder shall increase the letter of credit sufficiently to meet the adjusted monetary path payment requirement within the time required by Condition 4(d). The site certificate holder may reduce the amount of the letter of credit commensurate with payments it makes to the Oregon Climate Trust.

The calculation of 1998 dollars shall be made using the US Gross Domestic Product Deflator for Total Non-Residential Fixed Investment, as published by the US Department of Commerce, Bureau of Economic Analysis, or any successor agency ("the index"). The amount of the letter of credit shall increase annually by the percentage increase in the index and shall be pro-rated within the year to the date of disbursement to the Oregon Climate Trust. If at any time the index is no longer published, the Council shall select a comparable calculation of 1998 dollars. The letter of credit shall not be subject to revocation prior to disbursement of the full monetary path payment requirement, including any adjusted monetary path payment requirement. The terms of the letter of credit and identity of the issuer shall be subject to approval by the Council, which approval shall not be unreasonably withheld. [Amendment No. 3]

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

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

(4) The site certificate holder shall use the following methodology to calculate the amount of the monetary path payment requirement that it must make available to the qualified organization pursuant to ORS 469.503(2)(d)(A). The same methodology shall apply to a one-unit or a two-unit facility. All calculations shall be made assuming that no steam is supplied for cogeneration. The site certificate holder shall use the contracted design parameters for capacity and heat rate for the facility that it reports pursuant to Condition 4(e) to calculate the estimated monetary path payment requirement. The site certificate holder shall use the Year One Capacities and Year One

Heat Rates that it reports for the facility pursuant to Condition 4(f) to calculate whether it owes additional monetary path payments.

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

(A) The site certificate holder shall use the respective capacity, heat rate, and carbon dioxide emission factor for each fuel. The carbon dioxide emission factor for natural gas is 0.000117 lb. CO_2/Btu , and for distillate fuel it is 0.000161 lb. CO_2/Btu ;

 (B) The site certificate holder shall determine the time the plant will operate using each fuel. For distillate fuel, the time shall be the average number of hours annually that this site certificate permits the facility to use distillate fuel pursuant to Condition 4(g). The site certificate holder shall determine the annual average hours of operation on natural gas by subtracting the annual average hours on distillate fuel from 8,760 hours;

(C) The site certificate holder shall calculate the total CO₂ emissions (lb. CO₂) for each fuel:

(i) First, the site certificate holder shall multiply the nominal power of the facility (kW) while operating on natural gas by the annual average hours of operation on natural gas. It shall then multiply that product by 30 years to determine the total net plant output (kWH). It shall multiply the total net plant output by the heat rate (Btu/kWh) while operating on natural gas and by the carbon dioxide emission factor for natural gas (0.000117 lb. CO₂/Btu) to determine the total CO₂ emissions (lb.) from operating on natural gas;

 (ii) Second, the site certificate holder shall multiply the nominal power of the facility (kW) while operating on distillate fuel by the annual average hours of operation on distillate fuel. It shall then multiply that product by 30 years to determine the total net plant output (kWh). It shall multiply the total net plant output by the heat rate (Btu/kWh) while operating on distillate fuel and by the carbon dioxide emission factor for distillate fuel (0.000161 lb. CO_2/Btu) to determine the total CO_2 emissions (lb.) from operating on distillate fuel; then,

(D) The site certificate holder shall calculate the average CO_2 emissions rate (lb. CO_2 /kWh) for the two fuels. It shall add the total CO_2 emissions that each fuel contributes for 30 years to determine the total combined CO_2 emissions from the facility (lb.). Then, it shall add the total net plant output from operation on each fuel for 30 years to determine the total combined plant output (kWh). Then it shall divide the total combined CO_2 emissions by the total combined plant output to determine the average CO_2 emissions rate for the facility (lb. CO_2 /kWh);

- (E) The site certificate holder shall subtract the carbon dioxide standard of 0.7 lb. CO_2/kWh from the average CO_2 emissions rate for the facility to determine its excess CO_2 emissions rate (lb. CO_2/kWh);
- (F) The site certificate holder shall multiply the total combined plant output (kWh) by the facility's excess CO₂ emissions rate (lb. CO₂/kWh). It shall then divide that product by 2,000 pounds to determine the total tons of CO₂ emissions it must mitigate (tons); then,
- (G) The site certificate holder shall multiply the total tons of CO_2 emissions it must mitigate by \$0.57 per ton of CO_2 to determine the sub-total for the offset funds.
- (b) To calculate the selection and contracting funds sub-total as provided in ORS 469.503(2(d)(A)(ii), the site certificate holder shall subtract \$500,000 from the offset funds subtotal; then multiply the remaining amount by 4.286 percent; then add \$50,000 to that product.
- (c) To determine its monetary path payment requirement, the site certificate holder shall add the sub-total for the offset funds and the sub-total for the selection and contracting funds.
- (d) When the site certificate holder submits the Year One Test report required in Condition 4(f), it shall increase its guaranty or letter of credit for the monetary path payment requirement if the calculation using reported data shows that the adjusted monetary path payment requirement exceeds the monetary path payment requirement for which the site certificate holder had provided a guaranty or letter of credit prior to commencing construction, pursuant to Condition 1.
 - (A) The site certificate holder shall make the appropriate calculations and increase its guaranty or letter of credit, if necessary, within 30 days of filing its Year One Test report with the Council.
 - (B) In no case shall the site certificate holder diminish the guaranty or letter of credit it provided prior to commencing construction or receive a refund from the qualified organization based on the calculations made using the Year One Capacities and the Year One Heat Rates.
- (e) Prior to commencement of construction, the site certificate holder shall notify the Council in writing of its final selection of gas turbine vendor and shall submit written design information to the Council sufficient to verify the facility's designed new and clean heat rate and its nominal electric generating capacity at average annual site conditions for each fuel type. The information that the site certificate holder submits shall include the proposed binding annual average number of hours of facility operation on distillate fuel oil. The report shall also include an affidavit or other evidence from the site certificate holder to confirm that the vendor has guaranteed the heat rate and that the site certificate holder's contract with the vendor includes a liquidated damages provision adequate to fund any increased monetary path payment requirement calculated under Condition 4(d) resulting from vendor's failure to achieve the guaranteed heat rates or capacities.

(f) Within two months of completion of the first year of commercial operation, the site certificate holder shall provide to the Council pursuant to ORS 469.503(2)(e)(G) a test report (Year One Test) of the actual heat rates (Year One Heat Rates) and nominal generating capacities (Year One Capacities) for each fuel type used, without degradation, assuming no steam is supplied for cogeneration, as determined by a 100-hour test at full power completed during the first 12 months of commercial operation, with the results adjusted for the average annual site condition for temperature, barometric pressure and relative humidity and use of alternative fuels, and using a rate of 117 pounds of carbon dioxide per million Btu of natural gas fuel and a rate of 161 pounds of carbon dioxide per million Btu of distillate fuel.

(g) The combustion turbine units shall be fueled solely with natural gas or with synthetic gas with a carbon content per million Btu no greater than natural gas, except that the site certificate holder may use distillate fuel for no more than an average of 378 hours per year calculated on a rolling average of the previous five years. For the first five years, distillate fuel use may fluctuate, provided that the average use, when calculated at the end of five years, does not exceed 378 hours per year. However, if prior to the commencement of construction the site certificate holder proposes in its written submission to the Council made pursuant to Condition 4(e) to use distillate fuel more or less than 378 hours on average per year, the number proposed by the site certificate holder shall replace 378 hours as the binding annual average number of hours for distillate fuel use under this Condition 4(g) and for calculations of the monetary path payment requirement.

Notwithstanding the number of hours permitted annually of distillate fuel use based on a five-year rolling average or during the first five years, in no year shall the facility's use of distillate fuel exceed 10 percent of its expected total annual fuel use in Btu, higher heating value.

Shelf Life: OAR 345-27-020(3)

(5) The Site Certificate holder shall begin construction of proposed facility by November 30, 2000 and shall complete construction by January 1, 2003.

(6) Construction completion of the facility shall be defined as the commercial operation date of the facility. If the Site Certificate holder begins construction by November 30, 2000 but cannot complete construction by January 1, 2003, then the Council may grant extensions of the construction completion date in accordance with OAR 345-27-030.

Organizational, Managerial And Technical Expertise: OAR 345-22-010

(7) Prior to commencement of construction, the Site Certificate holder shall demonstrate to ODOE that the Port has not forfeited its legal right to perfect the 2400 gpm contracted to HPP.

(8) Prior to commencement of construction, HPP shall have a contract or other agreement with Simplot to accept and dispose of HPP's wastewater.

- (9) Prior to construction, HPP shall identify for the Council's approval the EPC contractor chosen to construct the facility. Prior to commercial operation, HPP shall identify for the Council's approval the contractor chosen to operate the facility. Any such approval shall not be unreasonably withheld.
- 6 (10) All modifications to the partnership agreement shall be submitted to the Department for incorporation in the Site Certificate file.
 - (11) Any change of operator shall be reported to the Department.

- 11 (12) Any matter of non-compliance under this Site Certificate shall be the responsibility of the partnership. Any notices of violation issued will be issued to the partnership. Any civil penalties levied will be the responsibility of the partners jointly and severally.
- In the annual report submitted to the Council, the Site Certificate holder shall describe any (13)change in the membership or voting requirements of its management committee or any admission or withdrawal of a partner not described in any earlier annual report previously submitted to the Council. Any (a) such change in such membership or voting requirements resulting in a material change to the Site Certificate holder's existing management structure and procedures; (b) such admission resulting in a new partner's active participation in the business and affairs of the Site Certificate holder; or (c) such withdrawal resulting in the complete removal of an existing partner from its previously active participation in the business and affairs of the Site Certificate holder, shall be subject to approval of the Council, which approval shall not be unreasonably withheld or delayed.
 - (14) The Site Certificate holder shall contractually require the EPC contractor and all independent contractors and subcontractors involved in the construction and operation of the proposed facilities to comply with all applicable laws and regulations and with the terms and conditions of the Site Certificate. Such contractual provision shall not operate to relieve the Site Certificate holder of responsibility under the Site Certificate.

