

1 **BEFORE THE**  
2 **PUBLIC UTILITY COMMISSION OF OREGON**

3 **Docket No. UM 1121**

4 **Direct Testimony of Ken Beeson**

5 **On behalf of the Eugene Water & Electric Board**

6 **Q: PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

7 A. My name is Ken Beeson, and I am the Energy Resource Projects Manager for the  
8 Eugene Water & Electric Board (“EWEB”). My business address is 500 East 4<sup>th</sup>  
9 Avenue, Eugene Oregon.

10 **Q. PLEASE DESCRIBE YOUR QUALIFICATIONS AND EXPERIENCE.**

11 A. My Statement of Qualifications and Experience is attached to this testimony as  
12 exhibit EWEB/101.

13 **Q: WHAT IS EWEB’S INTEREST IN THIS PROCEEDING?**

14 A: As described in greater detail below, EWEB is a co-owner and co-licensee with  
15 PGE of the Trojan Nuclear Project and the Trojan independent spent fuel storage  
16 installation (collectively, “Trojan”). Activities relating to decommissioning and  
17 spent fuel responsibilities at Trojan are ongoing and will continue for many years  
18 into the future. PGE, as majority owner, must maintain sufficient financial  
19 resources, on both a long-term and short-term cash flow basis, to meet its Trojan  
20 obligations. This proceeding directly addresses a proposal for a change in  
21 ownership and control of PGE and therefore could impact the financial resources  
22 available to PGE to meet its Trojan obligations.

23

1 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

2 A. Based on the record developed to date, EWEB takes no position either in favor of,  
3 or in opposition to, the *Application of Oregon Electric Utility Company, LLC, Et*  
4 *Al., to Acquire Portland General Electric Company* filed on March 8, 2004 in this  
5 proceeding (“Application”). EWEB believes, however, that the Commission  
6 should consider PGE’s ongoing obligations with respect to Trojan in determining  
7 whether approval of the application will serve the public interest. It is EWEB’s  
8 position that the public interest will not be served if the proposed acquisition  
9 increases the probability that PGE or Oregon Electric Utility Company (“OEUC”),  
10 as the owner of PGE and an entity capable of exercising substantial influence over  
11 the policies and actions of PGE, cannot meet its financial obligations with respect  
12 to Trojan. My testimony about the proposed acquisition will be confined to this  
13 issue.

14 **Q: WHAT IS THE CONTRACTUAL RELATIONSHIP BETWEEN THE**  
15 **TROJAN CO-OWNERS?**

16 A: On October 5, 1970, EWEB, PGE and Pacific Power & Light Co., as a predecessor  
17 to PacifiCorp, a wholly owned subsidiary of Scottish Power PLC, (“Pacific”),  
18 entered into an “Agreement for Construction, Ownership and Operation of the  
19 Trojan Nuclear Plant” (“Ownership Agreement”). A copy of the Ownership  
20 Agreement is attached to this testimony as Exhibit EWEB/102. PGE is the  
21 majority owner and lead operating entity of Trojan, holding a sixty seven and one  
22 half percent (67.5%) ownership share in Trojan. EWEB holds a thirty percent  
23 (30%) ownership share in Trojan. Pacific holds a two and one half percent (2.5%)

1 ownership share in Trojan. Under the Ownership Agreement, PGE is responsible  
2 for operating and maintaining Trojan in compliance with applicable Federal and  
3 State law and “Prudent Utility Practice” (as defined in the Ownership Agreement).

4 **Q: PLEASE PROVIDE A BRIEF HISTORY OF TROJAN.**

5 A: The federal Nuclear Regulatory Commission (“NRC”) issued to the co-owners an  
6 operating license for Trojan on November 21, 1975. Trojan began commercial  
7 operation on March 20, 1976. It was licensed to operate until 2011. Trojan  
8 operated until November 9, 1992, when a leak in a steam generator was detected  
9 and forced a shutdown of the plant. PGE announced the permanent shutdown of  
10 Trojan in January, 1993. The nuclear fuel was then transferred to an on-site spent  
11 fuel pool. On May 5, 1993, the NRC amended the Trojan operating license to a  
12 possession-only license. On January 26, 1995, PGE submitted a decommissioning  
13 plan for Trojan to the NRC. The decommissioning plan proposed decontamination  
14 and dismantlement of the Trojan plant, the licensing and construction of an  
15 independent spent fuel storage installation (“ISFSI”) and transfer of the spent  
16 nuclear fuel to the ISFSI. The decommissioning plan was approved by the NRC on  
17 April 15, 1996. The transfer of spent nuclear fuel from the spent fuel pool to the  
18 Trojan ISFSI was completed in September, 2003. Radiological decommissioning  
19 in accordance with the decommissioning plan is currently ongoing at Trojan and is  
20 expected to be completed by early 2005. The Trojan decommissioning plan calls  
21 for the spent fuel to be transferred from the ISFSI to a permanent repository by  
22 2018. No such permanent repository currently exists.

23

1 **Q: WHO IS RESPONSIBLE FOR PAYING TROJAN'S COSTS OF**  
2 **OPERATION?**

3 A: Each Trojan co-owner is responsible for paying a share, equal to its percentage  
4 ownership interest, of all "Costs of Operation" as defined under the Ownership  
5 Agreement. Thus, PGE is obligated to pay 67.5%, EWEB 30% and Pacific 2.5%.

6 **Q: WHO IS RESPONSIBLE FOR PAYING DECOMMISSIONING COSTS**  
7 **ASSOCIATED WITH TROJAN?**

8 A: The Ownership Agreement provides that each owner shall severally bear its  
9 ownership share of all Trojan obligations. Each co-owner is, therefore, responsible  
10 for assuring the availability of funds necessary to pay its ownership share of the  
11 costs of implementing the Trojan decommissioning plan, including the operation  
12 and subsequent decommissioning of the ISFSI. The Ownership Agreement also  
13 provides for settling all accounts following decommissioning of the project. If the  
14 total costs of Trojan decommissioning exceed the available funds contributed by  
15 the owners pursuant to the Ownership Agreement, then each co-owner will be  
16 responsible to pay its ownership share of the excess costs.

17 **Q: WHAT IS THE ESTIMATED COST OF IMPLEMENTING THE TROJAN**  
18 **DECOMMISSIONING PLAN?**

19 A: According to the updated decommissioning plan filed by PGE with the NRC in  
20 March 2003, the total cost, start to finish, to implement the decommissioning plan  
21 for Trojan, was estimated to be \$429,719,000 (in 1997 dollars). The estimated  
22 remaining cost of implementing the Trojan decommissioning plan as of January 1,  
23 2003, was \$187,024,000. See Annual Report of the Status of Decommissioning

1 Funding for the Trojan Nuclear Plant in Accordance with 10 CFR 50.75(f)(1),  
2 submitted to the U.S. Nuclear Regulatory Commission by PGE on March 27, 2003,  
3 attached as Exhibit EWEB/103.