Financial Assurance: OAR 345-022-0050

(15) Prior to commencement of construction, the site certificate holder shall submit to the State of Oregon through the Council, a guaranty substantially in the form of Second Amended Exhibit A, executed by Calpine Corporation in the amount of \$8,202,000 (in 1995 dollars). The calculation of 1995 dollars shall be made using the index set forth below. The guaranty shall remain in effect until such time as the total security in the retirement fund described in Condition 16 below reaches \$8,202,000 (in 1995 dollars). For the purposes of this site certificate, "total security in the retirement fund" means the total amount of all cash, letters of credit and performance bonds deposited, issued or posted as security for the performance of the site certificate holder's obligation under OAR 345-022-0130.

- 1 In the event that Calpine Corporation's long-term unsecured debt is rated below "BB" or its
- 2 equivalent by S&P and Moody's or their successors, the site certificate holder shall provide a
- 3 letter of credit in the amount of \$8,202,000 (in 1995 dollars) less all amounts then on deposit in
- 4 the retirement fund. The calculation of 1995 dollars shall be made using the U.S. Gross
- 5 Domestic Product Deflator for Total Non-Residential Fixed Investment, as published by the U.S.
- 6 Department of Commerce, Bureau of Economic Analysis, or any successor agency ("the index").
- 7 The amount of the letter of credit shall increase annually by the percentage increase in the index.
- 8 If at any time the index is no longer published, the Council shall select a comparable calculation
- 9 of 1995 dollars. The letter of credit shall not be subject to revocation during the lifetime of the
- facility. The terms of the letter of credit and identity of the issuer shall be subject to approval by
- the Council, which approval shall not be unreasonably withheld. All funds received by the site
- certificate holder from the salvage of equipment or buildings shall be committed to the
- restoration of the facility site to the extent necessary to fund the approved restoration.
- 14 [Amendment No. 3]

(16) This condition shall apply only while the site certificate holder satisfies Condition 15 with a guaranty instead of a letter of credit.

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- Starting with the first year of commercial operation, the site certificate holder shall establish a
- retirement fund and begin making commitments to the fund in the amount of \$800,000 (or more
- 21 if the site certificate holder chooses) in the form of a letter of credit, performance bond, or cash
- 22 ("annual commitments"). The terms of the security and identity of the issuer of a letter of credit 23 or performance bond shall be subject to approval by the Council, which approval shall not be
- 24 unreasonably withheld. Such annual commitments shall continue until the total security in the
- retirement fund reaches \$8,202,000 (in 1995 dollars) in no event later than 10 years from the date
- of commercial operation. The calculation of 1995 dollars shall be made using the U.S. Gross
- Domestic Product Deflator for Total Non-Residential Fixed Investment, as published by the U.S.
- Department of Commerce, Bureau of Economic Analysis, or any successor agency ("the index").
- After the security in the fund reaches \$8,202,000 (in 1995 dollars), the fund shall increase
- annually by the percentage increase in the index. If at any time the index is no longer published,
- 31 the Council shall select a comparable calculation of 1995 dollars. In the event the security in the
- retirement fund is less than \$8,202,000 (in 1995 dollars) at the time the site certificate holder
- notifies the Council of its intent to retire the facility, the annual commitments to the retirement
- fund shall be adjusted so as to assure that the total security in the funds is \$8,202,000 (in 1995)
- dollars) at the time of retirement. the site certificate holder shall describe the status of the fund in
- the annual report submitted to the Council. All funds received by the site certificate holder from
- 37 the salvage of equipment or buildings shall be committed to the restoration of the facility site, to
- the extent necessary to fund the approved restoration. [Amendment No. 3]

- 40 (17) In the event construction is begun but not completed by the deadlines set forth in the Site
- Certificate, or the energy facility is closed permanently before the end of its useful life, HPP shall restore the site to a useful condition. Restoration shall include but not be limited to the removal of
- transmission line towers erected by the Site Certificate holder unless the Council determines that

such towers are likely to be used by another facility, electric utility or other entity that provides electric service.

Structural: OAR 345-22-020

(18) Prior to the start of construction, HPP shall conduct an investigation as described by Mr. D. Wermiel of DOGAMI in a letter dated May 9, 1995 to Mr. A. Bless, ODOE which would confirm HPP's characterization of ground response to potential seismic events. The ground response evaluation will include drilling one deep boring to bedrock and measuring downhole shear wave velocity profile beneath the energy facility site. Based on the site-specific measurements, ground response and amplification will be evaluated.

The geotechnical investigation shall be peer reviewed by the DOGAMI or by a private engineering geologist or geotechnical engineer registered in the state of Oregon that is independent from HPP and the HPP's contractors and subcontractors. If a private engineering geologist or geotechnical engineer is used, the choice of peer reviewer shall be approved by ODOE in consultation with DOGAMI.

(19) If the detailed survey reveals evidence that is not as described in the ASC, then the HPP shall revise the facility design parameters to comply with corresponding Oregon Building Code requirements. If pre-construction seismic analysis reveals features unique to the energy facility site that justify enhanced seismic design, HPP shall design safety structures critical to public health or safety in consultation with the Building Codes Division of the Department of Consumer and Business Services ("DCBS"), subject to approval by ODOE. Critical structures include hazardous material storage areas and control rooms.

(20) Except as provided for in condition 2 above, HPP shall design and construct the proposed facility to be consistent with Seismic Zone 2b requirements, in compliance with the laws and regulations administered by the DCBS.

(21) HPP shall place electrical transmission towers to avoid, to the greatest extent possible given the existing alignment, the narrow strip of alluvium along the Umatilla River that may be subject to liquefaction. If this strip cannot be avoided, the transmission towers shall be constructed so as to otherwise mitigate for the risk of liquefaction. Mitigation measures shall be developed in consultation with DOGAMI.

(22) HPP shall design the energy facility in accordance with a design basis seismic event of magnitude 4.5 along the service Anticline at a distance of 1 km from the energy facility site, as described on p. 14a of Exhibit G of the ASC, and in accordance with a Seismic Zone 2b classification by the Oregon Building Code.

42 (23) HPP shall embed transmission line tower foundations below significant loose soils as described on p. 16 of Exhibit G of the ASC.

1 (24) The PGT pipeline shall be embedded below loose soil deposits combined, if necessary with the use of free draining, coarse granular backfill as described in the ASC, Exhibit G p. 17.

 (25) Along the 500 kV transmission line right of way in the vicinity of Maxwell Canal, near Diagonal Road, east and north of Hermiston, along the relocated BPA 500 kV McNary to Lower Monumental line between Highway 730 and Power City Road, and in the area near Power City, transmission line poles will be constructed in upland areas and/or on higher ground underlain by dense granular soil with negligible liquefaction potential as described in ASC Exhibit G p. 17.

(26) Transmission pole and pipeline locations that could be subject to settling, slumping or liquefaction shall be tested for soil properties prior to pole and pipe installation, as described on page 19 on Exhibit G of the ASC.

Soil Protection: OAR 345-22-022

(27) Ground disturbing activities and incidental activities (e.g., personal vehicle parking, sanitary facilities, temporary staging areas, etc.) for the facility shall be confined to a limited number of locations identified by HPP and approved by the Department prior to commencement of construction.

(28) Only existing roadways shall be used for access along the pipelines; access for transmission line construction and maintenance shall utilize existing roads wherever practicable and temporary transmission line access roads shall only be constructed where there is open terrain with no existing access road; and no permanent impacts shall be associated with pipeline or transmission line access road construction or maintenance.

(29) Topsoils and subsoils resulting from excavation for gas and water pipelines shall be segregated and the topsoil restored to minimize impacts on soil fertility.

(30) The Site Certificate holder shall utilize site watering or other methods to reduce wind erosion during site earthwork or construction. Post construction soil stabilization methods shall be utilized as described on ASC Exhibit G p. 18.

Protected Areas: OAR 345-22-040

(31) The Site Certificate holder shall not operate the Circulating Water System at above 5,200 ppm, TDS equivalent on an annual average basis. Drift rate shall not result in solids carryover exceeding the equivalent of 0.005% drift rate at 5,200 ppm, TDS.

Fish and Wildlife: OAR 345-22-060

- 42 (32) Any trimming, side cutting or other removal of riparian vegetation that may be required
- 43 under the proposed 500 kV transmission line shall be kept to a minimum and shall only be
- conducted to meet National Electric Safety Code clearances.

(33)

Construction and maintenance of the transmission lines and natural gas pipelines shall

avoid all wetlands, except for the two wetland areas (wetlands #4 and #15) that will be

wetland area, wetland #13, that may be impacted by pole placement.

into the river (ASC, Exhibit P, p. 15).

Lepus townsendii. [Amendment No. 4]

the species listed above.

[Amendment No. 4]

unavoidably impacted as stated in the ASC (Exhibit H, p. 11f; Exhibit P, p. 11b) and the one

No ground disturbing activities shall be conducted in the Umatilla River, no water withdrawals from the Umatilla River shall occur, and the energy facility shall not discharge water

Non-wetland areas disturbed by construction of the energy facility, the equipment

Subject to Condition (37), if feasible, construction of the natural gas pipelines, water

supply line and transmission line shall occur outside of sensitive time periods (as described in the

proposed natural gas pipelines, water supply line and transmission line: painted turtle, long-billed

shrike, Lanius ludovicianus, sagebrush lizard, Sceloporus graciosus, and white-tailed jackrabbit,

activities and locations, if any, of planned construction of the gas pipelines, water supply line and

transmission line during the sensitive time periods for the species listed above. HPP shall consult

Not less than 60 days prior to the sensitive time periods for species listed above, HPP shall notify ODOE in writing of any construction activities on the gas pipelines, water supply line

scheduled to occur outside the sensitive time periods for the above listed species of concern, pre-

construction biological surveys shall be conducted by a wildlife biologist within the impact area

location of wildlife species of concern or their nest sites. HPP shall develop the methodology for

with ODFW to make every effort to schedule construction activities to avoid adverse impact on

Notwithstanding Condition (36), prior to construction of the gas pipelines, water supply

ASC, Exhibit P/P-1, page 44a, and Exhibit L, Fourth Request to Amend Site Certificate) for the

following wildlife species of concern which were documented within the impact area of the

curlew, grasshopper sparrow, Swainson's hawk, burrowing owl, bank swallow, loggerhead

line and transmission line HPP shall provide to ODOE a construction schedule, including

and transmission line scheduled for those time periods. If construction activities cannot be

of the proposed natural gas pipelines, water supply line and transmission line to identify the

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storage/staging area and employee parking staging area, the natural gas pipelines, the water supply pipeline, and the transmission lines shall be revegetated upon completion of construction. 13 14 Revegetation shall emphasize the use of native species and shall be conducted in accordance with 15 the Revegetation and Wetland Mitigation Plan, Hermiston Power Project, dated June 26, 1995.

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these pre-construction surveys in consultation with ODFW prior to conducting the surveys. 41 Mitigation for potential impacts to any wildlife species of concern and/or their nest sites found 42

43 during pre-construction surveys shall be developed by HPP prior to construction of the gas pipelines, water supply line and transmission line and in consultation with ODFW. The 44

Page 14 THIRD AMENDED SITE CERTIFICATE (HPP)

May 4, 2001

mitigation plan shall be submitted to ODFW and ODOE for review and approval prior to construction of the gas pipelines, water supply line and transmission line. ODOE shall make a final determination on the mitigation plan within 45 days of its submission.

(38) Upon completion of construction of the energy facility, two raptor perching poles shall be placed near the outside edge of the 17 acre energy facility site. The design and location of these raptor perching poles shall be developed in consultations with ODFW. Raptor perching poles shall be located to benefit raptors without interfering with the energy facility plant operation and maintenance.

 (39) Transmission lines shall span the Umatilla River and associated riparian habitat in order to avoid adverse impacts, as described in the ASC (Exhibit P, p. 15). The natural gas pipelines, water supply line, and transmission lines shall be routed to avoid riparian areas and wetlands adjacent to the Umatilla River. All permanent access routes shall be designed to be set back at least 50 feet from the Umatilla River, as described in the ASC (Exhibit N, p. 7a).

(40) The following areas shall be flagged in the field prior to the start of construction to delineate the maximum extent of project disturbance:

i. the natural gas pipeline and transmission line routes through wetlands #4, #13, and #15;

ii. any natural gas pipeline, water supply line, and transmission line routes within 50 feet of the Umatilla River; and

iii. the transmission line crossings of the Umatilla River.

(41) Notification shall be provided to the ODFW's Pendleton District office at least one week (7 days) prior to the start of construction for the power plant, natural gas pipelines, water supply pipeline, and transmission lines.

(42) Measures taken to mitigate impacts to fish and wildlife and their habitats shall be monitored by HPP. Monitoring methodologies and schedules shall be developed in consultation with ODFW. A mitigation monitoring plan shall be submitted to ODFW and ODOE for review and approval prior to issuance of a notice to proceed. If any mitigation measures are determined by the HPP or ODFW to be unsuccessful, corrective actions shall be taken by the applicant after consultation with ODFW.

(43) A minimum of ten (10) cottonwood (*Populus trichocarpa*) tree saplings shall be planted, in an appropriate habitat area, and within the vegetation impact area for the natural gas pipelines and electrical transmission lines for every cottonwood tree removed during construction of the natural gas pipelines and electrical transmission lines.

1 (44) The project shall not impact any native vegetation within the U.S. Army's Umatilla 2 Ordinance Depot.

(45) HPP shall design transmission lines with a separation between conductors greater than 5 feet, and shall consider other techniques to reduce collision potential (e.g., clustering lines, placing colored serial marker ball on the line, etc.)

(46) Top soils and subsoils resulting from excavation for gas and water pipelines shall be segregated and the top soil restored.

(47) The Swainson's hawk nest south of the proposed energy facility (described in ASC Ex P, page 19) shall be monitored during the two weeks prior to facility construction to determine if the nest is active. If the nest is determined to be active, a qualified biologist shall be retained to monitor the nest during facility construction and maintain contact with ODFW. If monitoring indicates that facility construction is adversely impacting nesting Swainson's hawks or their young, a mitigation plan shall be developed after consultation with ODFW.

Threatened and Endangered Species: OAR 345-22-070

(48) Raptor protection shall be employed in the design and construction of the transmission towers and transmission lines following the methods described by Olendorf, R.L., A.D. Miller, and R.N. Lehman, 1981, <u>Suggested practices for raptor protection on power lines</u>, Raptor Research Foundation, University of Minnesota, St. Paul, Minnesota. A detailed design shall be submitted to the ODFW for review and approval during the design phase of the project. All energized transmission conductors shall be designed with adequate separation of a minimum of five feet.

(49) Notification shall be provided to the ODFW's Pendleton District office at least one week (7 days) prior to the start of construction for the power plant, natural gas pipelines, water supply pipeline, and transmission lines.

 (50) HPP shall conduct a pre-construction survey to determine if *Astragalus collinus var. laurentii* is present along the route of the relocated BPA 500 kV transmission line where the route crosses the slope that occurs north of Highway 730. The survey shall be conducted during the appropriate field season (May through early July) by a qualified biologist. If the species is found to occur in areas that might be affected by construction of the relocated BPA 500 kV line, HPP shall contact ODOE and the Oregon Department of Agriculture, Plant Conservation biology Program to develop a mitigation plan.

HPP shall conduct a pre-construction survey to determine if individuals of any rare plant species (*Astragalus collinus* var. *laurentii*, *A. sclerocarpus*, *A. succumbens*, *Balsamorhiza rosea*, *Cryptantha leucophaea*, and *Lomatium watsonii*) are present along the revised route of the HPP 500 kV transmission line described in the Fourth Request to Amend Site Certificate. The survey shall be conducted during the appropriate field season (May or June) by a qualified biologist. If

individual plants of a rare species are found to occur in areas that might be affected by construction of the rerouted HPP 500 kV transmission line, HPP shall contact the Office of Energy and the Oregon Department of Agriculture, Native Plant Conservation Program, to develop a mitigation plan prior to construction in the affected area. [Amendment No. 4]

Scenic and Aesthetic Values: OAR 345-22-080

(51) To minimize visual intrusion caused by the stacks, the stacks shall be painted in a matte finished neutral color to minimize the potential for glare caused by reflective surfaces. Colors shall be chosen to blend with the surrounding area, to the extent that the choice does not compromise air traffic safety.

(52) Landscaping shall be used to screen the energy facility from the nearest residence and roadways to the extent reasonably feasible. Shrubbery and trees planted along the perimeter of the energy facility site and other landscaping shall be well-maintained and include low-maintenance and indigenous plants.

(53) To minimize project visibility at night, outdoor lighting shall be limited to the extent necessary to maintain safety conditions.

(54) HPP will not put up signs along Feedville Road without authorization from the County.

Historic, Cultural, and Archaeological Resources: OAR 345-22-090

(55) HPP shall consult with CTUIR before commencing construction. HPP shall allow tribal monitoring by CTUIR of earth-moving activities within areas with a high potential for containing archaeological remains. These areas are identified in Figure T-5 of the ASC.

(56) HPP shall notify the CTUIR before starting construction and shall provide the opportunity for a CTUIR representative, knowledgeable in cultural resources of the area, to be available for periodic on-site monitoring during construction activities.

 (57) If resources are discovered during project construction or construction-related activities that are likely to be eligible for listing on the National Register of Historic Places or to qualify as archeological objects or sites, HPP shall stop all work in the immediate area of the find and consult with the CTUIR and SHPO. HPP shall not restart work in the affected area until it has complied with the archeological permit requirements administered by SHPO (currently set forth in OAR Chapter 736, Division 51).

42 (58) HPP shall place the transmission towers/poles away from the banks of the Z, Maxwell, A-43 Line and Feed canals, and the Hermiston and Stanfield Branch Furnish Ditches, and shall avoid any disturbance at the canal crossings when electrical lines are strung, to avoid disturbance of the canal features during construction and operation of the transmission line.

(59) If practicable, HPP shall avoid disturbance to the Feed Canal in construction of the NWP pipeline. If construction cannot avoid the canal, HPP shall consult with SHPO and shall take steps required by SHPO to mitigate adverse impacts to the canal. Fill excavated during any construction at the canal shall be monitored by a professional historic archaeologist.

(60) HPP shall consult with the irrigation district in which the canal is located before construction or the upgrading of the transmission line in the area of the canal to determine whether there are any applicable restrictions.

Recreation: OAR 345-22-100

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Socio-Economic Impacts: OAR 345-22-110

NPDES permit 1200-H as administered by DEQ.

(61) HPP will hire as many local workers as is reasonably possible for both the construction and operation of the Project. A "local" worker is one who resides within a 60 mile radius from the project site encompassing part of Umatilla and Morrow Counties in Oregon and the part of Benton, Franklin and Walla Walla counties in Washington. HPP will establish a single point of contact with the Oregon Employment Department in Pendleton Oregon to coordinate employment opportunities at the project site.

(62) During construction, contracted portable toilet facilities shall be used. During operation, domestic wastewater will be treated by the Simplot Company treatment system.

(63) HPP shall retain stormwater on-site in a stormwater detention pond. During an extreme event, excess stormwater will be discharged from the settlement basin to the natural drainage. Prior to construction the Site Certificate holder will obtain from the Department of Environmental Quality a general National Pollutant Discharge Elimination System (NPDES) permit 1200-C for construction of the facility. Prior to operation the facility will obtain a general

 (64) The energy facility shall be constructed with fire hydrants and a sprinkler and deluge system. An employee training program will be implemented and records maintained as described in the ASC, Exhibit U p. 19. An early warning gas release system will be installed as described in the ASC Exhibit U p. 19.