4 **Q: HOW IS PGE CURRENTLY FUNDING ITS SHARE OF THE TROJAN**  
5 **DECOMMISSIONING COSTS?**

6 A: The Commission currently allows PGE to collect \$14,041,000 annually through  
7 2011 from its retail ratepayers to fund Trojan decommissioning costs. *See*  
8 *generally* Oregon Public Utility Commission Order No. 95-322 (March 29, 1995);  
9 Oregon Public Utility Commission Order No. 00-601 (Sept. 29, 2000). This money  
10 is deposited in an external trust fund that is administered in accordance with NRC  
11 regulations (the “PGE Ratebased Decommissioning Fund”). Money in the PGE  
12 Ratebased Decommissioning Fund can only be used for PGE activities undertaken  
13 pursuant to the Trojan decommissioning plan.

14 **Q: COULD PGE INCUR DECOMMISSIONING COSTS IN EXCESS OF**  
15 **THOSE ANTICIPATED IN THE DECOMMISSIONING PLAN?**

16 A: Yes. The Commission has recognized that there is a great deal of uncertainty in the  
17 area of decommissioning a nuclear facility. Oregon Public Utility Commission  
18 Order No. 95-322, p. 61 (March 29, 1995). In its most recent form 10-K  
19 disclosure, PGE itself admits that estimating the cost of decommissioning activities  
20 over a period extending to 2019 is inherently subjective and complex. Portland  
21 General Electric, *Form 10-K: Annual Report Pursuant to Section 13 or 15(d) of the*  
22 *Securities Exchange Act of 1934, for the fiscal year ending December 31, 2003,*  
23 filed with the Securities & Exchange Commission March 22, 2004, *available at <*

1 <http://www.sec.gov/Archives/edgar/data/784977/000078497704000008/final10k.pdf>

2 f>. Page 42 of the PGE 10-K is attached as Exhibit EWEB/108.

3 **Q: UNDER WHAT CIRCUMSTANCES COULD PGE INCUR**  
4 **DECOMMISSIONING COSTS IN EXCESS OF THOSE ANTICIPATED IN**  
5 **THE DECOMMISSIONING PLAN?**

6 A: PGE may incur unexpected costs associated with Trojan if the NRC amends the  
7 regulations applicable to nuclear facility decommissioning or spent fuel  
8 management. An unexpected incident involving spent fuel stored in the ISFI may  
9 also increase Trojan costs to the extent not covered by insurance. PGE may also  
10 incur additional unexpected costs if a permanent spent fuel repository is not  
11 completed and available by 2018 as contemplated by the decommissioning plan  
12 and PGE is forced to continue storage on-site in the ISFSI.

13 **Q: WHAT GENERAL SOURCES OF FUNDS ARE AVAILABLE TO PGE FOR**  
14 **PAYMENT OF EXPECTED AND UNEXPECTED DECOMMISSIONING**  
15 **COSTS?**

16 A: Several sources of funds are available for payment of expected and unexpected  
17 decommissioning costs, including:

- 18 • The PGE Ratebased Decommissioning Fund is available to pay expected  
19 costs incurred consistent with the Trojan decommissioning plan. The PGE  
20 Ratebased Decommissioning Fund balance was \$27,941,000 as of  
21 December 31, 2002. See EWEB/103, p. 5.
- 22 • Insurance procured in accordance with NRC financial protection  
23 requirements. PGE currently maintains \$100 million in coverage. On

1 February 28, 2003, PGE requested that the NRC reduce “the primary  
2 financial protection requirement currently applied to the Trojan Nuclear  
3 Plant from \$100 million to \$25 million.” See Request for Further  
4 Exemption from the Financial Protection Requirements of 10 CFR  
5 140.11(a)(4) and Related Amendment to Indemnity Agreement No. B-78,  
6 submitted to the U.S. Nuclear Regulatory Commission by PGE on February  
7 28, 2003, attached as Exhibit EWEB/104.

- 8 • Cash reserves. PGE’s cash reserves totaled \$171 million as of March 31,  
9 2004. *See* Standard & Poor’s Research: Summary: Portland General  
10 Electric Co., published July 7, 2004, attached as Exhibit EWEB/105.
- 11 • Access to short and long term debt and equity markets. PGE’s senior  
12 secured bond ratings have undergone significant downward changes since  
13 2001 as a result of various events including an announcement that PGE  
14 would be acquired by NW Natural, the bankruptcy of Enron, continued  
15 FERC investigations affecting western power market participants and the  
16 eventual announcement of the termination of the PGE sale to NW Natural.  
17 *See* PGE Response to EWEB Data Request 24, dated June 25, 2004,  
18 attached as Exhibit EWEB/106.

19 **Q: COULD THE TERMS OF THE PROPOSED ACQUISITION NEGATIVELY**  
20 **IMPACT THE AMOUNT OF FUNDS AVAILABLE TO PAY**  
21 **UNEXPECTED DECOMMISSIONING COSTS?**

22 **A:** Yes. EWEB is concerned that certain terms of the proposed acquisition will  
23 negatively impact the amount of funds available to pay unexpected Trojan

1 decommissioning costs. EWEB is specifically concerned that the acquisition will  
2 result in a heavily leveraged consolidated balance sheet of PGE and OEUC. *See*  
3 EWEB/105. Under the terms of the proposed acquisition \$240 million in cash will  
4 be used to fund the purchase price through a dividend payment to OEUC. OEUC  
5 proposes to maintain only \$10 million in cash on hand which is significantly lower  
6 than the cash reserves currently maintained by PGE. Depletion of cash reserves  
7 will likely raise the potential need for additional credit facilities to fund any  
8 unexpected decommissioning costs. At least one credit rating agency, however,  
9 has put PGE's already eroded corporate credit rating and all issue ratings on  
10 CreditWatch with negative implications as a result of the proposed acquisition by  
11 OEUC. *See* EWEB/105. OEUC proposes to supplant the cash reserves with  
12 certain revolving credit facilities at closing. These revolving credit facilities are  
13 expected, however, to include final terms allowing termination of the facility and  
14 cause acceleration of the debt repayment obligation if OEUC or PGE experiences  
15 financial difficulty and an event of default such as bankruptcy occurs. *See*  
16 Applicant's Response to Request EWEB/OEUC 4, attached as EWEB/107.

17 **Q: WILL THE PROPOSED ACQUISITION IMPACT THE SOURCE OF**  
18 **FUNDS POTENTIALLY USED TO PAY DECOMMISSIONING COSTS?**

19 A: Yes. PGE has recognized that if actual decommissioning costs significantly exceed  
20 the previously estimated amount, funds collected through rates may not be  
21 adequate to cover actual decommissioning costs and may require that PGE utilize  
22 available cash and credit facilities to cover the shortfall. *See* EWEB/108. PGE's  
23 cash reserves will be lowered, however, and its credit rating potentially



1           downgraded, as a result of the proposed acquisition. These factors will combine to  
2           reduce PGE's flexibility to cover any Trojan contingency with cash reserves or  
3           short-term borrowing. At the same time, PGE is seeking to reduce its obligation to  
4           maintain financial protection for Trojan. If this request is granted by the NRC, then  
5           PGE would likely reduce the amount of insurance carried for Trojan. If cash  
6           reserves, insurance and short-term borrowings are insufficient, then the net impact  
7           of the proposed acquisition may be to increase reliance on potential retail rate  
8           surcharges to meet future Trojan expenses not contemplated in the  
9           decommissioning plan.