- 40 (65) During construction, HPP shall establish a housing clearing house at the energy facility site for construction workers. The clearing house shall coordinate with local officials and housing
- 42 owners to place workers who need lodging as necessary. During construction, HPP shall monitor
- 43 the central vacancy rate in the cities of Umatilla, Stanfield and Hermiston. If the vacancy rate
- falls below seven percent, the clearing house will begin its activity to locate available housing

outside of Umatilla, Stanfield and Hermiston so a listing of available housing outside of these cities can be provided to temporary workers should the vacancy rate fall below five percent. If the vacancy rate falls below five percent, HPP shall locate housing outside of Umatilla, Stanfield and Hermiston, or offer temporary housing for any temporary workers that it hires from outside the local area. HPP shall provide a plan of operation for the housing clearing house to ODOE prior to the start of construction. HPP shall provide such a plan at least 60 days prior to the start of construction and ODOE shall review and respond with its approval or comments not later than 30 days after the plan is submitted.

(66) Construction worker traffic patterns to the energy facility site will be coordinated with the state, county and adjacent Simplot potato processing facility. If necessary, sight distances will be improved and a left turn lane provided on Simplot's private access road at its intersection with State Road 207.

(67) Rail delivery shall be used to the extent practical to minimize heavy-haul truck trips during construction.

 (68) HPP shall, in consultation with the Hermiston Rural Fire Protection District, establish a pre-fire plan which shall be available to the local fire district. The plan shall describe key entrances and exits, the floor plan of the energy facility, the location of hydrants and hoses, and the location and description of any hazardous materials.

Waste Minimization: OAR 345-22-120

(69) During construction of the facility, HPP shall identify means of minimizing waste generation and shall recycle waste to the extent reasonably practicable. HPP shall also implement a waste minimization and recycling program to remain in effect throughout the life of the facility.

(70) HPP shall ship used batteries, spent demineralizer resins and spent oxidation catalysts to vendor recycling facilities. Used SCR catalysts will be shipped to a metals reclaiming facility.

(71) During operation, all waste materials shall be contained on the energy facility site within the site perimeter fence and screened from view. Process waste will be stored in closed containers. Used batteries shall be stored indoors. Hazardous waste shall be stored and transported in accordance with applicable state and federal law.

(72) HPP shall implement, to the extent reasonably practical, design features such as those described in Exhibit V pages 4 through 6 to reduce unnecessary water consumption. Such features may include but are not limited to controls to maximize demineralizer resin efficiency, utilization of optimal cycles of concentration, selection of advanced gas turbines, sizing of the condenser to condense all steam produced in the HRSG, recovery of filter backwash water, reprocessing of filtrate from the sludge dewatering system, and incorporation of a two pass Reverse Osmosis system.

(73) Non hazardous chemicals shall be selected for water treatment to allow use of waste water for irrigation.

(74) Steam condensate that is recovered in the potato processing plant will be returned to the energy facility for reuse.

 (75) Upon completion of construction, HPP shall dispose of all temporary structures not required for future operation of the facility and all used timber, brush, refuse, or flammable material resulting from clearing of lands or from construction of the facility.

Retirement: OAR 345-22-130

(76) HPP shall manage all hazardous material in accordance with local and state regulatory standards. Documentation will be maintained and hazardous materials will be handled by qualified personnel. Hazardous waste will be stored on site no more than 90 days, followed by transport to a licensed treatment storage disposal facility, as described in ASC, exhibit B p.15a.

(77) Storage and handling of flammable and combustible liquid chemicals shall be in compliance with National Fire Protection Association Codes 30 and 321. Chemical storage areas will have secondary containment. Storage tanks for distillate shall have secondary containment. HPP shall comply with Uniform Building Code Chapters 79 for Hazardous Materials and 80 for Flammable Liquids. Concrete basins will be provided at each of the large electrical transformers to capture any insulating oil that might spill during a transformer failure or maintenance operation. (ASC Exhibit F p.6) Foundations and slabs for equipment containing lubricating oil, insulating oil or hydraulic fluid shall be designed to contain and collect any spill. Secondary containment for hazardous material storage areas shall have volume equal to 100 percent of the maximum chemical volume in primary containment (ASC Exhibit F p. 9)

(78) HPP shall prevent any condition over which the certificate holder has control from developing on the site that would preclude restoration of the site to a useful condition. (OAR 345-27-020(9)).

(79) This condition shall apply only while the site certificate holder satisfies Condition 15 with a guaranty instead of a letter of credit.

Starting with the first year of commercial operation, the site certificate holder shall establish a retirement fund and begin making commitments to the fund in the amount of \$800,000 (or more if the site certificate holder chooses) in the form of a letter of credit, performance bond, or cash ("annual commitments"). The terms of the security and identity of the issuer of a letter of credit or performance bond shall be subject to approval by the Council, which approval shall not be unreasonably withheld. Such annual commitments shall continue until the total security in the retirement fund reaches \$8,202,000 (in 1995 dollars) in no event later than 10 years from the date of commercial operation. The calculation of 1995 dollars shall be made using the U.S. Gross Domestic Product Deflator for Total Non-Residential Fixed Investment, as

published by the U.S. Department of Commerce, Bureau of Economic Analysis, or any successor 1 agency ("the index"). After the security in the fund reaches \$8,202,000 (in 1995 dollars), the 2 fund shall increase annually by the percentage increase in the index. If at any time the index is 3 no longer published, the Council shall select a comparable calculation of 1995 dollars. In the 4 event the security in the retirement fund is less than \$8,202,000 (in 1995 dollars) at the time the 5 6 site certificate holder notifies the Council of its intent to retire the facility, the annual 7 commitments to the retirement fund shall be adjusted so as to assure that the total security in the 8 funds is \$8,202,000 (in 1995 dollars) at the time of retirement. The site certificate holder shall describe the status of the fund in the annual report submitted to the Council. All funds received 9 10 by the site certificate holder from the salvage of equipment or buildings shall be committed to the restoration of the facility site, to the extent necessary to fund the approved restoration. 11

12 [Amendment No. 3]

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In the event construction is begun but not completed by the deadlines set forth in the Site Certificate, or the energy facility is closed permanently before the end of its useful life, HPP shall restore the site to a useful condition. Restoration shall include but not be limited to the removal of transmission line towers erected by the Site Certificate holder unless the Council determines that such towers are likely to be used by another facility, electric utility or other entity that provides electric service.

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At least five years prior to planned permanent closure of the facility, HPP shall submit a retirement plan to the Council for approval. The plan shall describe how the site will be restored adequately to a useful condition, including options for post-retirement land use, information on how impacts to fish, wildlife and the environment will be minimized during the retirement process, measures to protect the public against risk or danger resulting from post-retirement site conditions. The plan shall provide for restoration of vegetation to the maximum extent consistent with the anticipated use of the site after the facility is retired.

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HPP shall retire the facility at the end of its useful life in accordance with the approved final retirement plan, pursuant to OAR 345-27-110.

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The retirement plan shall provide for restoration of vegetation to the maximum extent consistent with the anticipated use of the site after the facility is retired.

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Not later than four months before commencing construction of the transmission line, or immediately before commencing construction of the energy facility (whichever is sooner) HPP shall notify ODOE of which alternative transmission line route will serve the energy facility. Once this election has been made, Council approval of the other alternative transmission line shall terminate.

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Mandatory Conditions (General): OAR 345-27-020

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43 The following mandatory conditions are either specifically required by OAR 345-27-020 or are appropriate under OAR 345-27-020(6) to address project and site specific conditions and 44

1 requirements. These mandatory conditions shall apply and should be read together with the specific additional conditions in this Site Certificate to ensure compliance with the siting 2 standards of OAR 345 divisions 22, 23 and 24, and to protect the public health and safety. 3 4 5 The Site Certificate holder shall submit to the department a legal description of the site to (85)6 be appended to the Site Certificate prior to construction. 7 8 The facility shall be designed, constructed, operated and retired: (86)9 10 (a) Substantially as described in this Site Certificate and in the Final Order; 11 (b) In compliance with the requirements of ORS Chapter 469, applicable Council rules, 12 and applicable state and local laws, rules and ordinances in effect at the time the Site Certificate 13 14 is issued; and 15 (c) In compliance with all applicable permit requirements of other state agencies. 16 17 18 Construction of the facility must begin and be completed by dates specified in Condition (87)19 5 of this Site Certificate. 20 No construction, including clearing of a right of way, except for the initial survey, may 21 (88)commence on any part of the facility until the Site Certificate holder has adequate control, or has 22 23 the statutory authority to gain control, of the lands on which clearing or construction will occur. 24 25 The certificate holder shall submit to the State of Oregon, through the Council, a bond or comparable security, satisfactory to the Council, in an amount specified in the certificate 26 adequate to restore the site to a useful condition if the certificate holder: 27 28 29 (a) Begins but does not complete construction of the facility; or 30 31 (b) Permanently closes the facility before establishing a financial mechanism or 32 instrument, satisfactory to the Council, that will assure funds will be available to adequately 33 retire the facility and restore the site. 34 35 If mitigation is required after an affirmative finding by the Council under any standards of division 22 or division 24 of this chapter, the certificate holder, in consultation with affected state 36 agencies and local governments designated by the Council, shall develop specific mitigation 37 plans consistent with Council findings under the relevant standards. Such plans must be 38 39 approved by the department prior to the beginning of construction or, as appropriate, operation.

The certificate holder shall prevent any condition over which the certificate holder has

control from developing on the site that would preclude restoration of the site to a useful

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43 44 condition.