10   **Q:   DOES EWEB PROPOSE THAT THE COMMISSION ADOPT ANY**  
11           **CONDITIONS TO ASSURE PAYMENT OF THE TROJAN**  
12           **OBLIGATIONS?**

13   A:   Yes. If the Commission determines that there is a reasonable possibility that PGE  
14           might not be able to meet all of its expected and unexpected Trojan obligations  
15           given the available sources of revenue, then EWEB proposes that the Commission  
16           require PGE to post a surety bond, letter of credit or provide insurance for a  
17           reasonable time and in a reasonable amount. As stated above, EWEB does not  
18           oppose the acquisition of PGE and does not seek to place any unjustified burdens  
19           on the transaction. EWEB seeks only those financial protections that would  
20           reasonably ensure that the public and other Trojan owners are protected from the  
21           possibility that PGE will be unable to pay some unexpected Trojan expense.

22   **Q:   HOW LONG DOES EWEB PROPOSE SUCH FINANCIAL PROTECTIONS**  
23           **REMAIN IN PLACE?**

1 A: Such financial protections should remain available at least until PGE receives and  
2 maintains a specified credit rating approved by the Commission or the Commission  
3 determines that PGE has restored cash reserves adequate to meet unexpected  
4 Trojan expenses. In other words, the financial protections should be required only  
5 so long as PGE is in a financial condition that makes it unlikely that it will be as  
6 able to meet its share of these obligations as a highly credit-rated public utility.

7 **Q: WHAT AMOUNT OF FINANCIAL PROTECTION SHOULD THE**  
8 **COMMISSION REQUIRE?**

9 A: The financial protection should be in proportion to the magnitude of the identified  
10 contingencies as determined by the Commission. Whatever the magnitude of the  
11 contingencies, EWEB submits that a reasonable upper limit on any such financial  
12 protection would be \$240 Million which is roughly equivalent to the reduction in  
13 PGE cash reserves as a result of the proposed transaction.

14 **Q: SHOULD THE COMMISSION REQUIRE THAT SUCH FINANCIAL**  
15 **PROTECTIONS BE GUARANTEED?**

16 A: Yes. The availability of any such financial protections to meet any unfunded PGE  
17 Trojan expenses should be unambiguously guaranteed to ensure that the surety or  
18 insurer will not delay performing its duties by contesting whether the bond or  
19 insurance requires it to perform. This guaranteed performance would give PGE  
20 access to immediate funding without the threat of an emergency rate surcharge.

21 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

22 A. Yes, at this time.

**STATEMENT OF QUALIFICATIONS AND EXPERIENCE**

**Ken Beeson** is an Energy Resource Projects Manager at the *Eugene Water & Electric Board*. Since 1991, he has managed EWEB interests in various generation projects including a cogeneration project in northwestern Oregon, a wind project in southeast Wyoming, siting of a geothermal project proposed (but not constructed) near Newberry Crater in Central Oregon, and the decommissioned Trojan nuclear project. He is currently managing EWEB participation in a gas-fired project proposed in northeastern Oregon. His experience also includes coordinating the installation of EWEB's fiber optic telecommunications system and the recent review of EWEB electric system capital requirements. Ken started work at EWEB in 1976 in operations and engineering. He has a Bachelor of Science degree from the University of Oregon.

AGREEMENT FOR CONSTRUCTION  
OWNERSHIP AND OPERATION  
of the  
TROJAN NUCLEAR PLANT

THIS IS AN AGREEMENT between PORTLAND GENERAL ELECTRIC COMPANY, a corporation of Oregon, herein called "PGE", PACIFIC POWER & LIGHT COMPANY, a corporation of Maine, herein called "Pacific", and THE CITY OF EUGENE, a municipal corporation of the State of Oregon acting by and through the Eugene Water & Electric Board, herein called "Eugene", each individually called "the Party", collectively called "the Parties".

R E C I T A L S

Eugene is a city of the State of Oregon which, acting through the Eugene Water & Electric Board, owns and operates an electric light and power system and PGE and Pacific are investor owned electric utility corporations subject to regulation by the Public Utility Commissioner of Oregon.

In order to achieve the economies of size, the Parties propose to plan, finance, acquire, construct, operate, own and maintain each with an undivided interest in common facilities comprising a nuclear plant for the generation of electricity of approximately 1100 megawatts net electric capacity.

PGE has acquired a parcel of real property on the Columbia River between Prescott and Goble in the State of Oregon, known as the Trojan site, as the site for such nuclear plant known as

the "Trojan Nuclear Plant", and PGE has, in connection therewith, entered into certain contracts for planning, engineering and purchase of components and fuel for said plant and has filed an application for a license and permit to construct the plant together with a Preliminary Safety Analysis Report with the Atomic Energy Commission.

Now then, for and in consideration of the covenants and agreements hereinafter set forth, the Parties hereby agree as follows:

1. DEFINITIONS: (a) "AEC" means the United States Atomic Energy Commission and such successor agencies as shall have responsibility for licensing or regulating nuclear power generating plants.

(b) "Costs of Construction" means all costs attributable to the acquisition and construction of the Project and of making it ready for operation, excluding the cost of fuel and interest during construction. Credits relating to Costs of Constructions, including insurance proceeds, shall be applied to such costs when received.

(c) "Costs of Operation" means all costs attributable to the operation and maintenance of the Project, fuel and rights relating thereto, elective capital additions made pursuant to

Section 19, and subsequent to the Date of Commercial Operation, repairs and renewals and replacements necessary to assure design capability, and betterments and additions required by governmental agencies. Credits relating to such costs, including insurance proceeds, shall be applied to Costs of Operation when received.

(d) "Date of Commercial Operation" means the date fixed by PGE as the point in time when the Generating Plant is ready to be operated on a commercial basis pursuant to schedules submitted by the Parties.

(e) "Generating Plant" means the Nuclear Steam Supply System, the turbine-generator and related structures and facilities, including the cooling tower, Trojan substation, including facilities for switching and transformation to 230-kv, together with additions, betterments and replacements thereto and appropriate equipment, spare parts and initial operating supplies, but excluding fuel.

(f) "Labor Costs" shall mean all payroll, related employee benefit costs and employee expenses of all direct employees of the Parties, other than officers and principal department heads, chargeable to the Trojan Project.

(g) "Output" means the net capacity and energy from the Generating Plant which can be made available at the 230-kv terminals of the Trojan substation after station use and losses.

(h) "Ownership Share" of a Party means the decimal fraction specified in Section 2(a) or as may be adjusted pursuant to Sections 2(b) or 2(c), 16 and 17.