(92)Conditions related to facility retirement and site restoration:

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- 3 (a) The certificate holder shall establish a financial mechanism or instrument, satisfactory to the Council, that will assure funds will be available to adequately retire the facility and restore the site;
 - (b) At least five years prior to planned retirement of the facility, the certificate holder shall submit a retirement plan to the Council for approval. The plan shall describe how the site will be restored adequately to a useful condition, including options for post-retirement land use, information on how impacts to fish, wildlife and the environment will be minimized during the retirement process and measures to protect the public against risk or danger resulting from postretirement site conditions; and
 - (c) The facility shall be retired after its useful life in accordance with the approved final retirement plan, pursuant to OAR 345-27-110.
 - (93)The certificate holder shall restore vegetation to the extent practicable and shall landscape portions of the site disturbed by construction in a manner compatible with its surroundings and/or proposed future use. Upon completion of construction, the certificate holder shall dispose of all temporary structures not required for future use and all timber, brush, refuse and flammable or combustible material resulting from the clearing of land or from construction of the facility.
 - The facility shall be designed, engineered and constructed to avoid potential dangers to human safety presented by seismic hazards affecting the site as defined in ORS 455.447(1)(d), and including amplification, that are expected to result from the reasonably probable seismic event.

Mandatory Conditions (Site-Specific): OAR 345-27-023

- The certificate holder shall notify the department, the State Building Codes Division and (95)the Department of Geology and Mineral Industries promptly if site investigations or trenching reveal that conditions in the foundation rocks differ significantly from those described in the Application for Site Certificate. The Council may, at such time, require the certificate holder to propose additional mitigating actions in consultation with the Department of Geology and Mineral Industries and the Building Codes Division.
- The certificate holder shall notify the department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site.

Mandatory Conditions (Monitoring): OAR 345-27-028

The certificate holder shall establish, in consultation with affected state agencies and local governments, monitoring programs as required by the Site Certificate for impact on resources

protected by the standards of division 22 and 24 of this chapter, and to ensure compliance with the Site Certificate.

(98) The certificate holder shall establish monitoring programs as required by permitting agencies and local governments, as required by the Site Certificate.

(99) For each monitoring program that it establishes, the certificate holder shall have quality assurance measures that are reviewed and approved by the department prior to commencement of construction or commencement of commercial operation, as specified in the Site Certificate.

(100) If the certificate holder becomes aware of a significant environmental change or impact attributable to the facility, the certificate holder shall submit to the department as soon as possible a written report identifying the issue and assessing the impact on the facility and any affected Site Certificate conditions.

 (101) HPP shall report any material violation of any condition of the Site Certificate by HPP or any of its contractors, subcontractors or agents to ODOE within 72 hours of discovery. HPP shall report to ODOE within 24 hours of discovery if HPP or any of its contractors, subcontractors or agents creates any condition by construction or operation of the facility that endangers the public health or safety.

Public Health & Safety: ORS 469.401(2)

(102) The Site Certificate holder shall design, construct, operate and retire the facility in accordance with all applicable statutes, rules, and ordinances.

(103) The pipelines shall be constructed in accordance with the requirements of the U.S. Department of Transportation as set forth in Title 49, Code of Federal Regulations, Part 192.

(104) The pipelines shall have mechanical structures that allow the pipeline to be sealed off, in the event of leakage, in a manner that will minimize the release of flammable materials. This is rebuttably presumed to be satisfied if the pipeline meets the requirements of Title 49, Code of Federal Regulations, Part 192.

(105) The Site Certificate holder shall develop a program, or assure the development of a program by the entity responsible for the pipelines, using the best available, practicable technology to monitor the proposed pipeline to ensure protection of public health and safety.

(106) The transmission line shall be designed so that alternating current electric fields shall not exceed 9 kV per meter at one meter above the ground surface in areas accessible to the public within the right of way.

43 (107) The transmission line shall be designed so that induced currents resulting from the transmission line and related facilities will be as low as reasonably achievable. The Site

Certificate holder shall develop and implement a program which shall provide reasonable assurance that all fences, gates, cattle guards, trailers, or other permanent objects or structures ("structures") that could become inadvertently charged with electricity shall be grounded through the life of the line. The Council interprets this requirement to apply to structures in existence when the line is constructed.

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(108) The transmission line shall be designed, constructed, and operated in a manner consistent with the National Electrical Safety Code, Section C2, 1993 Edition (American National Standards Institute), as well as the Rural Electrification Administration standards, where applicable.

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12 (109) HPP shall submit to the Department copies of all incident reports required under 49 CFR \$192.709 involving the related and supporting natural gas pipelines.

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17 Land Use

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(110) Following issuance of the Site Certificate and prior to commencement of construction, HPP shall apply for and obtain all appropriate land use approvals from the County, as listed in the Resolution of June 5, 1995 passed by the Umatilla County Board of Commissioners.

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(111) HPP shall file with the County Planning Department a landscaping plan for the power plant prior to issuance of a zoning permit. The landscaping plan shall be implemented and shall provide screening and visual buffering for the power plant and its parking and loading areas to the extent reasonably feasible.

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(112) Prior to issuance of a building permit, HPP shall file a site plan with the County which shall consist of a map showing the property lines, location of buildings, access roads and the names of the owner and developer of the site. The site plan shall also show that county ordinances related to parking and loading requirements, setbacks, signs and vision clearance are satisfied.

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(113) If the energy facility site will not be owned by Simplot,HPP shall file with the County an application for a minor partition of the energy facility site from remainder of the adjacent Simplot property in conformance with the information included in the ASC and file and record a final plat in accordance with County ordinances.

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39 (114) Prior to construction, HPP shall submit a plan acceptable to ODOE for responding to an 40 emergency at the Umatilla Army Depot. The plan shall be developed in consultation with the 41 Umatilla County Chemical Stockpile Emergency Preparedness Program.

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(115) HPP shall take reasonable steps to reduce or manage exposure to electromagnetic fields
 (EMF), consistent with EFSC findings presented in the "Report of the EMF Subcommittee to the

Energy Facility Siting Council," dated March 30, 1993. Prior to and during construction and 1 operation, HPP shall provide information to the public upon public request about EMF levels 2 associated with the power plant and related transmission lines. 3

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(116) HPP shall enter into an Irrevocable Consent Agreement (ICA) with the County by which HPP agrees to waive the right to oppose the formation of a Local Improvement District (LID) for 7 Co. Rd.No 1324.

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(117) The power plant will incorporate an on-site fire suppression system and will be constructed from fire retardant materials to the extent reasonably feasible. The power plant will incorporate spill prevention and containment designs for the storage of all hazardous materials. Fire suppression and hazardous material safety designs shall be established in consultation with the Hermiston Fire Department and the State Fire Marshall.

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15 (118) HPP shall provide adequate parking during construction.

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(119) HPP shall coordinate construction traffic with the county Public Works Department. In particular, a traffic plan shall be developed to coordinate peak construction traffic and peak potato harvest traffic.

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(120) The Site Certificate holder shall be responsible for any damages to County Road No. 1324 occurring as a result of construction or general operating activities.

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(121) If the 500 kV transmission line alternative is constructed, HPP shall minimize the visual impact of new transmission line structures in the City of Umatilla by the use of steel lattice and wood frame structures, where feasible. Where new single steel pole structures must be installed within the City of Umatilla, HPP shall use non glossy paint coverings in colors that will minimize visual impacts.

28 29 30

Noise

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(122) The Site Certificate holder shall design, select, locate, and/or orient components of the energy facility and provide needed noise controls required to comply with OAR 340-35-035 for new industrial sources located on previously unused industrial sites.

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- 36 (123) The Site Certificate holder shall conduct a noise analysis of the final design to insure that 37 the facility will meet DEQ regulations. Results of the analysis shall be submitted to the
- Department of Energy prior to issuing specifications for the equipment to be installed. The noise 38
- 39 study shall include a projection of noise to the noise sensitive properties identified along 40 Umatilla Meadows Road, the daycare facility, and residences west of the plant site west of
- 41 Highway 207 and south of the Umatilla River. The analysis shall include a listing of the major
- noise sources and expected sound levels from each source at each receiver. 42

1 (124) The Site Certificate holder shall conduct a survey at locations mentioned in Condition
124 above within two months of startup of the first turbine, again within two months of full
power operation, within two months of startup of the second turbine, and again within two
months of full power operation of both units. Sound measurements of power operation shall be at
operation within 3% of full power. Measurements shall be made at each location during
atmospheric conditions best for sound propagation. Sound monitoring shall not be conducted
when winds are in excess of 5 mph.

(125) The Site Certificate holder shall consult with Umatilla County and City of Umatilla and with neighbors around the energy facility to minimize the impacts of construction noise.

(126) The Site Certificate holder shall specify noise rated cooling towers.

14 (127) The Site Certificate holder shall design the HRSG and stack with resonant frequency above the lowest natural frequency of the exhaust from the gas turbine.

(128) The Site Certificate holder shall specify combustion air inlet silencers to limit noise levels to 46 dBA or less at 2900 feet.

Wetlands

(129) Prior to construction of the 500 kV transmission line, the Site Certificate holder shall investigate, and where practicable, shall implement opportunities to design the tangent poles of the transmission lines to be high enough to pull the line up so that vegetation maintenance activities in riparian habitats can be minimized or avoided.

(130) Construction and maintenance of the transmission lines and natural gas pipelines shall avoid all wetlands, except for the two wetland areas (wetlands 4 and 15) that will be unavoidably impacted as stated in the ASC (Exhibit H, p. 11f; Exhibit P, p. 11b) and wetland #13, which may be impacted by placement of the transmission line poles. The permanent impact at these wetlands shall be limited to the area occupied by natural gas pipeline (wetland #4) and the pole foundations and the earthen backfill placed at the base of the poles (wetlands #13 and 15).

(131) The following areas shall be flagged in the field prior to the start of construction to delineate the maximum extent of project disturbance:

i. the natural gas pipeline and transmission line routes through wetlands 4, 13, and 15;

ii. any natural gas pipeline, water supply line, and transmission line routes within 50 feet of the Umatilla River; and

43 iii. the transmission line crossings of the Umatilla River.