(i) "Plant Real Property" means that part of the real property described in Exhibit A which underlies the Generating Plant and the visitors' center, together with a non-exclusive easement over the remainder of such real property for all purposes necessary or appropriate to the construction, operation and maintenance of the Generating Plant, all subject to the conditions relating to easements necessary or appropriate to permit the placement and operation of other facilities as provided in Section 20 hereof on the real property described in Exhibit A, the prohibition of partition and conditions contained in Section 2 and the reverter described in Section 24. The cost of Plant Real Property is \$600,000.

(j) "Project" means the (i) Generating Plant, (ii) Plant Real Property, (iii) fuel and rights relating to fuel, (iv) all licenses, permits and rights necessary to construction and operation of the Project, (v) visitors' information and view structures, signs, landscaping and recreational facilities placed or constructed upon the property described in Exhibit A, (vi) roads, railroad spurs, docks, parking lots, fencing and

similar facilities, and (vii) all cash in the Construction and Operating Trust Accounts and all things acquired with funds from such accounts.

(k) "Project Consultant" means an individual or firm, of national reputation having demonstrated expertise in the field of the matter or item referred to it, appointed for the resolution of a dispute regarding a matter or item referred to it. A different Project Consultant may be appointed for each matter or item referred.

(l) "Prudent Utility Practice" means any of the practice methods and acts engaged in or approved by a significant proportion of the electrical utility industry prior to the time of the reference or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at the lowest reasonable cost consistent with reliability, safety and expedition. Prudent Utility Practice shall apply not only to functional parts of the Project, but also to appropriate structures, landscaping, painting, signs, lighting and other facilities and public relations programs reasonably designed to promote public enjoyment, understanding and acceptance of the Project. Prudent Utility Practice is not intended to be limited to the optimum practice, method or act to the exclusion of all others, but rather to be a spectrum of possible practices, methods or acts.

2. OWNERSHIP, RIGHTS AND OBLIGATIONS: (a) The Parties shall have title to the Project as tenants in common and shall,



as co-tenants with an undivided interest therein and subject to the terms of this agreement, own the Project, have the related rights and obligations, participate in its construction and operation and be entitled to its Output in the Ownership Share as follows; provided, however, that the Ownership Shares of Eugene and PGE shall be changed pursuant to Section 2(b) or 2(c):

<u>PARTY</u>	<u>OWNERSHIP SHARE</u>
PGE	.675
EUGENE	.30
PACIFIC	.025

(b) If Eugene has been unable for a period of 60 days to make payments due hereunder on account of Costs of Construction, but has made in good faith all possible efforts to raise the funds necessary to make such payments, PGE shall, after notice by either Eugene to PGE or PGE to Eugene, make the payments due from Eugene on account of the Costs of Construction and Eugene shall make no further such payments. Effective on the date specified in such notice Eugene's Ownership Share shall be reduced to the decimal expression (rounded to the nearest ten thousandth) of the fraction in which the denominator is the then estimated total Costs of Construction and the numerator is the amount paid by Eugene prior to the date stated in such notice, and the Ownership Share of PGE

shall be increased by the amount of such reduction; provided, however, that in the event Eugene's Ownership Share is reduced to less than 0.05, up to the Date of Commercial Operation PGE shall have the right but not the obligation to purchase such Ownership Share at an amount equal to Eugene's costs thereof plus 5% of such costs. On the Date of Commercial Operation the Ownership Shares of PGE and Eugene shall be readjusted computed as aforesaid, but using the total Costs of Construction as estimated on the Date of Commercial Operation. If Eugene and PGE are unable to agree on the estimated total Costs of Construction, the matter shall be referred to the Project Consultant whose estimate shall be binding on them and whose costs shall be borne equally by them.

(c) If prior to the Date of Commercial Operation Eugene is not able to lease all of its Ownership Share of the initial fuel core or obtain financing for its costs of the initial fuel core other than from Eugene bond proceeds and gives PGE written notice thereof, PGE and Eugene shall then agree upon an estimate of the Costs of Construction and an estimate of the amount expended and to be expended by Eugene from such bond proceeds on account of costs of the initial fuel core. If the two Parties are unable to agree on such amounts they shall refer the matter to the Project Consultant whose estimates shall be binding upon them and whose costs shall be borne equally by them. Thereafter, Eugene's Ownership Share shall be reduced to the

decimal expression (rounded to the nearest ten thousandth) of the fraction in which the denominator is such estimated total Costs of Construction and the numerator is such total Costs of Construction times 0.30 less such estimated amount expended and to be expended by Eugene from bond proceeds on account of the initial fuel core; and PGE's Ownership Share shall be increased by the amount of such reduction. At the same time PGE shall credit Eugene with the difference between the amount theretofore paid by Eugene and the amount which Eugene would have paid had its reduced Ownership Share been in effect from the beginning of this agreement, and the balance shall be applied to future payments due under this agreement.

(d) Each Party shall promptly and with all due diligence take all necessary action and seek all regulatory approvals, licenses and permits necessary to carry out its obligations under this agreement.

(e) Upon receipt of regulatory approval, changes in a Party's Ownership Share shall take place by virtue of this agreement and without any further act, but each Party shall from time to time on request execute deeds, bills of sale and whatever other documents may be necessary in addition to this agreement to evidence title as changed.

(f) The Parties expressly waive any right of partition of the Project and the real or personal property related thereto until the End of the Project as described in Section 24.

(g) Nothing in this agreement shall create a partnership.

joint venture, association or, except as provided in Sections 7 and 10, a trust. Each Party shall severally bear its Ownership Share of all obligations, including the supply of energy for station use when not generated by the Project, and liabilities relating to the Project as they arise.

(h) Each Party and its designees shall have the right to go upon and into the Project at any time subject to the rules and regulations of public authorities having jurisdiction thereof and to the necessity of efficient and safe construction and operation of the Project, but PGE shall have possession and control of the Project for all the Parties.

(i) In order to provide unified management of the Project, Eugene and Pacific authorize and designate PGE to construct and thereafter operate and maintain the Project under the terms of this agreement; provided, however, that PGE shall not be deemed to have the status or responsibility of an independent consultant, contractor or engineer.

(j) In construction and operation of the Project each Party shall act without compensation other than reimbursement of costs and expenses as provided herein. In consideration thereof each Party expressly agrees that each other Party individually shall not be liable to such agreeing Party for any claims or damage, including claims or damage covered by insurance, based

on or arising from a negligent act or omission of an agent or employee of such other Party, in connection with ownership, construction or operation of the Project, and that payment of such claims shall be Costs of Construction or Costs of Operation as appropriate.

3. ENGINEERING AND OPERATING DECISIONS: (a) At the time of the execution of this agreement and thereafter from time to time each Party shall appoint two members to the Engineering Committee and when requested by PGE, but no later than one month prior to the expected date of the first payment on account of fuel, each Party shall appoint two members to the Operating Committee. Each Committee shall meet at such times as may be agreed or upon three days' written notice by any member, and shall keep written minutes of its meetings. Each member of a Committee shall have the right to vote that part of the Ownership Share of the Party appointing him designated in the notice of his appointment, but the total voting rights of all members of a Committee appointed by one Party shall not exceed such Party's Ownership Share. Any action which may be taken at a meeting of a Committee may be taken without a meeting by individual action taken in writing by members of the Committee.

(b) PGE may, and where this agreement requires it PGE shall submit matters (including, without limitation, fuel plans, estimates and schedules) relating to construction or operation of the Project to the appropriate Committee, and matters not disappr

by a member of such Committee within the time after submission specified in this agreement (or if no time is specified, within seven days) shall be deemed approved by such member. Matters disapproved by a member shall be segregated by him so that the exact items of difference are identified and, subject to the provisions of Sections 10(a) and 12(b) with respect to the matters therein provided, items so identified shall be referred by PGE to the Project Consultant. Each member which within the limited time disapproves an item shall at the time of such disapproval state in writing his reasons and what alternative is acceptable to him. Items not so identified shall be deemed approved.

(c) The Project Consultant shall be appointed by PGE upon unanimous agreement of the Committee making the reference. In the absence of such agreement, PGE shall request the Chief Judge of the United States District Court for the District of Oregon to appoint the Project Consultant.

(d) The Project Consultant shall consider all written arguments and factual materials which have been submitted to it by any member within the ten days following its appointment, and as promptly as possible after the expiration of such period make a written determination as to whether any disapproved item referred to it would or would not have been consistent with Prudent Utility Practice. If the Project Consultant determines that the item

referred to it was not consistent with Prudent Utility Practice, then and only then it shall recommend what would under the same circumstances have met such test.

(e) Matters or items found by the Project Consultant to be consistent with Prudent Utility Practice shall become immediately effective. Matters or items found by the Project Consultant to be inconsistent with Prudent Utility Practice shall be modified to conform to the recommendation of the Project Consultant or as the appropriate Committee otherwise agrees and shall become effective as and when modified.

(f) The cost of employing the Project Consultant and the related expenses of its determination shall be a Cost of Construction or a Cost of Operation, as appropriate, if the Project Consultant determines that the item referred to it was not consistent with Prudent Utility Practice. If the Project Consultant determines that the item referred to it was consistent with Prudent Utility Practice, such costs shall be borne by the Parties whose members on the Committee disapproved such item, in proportion to their Ownership Shares.

(g) PGE shall have the right but not the duty to proceed with an item which has been disapproved by a member of a Committee; provided, however, if PGE takes such action on a disapproved item and if the determination made by the Project Consultant is that the

item was not consistent with Prudent Utility Practice, then PGE shall individually bear the net increase in the Cost of Construction or Cost of Operation of such action to the extent it was inconsistent with what the Project Consultant determined would under such circumstances have met such test.

(h) No member of a Committee (or his successor) shall disapprove (i) matters submitted to such member which he has previously approved or which were submitted to his Committee pursuant to the terms of this agreement and not disapproved by him within the time allowed, (ii) items found by the Project Consultant to have been consistent with Prudent Utility Practice, or items modified by the Project Consultant, or (iii) items involving a cost borne by PGE individually, or (iv) items with a cost less than \$100,000.

4. CONSTRUCTION AND LICENSING: (a) PGE shall take whatever action is necessary or appropriate to seek and obtain all licenses, permits and other rights and regulatory approvals necessary to construction and operation of the Project for itself and on behalf of the other Parties.

(b) PGE shall prosecute construction of the Project in accordance with Prudent Utility Practice and plans and specifications for the Project shall be prepared or approved by Bechtel Corporation. PGE shall schedule the Date of Commercial



Operation to be, as near as may be, September 1, 1974.

PGE shall award separate contracts for readily separable parts of the work, the objective being to accomplish the construction of the Project at the least overall cost consistent with the high quality required. Construction contracts shall be lump sum or unit price if it is considered feasible to get satisfactory bids; otherwise they shall be cost reimbursable types of contracts with incentive clauses.

As a matter of policy, PGE shall advertise for bids from among prequalified contractors and award the contract to the lowest responsive bidder unless there are substantial reasons for deviating from the policy in a particular case. Contracts so awarded will include the provisions required to be included by Executive Order 11

PGE shall keep the members of the Engineering Committee fully informed of all matters PGE deems significant with respect to construction of the Project where practicable in time for the members to comment thereon before decisions are made and of such other matters as requested by any member. PGE shall submit bids and proposed contracts involving more than \$500,000 to the Engineering Committee before taking action thereon.

(c) PGE has entered into contracts relating to the Project listed in Exhibit B. Eugene and Pacific ratify and approve the said contracts.

5. REIMBURSEMENT FOR ADVANCES: (a) At the time this agreement is executed by all Parties Eugene and Pacific shall pay PGE their respective Ownership Shares of the Costs of Construction and Costs of Operation, except administrative and general costs advanced by PGE up to the time of payment plus administrative and general costs equal to 0.95 percent of such Costs levelized pursuant to Section 5(d) and plus the interest cost to PGE from the time of such advances. At the same time each Party shall directly pay to Eugene and Pacific its respective Ownership Share of the Labor Costs and services advanced by such Parties with the consent of PGE for the benefit of the Project, plus interest costs.

(b) PGE shall be reimbursed from the Construction Trust Account for Costs of Construction advanced by it after this agreement has been executed by all Parties for, among other things: (i) Labor Costs, (ii) other Costs of Construction expended for the benefit of the Project, including, without limiting the generality of the foregoing, equipment, materials, supplies, travel and construction power, and (iii) administrative and general costs in an amount equal to 0.95 percent of all Costs of Construction levelized pursuant to Section 5(d) except Costs of Construction reimbursed pursuant to Section 5(a) and except such administrative and general costs. After this agreement has been executed by all the Parties Eugene and Pacific shall be reimbursed from the appropriate trust account

for advancements on account of Labor Costs made thereafter with the consent of PGE as part of the Costs of Construction.

(c) PGE shall be reimbursed from the Operating Trust Account for Costs of Operation advanced by it after this agreement has been executed by all Parties for, among other things: (i) Labor Costs, (ii) other operating costs expended for the benefit of the Project, including, without limiting the generality of the foregoing, equipment, materials, supplies and travel, (iii) administrative and general costs in an amount equal to 0.95 percent of Costs of Operation except such administrative and general costs prior to the effective date of the first Operating Budget levelized pursuant to Section 5(d) and (iv) administrative and general costs included in the Operating Budget.

(d) The sum of the amounts of administrative and general costs due under Sections 5(a), 5(b)(iii) and 5(c)(iii) shall be estimated. Such sum shall be levelized and paid at such times and in such amounts that an equal amount is paid in each month of the period from January 1, 1969, to the estimated Date of Commercial Operation, except that the sum of the amounts which would otherwise have been due in the months prior to the time this agreement is executed by all Parties shall be paid at such time. If during the period of construction Project facilities, construction work or licensing requirements and activities increase substantially beyond

those contemplated by said estimate, or if the Date of Commercial Operation is significantly delayed, PGE shall be equitably reimbursed by the other Parties for such Parties' Ownership Shares of any increased administrative and general costs occasioned by such increases or delays.