Ground disturbing activities in all areas shall be confined to a predefined construction right-ofway corridor. The corridor shall be no wider than is necessary for the safe and practicable completion of the construction tasks. Incidental activities (i.e., personal vehicle parking, sanitary facilities, temporary staging areas, etc.) shall be confined to a limited number of locations that shall be predetermined prior to commencement of construction activities.

(132) At wetland #13, all ditch crossings shall be culverted with adequate culverts to maintain year round flow.

(133) If pole placement avoids wetland #13 but is within 45 feet of it, HPP shall place a temporary construction fence and temporary silt barrier at the border of the wetland in the area of the pole to preclude incidental construction-related activity within the wetland and to minimize surface runoff from the construction site into the wetland.

(134) At wetland #15, construction access for pole placement shall be restricted to the driest period of the year (July through October); all waste and construction debris shall be removed from the wetland area and disposed of on uplands; and construction disturbance shall be restricted to the smallest area practicable.

(135) At wetland #4, a clay collar shall be placed on the down gradient side of the pipeline at the wetland boundary at each crossing; the pipeline shall be backfilled and stockpiled topsoil shall be replaced at the grade of the trench; and at the location of the outfall, fill material shall be minimized and stabilized to prevent erosion.

(136) Disturbed wetland and riparian areas shall be revegetated upon completion of construction with seed composition and vegetation species designed to enhance wetland and riparian habitat values and composed only of species commonly associated with wetland and riparian plant communities. Any wetland area that is lost due to project construction shall be compensated by restoring wetland area at a 1:1 wetland impact:wetland restoration ratio, or by creating wetland area at a 1:1.5 wetland impact:wetland creation ration, or by enhancing wetland area at a 1:3.0 wetland impact:wetland enhancement ratio such that there shall be no net loss of wetland habitat units or wetland habitat values. A wetland creation and revegetation plan shall be developed prior to construction in consultation with ODFW and DSL. The wetland creation and revegetation plan shall be submitted to ODOE for review and approval in consultation with ODFW and DSL. HPP shall comply with the approved plan.

- 37 (137) Measures taken to mitigate impacts to wetlands shall be monitored by the Site Certificate holder. Monitoring methodologies and schedules shall be developed in consultation with
- ODFW, ODA, and DSL. Monitoring shall be conducted for a minimum of seven (7) years
- 40 following the completion of the restoration efforts unless ODOE, in consultation with DSL and
- ODFW, approves a shorter monitoring period pursuant to its approval of a specific mitigation
- 42 monitoring plan. A mitigation monitoring plan shall be submitted to ODOE for review and
- 43 approval in consultation with ODFW and DSL, prior to the commencement of construction. If
- any mitigation measures are determined by the Site Certificate holder or ODFW to be

unsuccessful, corrective actions shall be taken by the Site Certificate holder after consultation with ODFW (as well as with ODOE and DSL if appropriate).

Carbon Dioxide Emissions Standard for Operation with Power Augmentation

Conditions 138 through 142 apply to duct burning and any other power augmentation or enhancement technologies ("power augmentation technologies") that increase the capacity and heat rate of the facility above the capacity and heat rate that it can achieve as a base-load gas plant on a new and clean basis, as reported pursuant to Condition 4(e). All provisions of these conditions are in addition to the requirements of Conditions 1 through 4. The monetary path payment requirement pursuant to Conditions 138 through142 are supplemental to the monetary path payment requirement pursuant to Conditions 1 through 4 and thus are referred to hereafter as the "supplemental monetary path payment requirement." [Amendment No. 4]

(138) Within 15 days after the effective date of the Final Order for Amendment Number Four, the site certificate holder shall submit to the State of Oregon through the Council a guaranty substantially in the form of Exhibit B-2(A), executed by Calpine Corporation. Exhibit B-2(A) shall include a guaranty for the amount of the supplemental monetary path payment requirement (in 2001 dollars) as determined by the calculations set forth in Condition 140. The site certificate holder shall base the calculations for the supplemental monetary path payment requirement on the estimated annual hours of operation and the estimated heat rate and capacity certified pursuant to Condition 141 below. The guaranty also shall accommodate adjustments to the amount of the guaranty in accordance with the terms of this site certificate pursuant to Conditions 140 and 142.

The site certificate holder shall maintain the supplemental monetary path payment guaranty for 30 years or until such time as the site certificate holder has disbursed the full amount of the supplemental monetary path payment requirement to the Oregon Climate Trust.

The calculation of 2001 dollars shall be made using the U.S. Gross Domestic Product Implicit Price Deflator, as published by the U.S. Department of Commerce, Bureau of Economic Analysis, or any successor agency (the "GDP-IPD index"). If at any time the GDP-IPD index is no longer published, the Council shall select a comparable calculation of 2001 dollars. The selection of a comparable calculation to the GDP-IPD index by the Council shall not require a site certificate amendment.

In lieu of the guaranty requirement set forth above, the site certificate holder may instead provide a letter of credit to the Oregon Climate Trust in the amount of the supplemental monetary path payment requirement as described above. Furthermore, in the event that Calpine Corporation's long-term unsecured debt is rated below "BB" or its equivalent by S&P and Moody's or their successors, the site certificate holder shall provide a letter of credit to the Oregon Climate Trust in the amount of supplemental monetary path payments required at that time. If the site certificate holder has provided a letter of credit and subsequent calculations pursuant to Conditions 140 and 142 demonstrate that the site certificate holder must increase its

supplemental monetary path payments, the site certificate holder shall increase the letter of credit sufficiently to meet the adjusted supplemental monetary path payment requirement within the time required by Condition 140.

The site certificate holder may reduce the amount of the letter of credit commensurate with payments it makes to the Oregon Climate Trust. The terms of the letter of credit and identity of the issuer shall be subject to approval by the Council, which approval shall not be unreasonably withheld.

The amount of the letter of credit shall increase by the percentage increase in the GDP-IPD index and shall be prorated within the year to the date of disbursement to the Oregon Climate Trust. The letter of credit shall not be subject to revocation before disbursement of the full supplemental monetary path payment requirement, including any adjusted supplemental monetary path payment requirement. [Amendment No. 4]

 (139) The site certificate holder shall disburse to the Oregon Climate Trust offset funds and contracting and selection funds as requested by the Oregon Climate Trust up to the supplemental monetary path payment requirement (in 2001 dollars) as determined by the calculations set forth in Condition 140. Disbursements shall be made in response to requests from the Oregon Climate Trust in accordance with the requirements of OAR 345-024-0710. [Amendment No. 4]

(140) The site certificate holder shall submit all supplemental monetary path payment requirement calculations to the Oregon Office of Energy for verification. All calculations shall be made assuming that no steam is supplied for cogeneration. The site certificate holder shall use the estimated annual hours of operation for the power augmentation technologies and the contracted design parameters for capacity and heat rate for the facility that it reports pursuant to Condition 141 to calculate the estimated supplemental monetary path payment requirement. The site certificate holder shall use the Year One Capacity and Year One Heat Rate that it reports for the facility pursuant to Condition 142 to calculate whether it owes additional supplemental monetary path payments following the Year One Test and in subsequent five-year periods, pursuant to subsections (c) and (d).

(a) The net carbon dioxide emissions rate for incremental emissions for the facility operating with power augmentation technologies shall not exceed 0.70 pounds of carbon dioxide per kilowatt hour of net electric power output, with carbon dioxide emissions and net electric power output measured on a new and clean basis, subject to any Council modification pursuant to Condition 141.

(b) When the site certificate holder submits the Year One Test report required in Condition 142, it shall increase its letter of credit, if one is in effect, for the supplemental monetary path payment requirement if the calculation using reported data shows that the adjusted supplemental monetary path payment requirement exceeds the supplemental monetary path payment requirement for which the site certificate holder had provided a guaranty or letter of credit, pursuant to Conditions 138 and 141.

- (A) The site certificate holder shall make the appropriate calculations and increase its letter of credit, if one is in effect, within 30 days after filing its Year One Test report with the Council.
- (B) In no case shall the site certificate holder diminish the guaranty or letter of credit it provided, or receive a refund from the Oregon Climate Trust, based on the calculations made using the Year One Capacity and the Year One Heat Rate or payments required by calculations pursuant to subsections (c) and (d).
- (c) Each five years after commencing commercial operation of the facility ("five-year reporting period"), the site certificate holder shall report to the Office of Energy the annual average hours the facility operated with power augmentation technologies during that five-year reporting period, pursuant to OAR 345-024-0590(6). The site certificate holder shall submit five-year reports to the Office of Energy within 30 days of the anniversary date of beginning commercial operation.
- (d) If the Office of Energy determines that the facility exceeds the projected incremental net total carbon dioxide emissions, prorated for five years, during any five-year reporting period described in subsection (c), the site certificate holder shall offset excess emissions for the specific reporting period according to subsection (A) and shall offset the estimated future excess emissions according to subsection (B) pursuant to OAR 345-024-0600(4). The certificate holder shall offset excess emissions using the monetary path as described in OAR 345-024-0710, except that contracting and selecting funds shall equal 20 percent of the value of any additional offset funds up to the first \$250,000 (in 2001 dollars) and 4.286 percent of the value of any offset funds in excess of \$250,000 (in 2001 dollars). The site certificate holder shall make the funds available to the Oregon Climate Trust within 30 days after notification by the Office of Energy of the amount it owes.
 - (A) In determining the excess carbon dioxide emissions that the site certificate holder must offset for a five-year period, the Office of Energy shall apply OAR 345-024-0600(4)(a). The certificate holder shall pay for the excess emissions at \$0.57 per ton of carbon dioxide emission (in 2001 dollars). The Office of Energy shall notify the certificate holder of the amount of payment required, using the monetary path, to offset excess emissions.
 - (B) The Office of Energy shall calculate estimated future excess emissions and notify the certificate holder of the amount of payment required, using the monetary path, to offset them. To estimate excess emissions for the remaining period of the deemed 30-year life of the facility, the Office of Energy shall use the parameters specified in OAR 345-024-0600(4)(b). The certificate holder shall pay for the estimated excess emissions at \$0.57 per ton of carbon dioxide emissions (in 2001) dollars. [Amendment No. 4]

(141) Within 15 days of the effective date of this amendment, the site certificate holder shall submit written design information to the Council sufficient to verify the facility's designed new and clean heat rate and its nominal electric generating capacity at average annual site conditions when operating with power augmentation technologies at full power. The site certificate holder shall also specify the estimated annual average hours that it will operate the power augmentation technologies. Based on such written design and operational information, pursuant to OAR 345-024-0590(1), the Council may approve, upon a request by the site certificate holder, modified parameters for testing the power augmentation technologies on a new and clean basis in a manner that accommodates technical limitations of the equipment. The Council's approval of modified testing parameters for power augmentation technologies shall not require a site certificate amendment. [Amendment No. 4]

(142) Within the first 12 months of commercial operation, the site certificate holder shall conduct a test at full power (Year One Test) of the actual heat rate at higher heating value (Year One Heat Rate) and nominal generating capacity (Year One Capacity) for the facility operating with power augmentation technologies, without degradation, assuming no steam is supplied for cogeneration, with the results adjusted for the average annual site conditions for temperature, barometric pressure and relative humidity and use of alternative fuels, and using a rate of 117 pounds of carbon dioxide per million Btu of natural gas fuel. The full power test shall be 100 hours' duration unless the Council has approved a different duration pursuant to Condition 141. Within two months of completing the Year One Test for the facility operating with power augmentation technologies, the site certificate holder shall provide to the Council a report of the results of the test. [Amendment No. 4]

IV. <u>AMENDMENT OF SITE CERTIFICATION AGREEMENT</u>

HPP and EFSC recognize that, because of the length of time that may pass between the date on which this Agreement is executed and the date on which construction will commence, and that will pass between the time construction is commenced and the energy facility is retired, it may be necessary to amend this Agreement.

Amendments shall be made in accordance with EFSC rules applicable and in effect at the time the amendment is sought.

V. SUCCESSORS AND ASSIGNS

No Site Certificate, or any portion thereof, may be transferred, assigned, or disposed of in any other manner, directly or indirectly, except in compliance with OAR 345-27-100.

VI. SEVERABILITY AND CONSTRUCTION

Т		if any provision of this agreement and certificate is declared by a court to be megal of in						
2	conflict with any law, the validity of the remaining terms and conditions shall not be affected,							
3	and the rights and obligations of the parties shall be construed and enforced as if the agreement							
4		_		-				
5	and certificate did not contain the particular provision held to be invalid. In the event of a conflict between the conditions contained in the Site Certificate and EFSC's Final Order, the							
6	conditions contained in this Site Certificate shall control.							
7	Condit	10115 C	ontained in this Site Certificate sir	an control.				
	X7TTT	CO	VEDNING LAW AND EODI	CN AT				
8	VIII.	<u>GO</u>	<u>VERNING LAW AND FORU</u>	<u>M</u>				
9								
10		A.	This agreement shall be govern	ed by the laws of the State of Oregon.				
11								
12		В.	• •	sing out of this agreement shall be conducted in an				
13			appropriate forum in Oregon.					
14								
15		IN V	VITNESS WHEREOF , this Site	Certificate has been executed by the State of				
16		Oreg	gon, acting by and through its Ener	gy Facility Siting Council, and Hermiston Power				
17		_	nership.					
18			1					
19		ENF	ERGY FACILITY SITING COUN	CIL				
20				O-12				
21								
22								
23		R _v		Date: May 4, 2001				
24		Dy	en H. Green, Chair	Date. May 4, 2001				
		Kare	ii H. Green, Chan					
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26		CAI	DIVIDENTAL DIC					
27		CAL	LPINE HERMISTON, INC.					
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31		By:_		Date:				
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36		CPN	HERMISTON, INC.					
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1 Second Amended Exhibit A on file.

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VIII. GOVERNING LAW AND FORUM A. This agreement shall be governed by the laws of the State of Oregon. B. Any litigation or arbitration arising out of this agreement shall be conducted in an appropriate forum in Oregon. IN WITNESS WHEREOF, this Site Certificate has been executed by the State of Oregon, acting by and through its Energy Facility Siting Council, and Hermiston Power Partnership. ENERGY FACILITY SITING COUNCIL By: Kar 7/. Sur_ Date: May 4, 2001 Karen H. Green, Chair CALPINE HERMISTON, INC. By: DL Keta Date: May 9,2001 2.4 (Printed) Sewier Vice President CPN HERMISTON, INC. By: D L Kete Date: May 9, 2001 (Printed) Sewick Vice President Second Amended Exhibit A on file.

1	EXHIBIT B-2(A
2	AMENDED GUARANTY
3	
4	This GUARANTY, dated as of, 2001, (this "Guaranty") is
5	executed and delivered by Calpine Corporation, a Delaware corporation ("Guarantor"), in
6	favor the Oregon Energy Facility Siting Council ("EFSC").
7	
8	Recitals
9	
10	A. The Guarantor has, through its wholly owned subsidiaries, formed
11	Hermiston Power Partnership, an Oregon general partnership ("HPP"), for the purpose of
12	developing, constructing, owning and operating a nominal 546 MW (net) natural gas-
13	fired combined-cycle combustion turbine cogeneration plant and related and supporting
14	facilities (the "Project") to be located near Hermiston, Oregon.
15	
16	B. HPP previously filed an application with EFSC for a site certificate
17	authorizing construction and operation of the Project in accordance with ORS Chapter
18	469 and the rules and regulations of EFSC promulgated thereunder.
19	
20	C. On March 19, 1998, EFSC and HPP entered into an amended site
21	certificate for the Project issued pursuant to HPP's application therefor. The amended
22	site certificate requires HPP, prior to the commencement of construction of the Project, to
23	obtain security, satisfactory to EFSC, in an amount sufficient to satisfy HPP's obligations
24	under ORS 469.503(2)(d) relating to the monetary path payment requirement, which shall
25	include estimated offset funds and selection and contracting funds and any increased
26	amounts of those funds required to meet the monetary path payment requirement as
27	calculated using data from the facility when it is tested on a new and clean basis pursuant
28	to ORS 469.503(2)(e)(G). Effective July 28, 2001, Calpine provided EFSC with a
29	guaranty in fulfillment of this obligation.
30	
31	D. On May 4, 2001, EFSC and HPP entered into a third amended site
32	certificate authorizing HPP to install duct burners in the Project and requiring HPP to
33	obtain security in an amount (the "supplemental monetary path payment") necessary to
34	meet the applicable carbon dioxide emissions standard, as is set forth in conditions
35	138-142 of the third amended site certificate.
36	
37	E. To induce EFSC to amend the site certificate for the Project, and in
38	consideration of EFSC's amending such site certificate, the Guarantor desires to execute
39	and deliver this Amended Guaranty in favor of EFSC to enable HPP to satisfy conditions
40	1-4 and 138-142 in the site certificate for the Project described above relating to HPP's
41	obligations under the applicable carbon dioxide emissions standards.
42	
43	Accordingly, the Guarantor hereby covenants and agrees with EFSC as follows:
44	
45	SECTION 1. The Guarantor hereby irrevocably, absolutely and unconditionally
46	under any and all circumstances guarantees to EFSC the punctual and full performance

and payment of each and every obligation of HPP now existing or which may hereafter arise under site certificate conditions 1-4 as in effect on the date hereof relating to the payment of the monetary path requirement (in 1998 dollars calculated using the index referred to in the amended site certificate for the Project relating to the calculation of the monetary path payment requirement) and site certificate conditions 138-142 as in effect as of the date hereof relating to the supplemental monetary path payment requirement (in 2001 dollars calculated using the index referred to in the third amended site certificate for the Project relating to the calculation of the supplemental monetary path payment requirement) (collectively, the "Guaranteed Obligations"), as may be increased by calculations using data provided in the test of the facility on a new and clean basis pursuant to those site certificate conditions, and agrees that, if for any reason whatsoever, HPP shall fail or be unable duly, punctually and fully to perform or pay the Guaranteed Obligations, the Guarantor shall forthwith perform or pay the Guaranteed Obligations, or cause the Guaranteed Obligations to be performed or paid, without regard to any exercise or non-exercise by EFSC of any right, power or privilege under or in respect of the Guaranteed Obligations.

SECTION 2. This Guaranty shall be direct, immediate and primary and shall be a guarantee of payment and performance and not of collection, and is not conditioned or contingent upon any requirement that EFSC proceed against HPP or any other person or pursue any other right or remedy in EFSC's power before proceeding against the Guarantor or upon any other event, contingency or circumstance whatsoever.

SECTION 3. The Guarantor hereby unconditionally, absolutely and irrevocably agrees to hold EFSC harmless and to indemnify EFSC from and against any and all claims costs, liabilities and expenses of any nature whatsoever, including reasonable attorneys' fees, resulting from, arising out of or relating to any failure by HPP to perform the Guaranteed Obligations when due or any failure by the Guarantor to perform any of their obligations hereunder when due and in accordance with the terms hereof.

SECTION 4. To the fullest extent permitted by law, the obligations of the Guarantor under this Guaranty shall be absolute, irrevocable and unconditional, shall remain in full force and effect, and shall not be affected by or subject to any reduction, termination or other impairment by set-off, deduction, counterclaim, recoupment, interruption or otherwise, and the Guarantor shall have no right to terminate this Guaranty or to be released, relieved or discharged, in whole or in part, from their payment or performance obligations referred to in this Guaranty for any reason whatsoever, including without limitation, any one or more of the following:

 (a) any amendment, supplement or modification to, waiver of, consent to or departure from, or failure to exercise any right, remedy, power or privilege under or in respect of, the Guaranteed Obligations or any other agreement or instrument relating thereto;

(b) any insolvency, bankruptcy, reorganization, dissolution or liquidation of, or any similar occurrence with respect to, or cessation of existence of, or

change of ownership of, any person, or any rejection of any of the Guaranteed Obligations in connection with any Proceeding (as defined in Section 5 below) or any disallowance of all or any portion of any claim by EFSC in connection with any Proceeding;

(c) the failure to create, preserve, validate, perfect or protect any security interest granted to, or in favor of, any person;

(d) any substitution, modification, exchange, release, settlement or compromise of any security or collateral for or guarantee of any of the Guaranteed Obligations, or failure to apply such security or collateral or failure to enforce such guarantee; or

(e) any other event or circumstance whatsoever which might otherwise constitute a legal or equitable discharge of a surety or guarantor, it being the intent of the Guarantor that its obligations under this Guaranty shall be irrevocable, absolute and unconditional under any and all circumstances.