6. CONSTRUCTION BUDGET: An initial budget of the amounts expected to be expended for specific items of Costs of Construction in each month from the date of this agreement to December 31, 1970, and in each quarter thereafter to the completion of construction as determined by PGE, has been submitted to the Parties and is hereby approved. By September 1 of each year until the completion of construction PGE shall submit to the Engineering Committee an updated budget, supported by detail adequate for the purpose of comprehensive review, describing the items of Costs of Construction and of the amounts expected to be expended therefor in each month during the next calendar year and in each quarter thereafter. Such budgets shall become effective unless disapproved within 30 days after submittal. Construction budgets shall be changed by PGE from time to time during a calendar year as necessary to reflect substantial changes in construction schedules, plans, specifications or costs, and when so changed shall be submitted similarly to the Engineering Committee. Such changes applicable to the current calendar year shall be subject to disapproval for only seven days following submission.

7. CONSTRUCTION PAYMENTS: (a) PGE shall establish a separate Construction Trust Account in a bank located in the State of Oregon and having qualifications meeting all requirements imposed

upon depositories for any of the Parties. All moneys for Costs of Construction of the Project not paid pursuant to Section 5(a) shall be deposited therein and PGE shall withdraw and apply funds therefrom as necessary to pay all Costs of Construction.

(b) Upon execution of this agreement each Party shall pay into the Construction Trust Account its Ownership Share of a working fund of \$100,000 and each Party shall thereafter continue to maintain its Ownership Share of such fund at such amount.

(c) Except as otherwise agreed by the Parties, each Wednesday PGE shall notify Eugene and Pacific of the Costs of Construction and reimbursement of the working fund expected to be paid during the next calendar week and, whether or not such amounts are specified in the budget, each Party shall deposit its Ownership Share of such amounts in the Construction Trust Account on the first banking day of such week.

(d) Upon completion of the construction of the Project, acceptance of the Generating Plant by PGE and settlement of all the obligations relating to construction, PGE shall close the Construction Trust Account and distribute to each Party its Ownership Share of any balance remaining.

8. OPERATION: PGE shall carry out operation and maintenance of the Project so as to meet the requirements of the AEC and other government agencies having jurisdiction in the matter and

in accordance with Prudent Utility Practice, giving due consideration to the recommendation of the Operating Committee and to the manufacturers' warranty requirements. Subject to the foregoing and to the provisions of Section 12, PGE shall operate and maintain the Project so as to produce the amounts of energy scheduled by the Parties within their respective Ownership Shares of the net capacity of the Generating Plant.

9. OPERATING BUDGETS: (a) At least three months prior to the expected Date of Commercial Operation, PGE shall submit to the Operating Committee a budget of the Costs of Operation, except fuel costs, but including administrative and general expenses relating to operation and fuel, for each month from the expected Date of Commercial Operation to the next succeeding January 1, and if the Date of Commercial Operation occurs subsequent to September 1 in a calendar year, a similar Operating Budget for the next succeeding calendar year. Thereafter, on September 1 of each year, PGE shall submit to the Operating Committee a similar Operating Budget for the next succeeding calendar year, which Operating Budget shall take into account the cumulative difference between payments into and expenditures from the Operating Trust Account up to the preceding August 1 and provide for restoration, as necessary, of the working cash fund. Each Operating Budget shall be supported by detail adequate to the purposes of each Operating Committee member and

shall show, among other things, staffing allocations and PGE services. Such budget shall become effective unless disapproved within 30 days after submittal.

(b) The effective Operating Budget shall be changed: (i) to include costs occasioned by an emergency, (ii) to provide for repairs, renewals, replacements or additions necessary to achieve design peak and energy capability, or (iii) to provide for an expenditure required by governmental authority or an expenditure required by Section 16. Promptly after the occurrence of any of the above events and promptly after the occurrence of other circumstances requiring the expenditure of funds not contemplated in the effective Operating Budget, PGE shall submit a revised Operating Budget to the Operating Committee. Costs incurred by PGE in the exercise of Prudent Utility Practice prior to the time a revised Operating Budget becomes effective shall be added as incurred to the amounts due under the Operating Budget. The revised Operating Budget shall become effective unless disapproved within seven days after submittal.

10. OPERATING PAYMENTS: (a) Prior to the date of the first payment required on account of fuel, or such earlier time as the Operating Committee shall agree, PGE shall establish an Operating Trust Account in a bank located in the State of Oregon and having qualifications meeting all requirements imposed upon

depositories for any of the Parties. Prior to the Date of Commercial Operation each Party shall deposit in such Account its Ownership Share of a working cash fund of \$100,000 or such other amount as the Operating Committee shall determine by a vote of 0.75 Ownership Share. All moneys received by PGE as operator of the Project on account of the Project, except Costs of Construction, shall be deposited in such Account.

(b) No later than the next to the last business day of each month each Party shall deposit in the Operating Trust Account such Party's Ownership Share of the amount budgeted for the next succeeding month in the effective Operating Budget; provided, however, that when a revised Operating Budget becomes effective during a month each Party shall immediately deposit in the Operating Trust Account such Party's Ownership Share of any increase effectuated by the revised Operating Budget for that month.

11. FUEL: (a) After consultation with the Operating Committee, giving due consideration to the desires of each Party, PGE shall prepare and submit a fuel management plan and changes therein to the Operating Committee sufficiently in advance of the proposed action relating thereto to permit consideration and prosecution of the plan. Each such plan shall describe in detail each contemplated action and payment and the dates thereof, and, where applicable, core usage and design burn-up, and estimated



fueling date. Such plan shall become effective unless disapproved within 30 days after submittal, and subject to the provisions of Section 11(b), PGE shall implement such plan.

(b) If no effective fuel management plan provides specifically for a different time and manner of fueling, at the time when the design burn-up has been achieved and also on each October 1 unless the core then contains sufficient energy to permit operation of the Generating Plant at 85% plant factor to the following March 1, PGE shall proceed to fuel the Generating Plant subject to availability of fuel and to license and operating limitations.

(c) At the time of each fueling PGE shall submit to the Operating Committee an estimate of the next fueling date, the kilowatt hours of net energy available to such next fueling, and the cost per kilowatt hour of energy available to the next fueling date. Such cost per kilowatt hour shall be based upon estimates of (i) plant factor, (ii) design burn-up, and (iii) payments made or to be made from the Operating Trust Account, minus net fuel recoveries credited or to be credited to such Account, all as applicable to the core between such fueling date and the next planned fueling date. If no member of the Operating Committee disapproves such estimate within 30 days of its submittal, it shall become effective.