This Guaranty and the obligations of the Guarantor hereunder shall continue to be effective or be automatically reinstated, as the case may be, if at any time any payment by or on behalf of HPP is rescinded or must otherwise be restored by EFSC for any reason, including, but not limited to, as a result of any Proceeding with respect to HPP or any other person, as though such payment had not been made.

SECTION 5. The Guaranteed Obligations shall include, without limitation, interest accruing following the commencement by or against HPP of any case or proceeding under any law relating to bankruptcy, insolvency, reorganization, winding-up, liquidation, dissolution or composition or adjustment of debt (a "Proceeding"), whether or not allowed as a claim in any such Proceeding.

SECTION 6. To the fullest extent permitted by law, the Guarantor hereby waives (a) all set-offs, counterclaims, presentments, demands for performance, notices of adverse change in the financial condition of HPP or of any other fact that might increase Guarantor's risk hereunder, notices of nonperformance, protests, notice of any of the matters referred to in Section 4, notices of presentation for payment, notices of demand for performance, notices of protest, notices of dishonor, notice of any waivers or indulgences or extensions, notice of the creation or existence of any Guaranteed Obligations, notices of every kind which may be required to be given by any statute or rule of law and notice of acceptance of this Guaranty; (b) diligence, presentment and demand of payment, filing of claims with a court in connection with any Proceeding, protest or notice with respect to the Guaranteed Obligations and all demands whatsoever; (c) any and all statutes of limitations, all laws providing for the exemption of property from execution or for valuation and appraisal upon foreclosure; and (d) any requirement that any action or proceeding be brought against HPP or any other person, or any requirement that any person exhaust any right, power or remedy or proceed against any other person, prior to any action against the Guarantor under the terms thereof; (e) any

defense arising by reason of any disability or other defense of HPP or by reason of cessation from any cause whatsoever of the liability of HPP with respect to the Guaranteed Obligations (other than the defense that the Guaranteed Obligations have been paid or performed in their entirety); (f) any right to assert against EFSC any defense (legal or equitable), set-off against counterclaims, or claim which the Guarantor may now or at any time hereafter claim against HPP or any other party liable to EFSC.

SECTION 7. The Guarantor consents and agrees that, without notice to or by the Guarantor and without affecting or impairing the obligations of the Guarantor hereunder, EFSC may, by action or inaction:

(a) compromise, settle, extend the duration or the time for the payment or performance of, or discharge the performance of, or otherwise not enforce the Guaranteed Obligations;

 (b) release or substitute the Guarantor or any other guarantor, if any, of the Guaranteed Obligations, or enforce, exchange, release, or waive any security for the Guaranteed Obligations or any other guaranty of the Guaranteed Obligations, or any portion thereof.

SECTION 8. Until all of the Guaranteed Obligations have been fully and indefeasibly discharged, to the full extent necessary to prevent any payments or other transfers from HPP or the Guarantor to EFSC from being made for the benefit of an insider creditor in determining whether such payments or other transfers constitute avoidable transfers or preferences under Section 547 of the Bankruptcy Code, the Guarantor hereby waives (a) any right of subrogation or reimbursement Guarantor has or may have as against HPP with respect to the Guaranteed Obligations; (b) any right to proceed against HPP, now or hereafter, for contribution, indemnity, reimbursement and any other suretyship rights and claims, whether direct or indirect, liquidated or contingent, whether arising under express or implied contract or by operation of law, which Guarantor may now have or hereafter have as against HPP with respect to the Guaranteed Obligations, and (c) any rights to recourse to or with respect to any asset of HPP.

SECTION 9. This Guaranty is a continuing guaranty, shall apply to all Guaranteed Obligations whenever arising, shall be binding upon the Guarantor and its respective successors and shall inure to the benefit of and be enforceable by EFSC and its successors.

SECTION 10. All notices to be served under this Guaranty shall be in writing and delivered personally or mailed by certified mail, postage prepaid and return receipt requested, or by telegram or telecopier addressed as follows:

If to the Guarantor:

Calpine Corporation 50 West San Fernando Street San Jose, California 95113 Attention of Chief Executive Officer (408) 995-5115 (408) 995-0505 If to EFSC: **Energy Facility Siting Council** 625 Marion Street NE, Suite 1 Salem, Oregon 97301-3742 Attention of Chair (503) 378-6469 (503) 373-7806 [fax]

or at such other address as may from time to time be designated in writing in a notice delivered as aforesaid. Notice given by personal delivery shall be effective upon actual receipt. Notice given by certified mail, postage prepaid and return receipt requested shall be effective three days after the date of mailing. Notice given by telegram or telecopier shall be effective upon actual receipt if received during the recipient's normal business hours, or at the beginning of the recipient's next business day after receipt if not received during the recipient's normal business hours. All notices by telegram or telecopies shall be confirmed promptly after transmission in writing by certified mail or personal delivery.

SECTION 11. This Guaranty shall in all respect be governed by, and construed in accordance with, the law of the State of Oregon without regard to principles of conflicts of laws.

SECTION 12. The Guarantor represents and warrants to EFSC that: (a) the Guarantor is a corporation duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation; (b) the execution and delivery of this Guaranty and its performance have been duly authorized by all necessary corporate action on the part of the Guarantor and do not require any other corporate actions or proceedings or any stockholder approval or consent of any trustee or holder of any indebtedness of the Guarantor; and (c) this Guaranty has been duly executed and delivered by the Guarantor and constitutes the legal, valid and binding obligation of the Guarantor, enforceable against the Guarantor in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws relating to or affecting the enforcement of creditors' rights generally or by general principles of equity, regardless of whether such enforceability is considered in a proceeding in equity or at law.

SECTION 13. The obligations and liabilities of the Guarantor under this Guaranty shall terminate (subject to automatic reinstatement under Section 4) on the date on which the Guaranteed Obligations have been paid and performed in their entirety (in 1998 dollars for the monetary path payment and 2001 dollars for the supplemental monetary path payment calculated using the indices referred to in the site certificate for the Project relating to the calculation of these requirements), but not before HPP has met any additional obligations that it may incur based on calculations of the monetary path payment requirement and supplemental monetary path payment requirement using data from the facility when it is tested on a new and clean basis pursuant to site certificate conditions 1-4 and 138-142.

SECTION 14. If any provision of this Guaranty shall for any reason be held invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision of this Guaranty, and this Guaranty shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein, but only to the extent of its invalidity, illegality or unenforceability.

SECTION 15. (a) The Guarantor hereby irrevocably agrees that any legal action or proceeding against it arising out of or relating to this Guaranty or the Guaranteed Obligations may be brought in any Oregon State or Federal court in the City of Salem or the City of Portland in the State of Oregon and hereby irrevocably submits generally and unconditionally to the non-exclusive jurisdiction of such courts.

(b) The Guarantor hereby unconditionally appoints Stoel Rives, LLP, as its authorized agent to receive and acknowledge on its behalf service of any writ, summons, order, judgment or other notice of legal process in Oregon and agrees that any writ, summons, order, judgment or other notice of legal process shall be sufficiently served on it if delivered to such agent for service at its address in Portland, Oregon whether or not such agent gives notice thereof to the Guarantor. The Guarantor agrees that it will at all times maintain an agent for service in Oregon with respect to its obligations under this Section 15, and in the event that for any reason the agent named above (or its successor) shall no longer serve as agent of any Guarantor to receive service of process as aforesaid, the Guarantor shall promptly appoint a successor so to serve and shall notify EFSC thereof.

(c) Nothing in this Section 15 shall limit the right of EFSC to commence any legal action or proceeding or otherwise proceed against the Guarantor in any other jurisdiction or to serve process in any manner permitted by applicable law nor shall the taking of proceedings in any one or more jurisdictions preclude the taking of proceedings in any other jurisdiction whether concurrently or not.

SECTION 16. Subordination. The Guarantor hereby agrees that any and all present and future indebtedness of HPP owing to the Guarantor is postponed in favor of and subordinated to, full and final payment and performance of the Guaranteed Obligations in their entirety. In this regard, no payment of any kind whatsoever shall be

2	unpaid or unperformed.				
3	unpaid of unperformed.				
4	SECTION 17. Attorneys' Fees and Costs. The Guarantor agrees to pay, on				
5	demand, all reasonable attorneys' fees and all other costs and expenses which may be				
6	incurred by EFSC in the enforcement of this Guaranty or in any way arising out of, or				
7	consequential to the protection, assertion, or enforcement of the Guaranteed Obligations				
8	whether or not suit is brought.				
9	whether of not suit is brought.				
10	SECTION 18. Execution and Counterparts. This Guaranty may be executed in				
11	several counterparts, all of which when taken together shall constitute one Guaranty				
12	binding on all parties, notwithstanding that all parties are not signatories to the same				
13	counterpart. Each copy of the Guaranty so executed shall constitute an original.				
14	counterpart. Each copy of the Guaranty so executed shart constitute an original.				
15	IN WITNESS WHEREOF, the Guarantor has caused this Guaranty to be				
16	executed and delivered by its duly authorized officer as of the date first above written.				
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18					
19	CALPINE CORORATION				
20	a Delaware corporation				
21	r				
22					
23					
24					
25	By:				
26	Name:				
27	Title:				
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30	ACCEPTED:				
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32	OREGON ENERGY FACILITY SITTING COUNCIL				
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