(d) Each Party shall pay or cause to be paid into the

Operating Trust Account its Ownership Share of each payment related to fuel required by the fuel plan at least seven days prior to the date when payment is due; provided, however, that each such Party shall have the right to make whatever arrangements it may desire, whether by lease, security transaction or otherwise, for the discharge of its Ownership Share of such obligation so long as such arrangements do not impair the rights of any other Party. PGE shall disburse each payment related to fuel from the Operating Trust Account when due. Each Party shall receive its Ownership Share of each net fuel recovery credit.

(e) PGE shall keep an hourly record, cumulative from the time of the most recent fueling, charging to each Party the net energy which has been generated for such Party and the net energy for which such Party has become entitled to be paid pursuant to this subsection (e). When the sum of the amounts so charged to a Party equals such Party's Ownership Share of the net energy estimated to be available pursuant to Section 11(c) such Party shall become a deficient Party and, while there are other Parties which are not deficient, shall be required to pay the cost estimated pursuant to Section 11(c) for each kilowatt hour thereafter scheduled by it until the next fueling. Such payment shall be made to each Party which was not at the time of such schedule a deficient Party,

in the proportion that such Party's Ownership Share bore to the sum of the Ownership Shares of all Parties which were not deficient Parties. Amounts becoming due during a month shall be paid by the 15th day of the next succeeding month.

12. SCHEDULING: (a) Each Party shall be entitled to receive as scheduled all or any part of its Ownership Share of the Output of the Generating Plant at the 230-kv terminals of the Trojan substation. Each Party shall report its hourly schedule for the following day to PGE's dispatcher by 4:00 p.m. each day, except that the schedule for holidays, Saturdays and Sundays, and for the day following such days shall be submitted by 4:00 p.m. of the preceding week day; provided, however, that each Party shall have the right to change its schedule on shorter notice to reflect changes in its requirements. Should the total of requested changes in the level of operation of the Generating Plant require a rate of change in excess of either that prescribed by its manufacturers or in the AEC operating license, each Party whose scheduled rate of change is in excess of its Ownership Share of the prescribed limit shall be limited proportionately so that the total rate of change does not exceed the prescribed rate of change. If fulfilling the requested schedules of Parties would require operation of the Generating Plant at an operating level below the minimums recommended by its manufacturers or the

terms of the AEC operating license, whichever is higher, the PGE dispatcher shall immediately notify all the Parties, who with PGE shall have the right (proportional in accordance with the Ownership Share of each among those exercising such right) to supply the requested schedules from other sources in lieu of operating the Generating Plant and to be paid therefor, by the 15th day of the month following the month of delivery, at the rate per kilowatt hour established pursuant to Section 11(c). If none of the Parties agrees to supply such schedules as so requested, the Generating Plant shall be operated at the minimum generation permitted by the manufacturers' recommendation or the terms of the AEC operating license, whichever is higher. The Parties whose schedules are greater than their Ownership Share of such minimum generation shall take such schedules, and the other Parties shall schedule and take (proportional to their Ownership Shares) the remainder of such minimum generation.

(b) PGE shall schedule Generating Plant outages other than fueling outages and notify the Operating Committee as to the time and duration thereof as far in advance as practicable. If the Operating Committee does not disapprove such outage by a vote of more than .25 Share within five days, the Generating Plant shall be shut down in accordance with such schedule. Notwithstanding the foregoing, PGE may shut the Generating Plant down to avoid

hazard to any person or property.

(c) When testing of plant facilities requires generation, each Party shall make provision for acceptance of its Ownership Share of such generation. PGE will notify Parties of test schedules as far in advance as practicable.

(d) During any hour in which the Project does not generate its station use and losses to the 230-kv terminals of the Trojan substation, PGE's dispatcher shall notify the Parties and each Party shall deliver its Ownership Share of such energy to the Project.

13. ACCOUNTING: (a) PGE shall keep separate, complete and accurate account of all deposits in and withdrawals from the Construction Trust Account and each of the Parties shall keep complete and accurate accounts of all costs incurred by it for which it is to be reimbursed from such Account.

(b) PGE shall keep separate, complete and accurate account of all deposits in and withdrawals from the Operating Trust Account and complete and accurate account of all costs incurred by it for which it is reimbursed from such Account.

(c) All accounts shall be kept so as to permit conversion to the system of accounts prescribed for electric utilities by the Federal Power Commission, and the allocation of costs by PGE between Costs of Construction and Costs of Operation pursuant to this agree-

ment shall be binding on the Parties for purposes of this agreement, but the manner in which accounts are kept pursuant to this agreement is not intended to be determinative of the manner in which they are treated in the books of account of the Parties.

(d) Each Party shall have the right at any reasonable time to examine the separate books of account kept by PGE pursuant to this section and to examine the books of account and all supporting data and documents relating to amounts for which any Party is to be reimbursed from the trust accounts, and to examine and copy all plans, specifications, bids and contracts relating to the Project.

(e) PGE shall by the 15th of each month supply to each Party a complete itemized account of all deposits in and withdrawals from the trust accounts during the previous month, together with an itemization of the basis for reimbursement made to PGE from such account during such month. PGE shall cause all accounts to be audited by independent Certified Public Accountants of national reputation acceptable to all the Parties at approximately annual intervals and when such accounts are closed. Copies of such audits shall be supplied to each Party.

14. INSURANCE: PGE shall maintain in force, for the benefit of the Parties as their interests shall appear, as a Cost of Construction or a Cost of Operation as appropriate, such insurance

as the Parties may agree upon, but not less than is required under the contract with the Bechtel Corporation during the time it is in force, and thereafter not less than will satisfy the requirements of the Atomic Energy Act of 1954, as amended, and conform to Prudent Utility Practice. PGE shall keep the other Parties informed as to the status of insurance in force and if it does so, PGE shall not be liable for any failure to insure or inadequacy of coverage. Proceeds from such insurance for loss or damage to the Project shall be deposited in the appropriate trust account and shall be applied to repair of such damage as provided in Section 16.

15. UNCONTROLLABLE FORCES: No Party shall be in default in performance of any obligation hereunder, except the payment of money, if such failure of performance is due to causes which such Party could not have reasonably been expected to avoid.

16. DAMAGE TO THE PROJECT: (a) In the event that (i) after the Date of Commercial Operation the Project suffers damage, resulting from causes other than ordinary wear, tear or deterioration to the extent that the estimated cost of repair as unanimously agreed by members of the Operating Committee, or, if they cannot agree within a period of three months from the date of damage, as determined by the Project Consultant, exceeds the estimated available proceeds of insurance, if any, by less than \$6,000,000, or (ii) prior to the Date of Commercial Operation the Project suffers

damage to any extent, and in either of such events, if the Parties do not unanimously agree that the Project shall be ended pursuant to Section 24, PGE shall promptly submit a revised Construction or Operating Budget, as appropriate, and shall proceed to repair the Project, and each Party shall pay as budgeted, into the, appropriate Trust Account, its Ownership Share of the cost thereof in excess of insurance proceeds.

(b) If after the Date of Commercial Operation the Project suffers damage to the extent that the estimated cost of repair exceeds the estimated available proceeds of insurance, if any, by more than \$6,000,000 as determined in Section 16(a), the appropriate committee shall agree upon, or if they cannot so agree within six months from the date of damage, the Project Consultant shall determine, the estimated value of the Project as and when repaired. Thereafter, each Party which, within a reasonable time to be determined by the appropriate committee gives notice in writing to the other Parties of its desire that the Project be repaired, shall, in the proportion that its Ownership Share bears to the total of the Ownership Shares of all Parties giving such notice, pay into the appropriate Trust Account, as budgeted in a revised budget, all of the cost of repair in excess of insurance proceeds, if any. If any Party has given such notice, the Ownership Share of each Party which does not give such notice shall, at the end of the



reasonable time which was determined by the appropriate committee, be reduced to the extent determined by the following formula:

$$S_r = S_o \left[ \frac{V - (C - I)}{V} \right]$$

where

V = Estimated value of the Project as repaired  
 C = Estimated cost of repair  
 I = Estimated insurance proceeds  
 S<sub>o</sub> = Ownership Share prior to loss  
 S<sub>r</sub> = Reduced Ownership Share

At the same time the amount of such reduction shall be added to the Ownership Share of Parties giving such notice in the proportion that the Ownership Share of each bears to the total of the Ownership Shares of all Parties giving such notice.

(c) If after the Date of Commercial Operation the Project suffers damage to the extent that the estimated cost of repair as determined in Section 16(a) exceeds the estimated available proceeds of insurance, if any, by more than \$6,000,000 and no Party gives the notice required by Section 16(b), the Project shall be ended pursuant to Section 24.

17. DEFAULT: (a) Upon failure of a Party to make any payment when due or perform any obligation of an owner herein, any other Party may make written demand upon said Party, and if said failure is not cured within 60 days from the date of such demand

it shall at the expiration of such period constitute a default. A Party in default shall have no right to the Output of the Project, to have representation on any committee, nor to exercise any other right of a Party. In such event the defaulting Party's Ownership Share of power and energy may be sold during the period of the default for the benefit of the defaulting Party (to third Parties or other Parties to the agreement) and the proceeds applied to the amounts owed by such Party. If a Party in good faith disputes the existence or extent of such failure, it shall within said 60-day period make such payment or perform such obligation under written protest directed to the other Parties. Such dispute shall be submitted to the Project Consultant who shall determine the extent of the obligation of the Party disputing such failure and any payments shall be adjusted accordingly. Payments not made when due may be advanced by the other Parties and, if so advanced, shall bear interest, until paid, at the rate of 1% per month or the highest lawful rate, whichever is lower.

(b) If such default results from the nonpayment of capital costs, as defined in the Federal Power Commission Uniform System of Accounts, and continues for a period of four months, the defaulting Party shall afford the other Parties the right (but they shall not have the obligation) for an additional period of

two months to elect, by notice in writing, to undertake the payment of such capital costs in full. In such case any advances of such capital costs previously made pursuant to Section 17(a), and any additional payments necessary to pay such capital costs in full, shall be for the account of the paying Party, and the defaulting Party's Ownership Share shall at the time of such election be reduced to the extent determined by the following formula:

$$S_P = S_O \left[ \frac{V - A}{V} \right] \quad \text{where:}$$

V = Estimated value of the project including estimated capital costs as agreed by the appropriate committee or, if it cannot agree, as determined by the Project Consultant

A = Such capital costs plus interest on any part advanced

S<sub>O</sub> = Ownership Share prior to default

S<sub>P</sub> = Reduced Ownership Share

At the same time the amount of such reduction shall be added to the Ownership Shares of the other Parties in the proportion that the amount so advanced by each bears to the total amount advanced.

(c) In addition to the rights granted in this Section 17, any non-defaulting Party may take any action, in law or equity, to enforce this agreement and to recover for any loss or damage, including attorneys' fees and collection costs, incurred by reason of such default.

18. NOTICE UNDER OTHER AGREEMENTS: If Eugene is wholly unable to participate in the ownership, construction or operation of the Project due to licensing, financing, construction or operating conditions which are beyond its control, or if the Project is terminated pursuant to Section 24, Eugene shall give the notice of termination required by Section 12(a) of the Trojan Nuclear Project Agreement 14-03-09181 executed by the USA, Department of the Interior, acting by and through the Bonneville Power Administrator, and the City of Eugene, Oregon.

19. ELECTIVE CAPITAL ADDITIONS: Renewals and replacements not necessary to assure design capability, and betterments and additions not required by governmental agencies, shall be made after the Date of Commercial Operation only upon unanimous recommendation of the Operating Committee; provided, however, that PGE, alone or together with any other Party, may make such additions at its own expense.

20. ADDITIONAL FACILITIES: In the event additional facilities are constructed on the real property described in Exhibit A the Parties hereto shall, to the extent that the same will not interfere with the use and operation of the Project in such a way as cannot be corrected or compensated for, grant to the owners of such additional facilities the right to use, add to and modify Project facilities; provided, however, that such owners shall first pay or agree to pay

to the Parties: (i) an equitable part of the cost of such additions or modifications to Project facilities, (ii) any cost of relocation of Project facilities, (iii) equitable compensation for the use of any Project real, personal or other property, except easement rights, utilized by such owners, and (iv) equitable compensation for any increase in operating, maintenance or other costs incurred by the Parties by reason of the construction and operation of such additional facilities. Provided further that the provisions of this Section shall not operate to increase the Parties' exposure to uninsured loss without the written consent of the Parties, and if reasonable arrangements are made to cover such increased exposure, such consent shall not be withheld. If the owners of such additional facilities and the Parties are unable to agree as to any costs or compensation in accordance with the foregoing, the matter shall be referred to the Project Consultant for determination by it.

21. INVESTMENT: PGE shall have the right, but not the obligation, to invest funds in the Construction Trust Account or in the Operating Trust Account in legally issued obligations of the United States or the State of Oregon and the net proceeds from such investments shall be deposited in the Account from which it came and credited to the Parties in their respective Ownership Shares.

22. ASSIGNMENT: This agreement shall be binding upon and shall inure to the benefit of successors and assigns of the Parties, provided, however, that no transfer or assignment of other than all of a Party's interest in the Project and under this agreement to a single entity shall operate to give the assignee or transferee the status or rights of a "Party" hereunder and no transfer or assignment hereunder shall operate to increase the number of representatives of any Party on any committee. Except as provided in Sections 2(b), 2(c), 16 and 17 of this agreement, the undivided interest (or a portion thereof) of any Party in the Project, the property, real or personal, related thereto, and under this agreement may be transferred and assigned as set out below but not otherwise:

- (a) To any mortgagee, trustee, or secured party, as security for bonds or other indebtedness of such Party, present or future; and such mortgagee, trustee or secured party may realize upon such security in foreclosure or other suitable proceedings, and succeed to all right, title and interests of such Party;
- (b) To any corporation or other entity acquiring all or substantially all the property of the Party making the transfer;
- (c) To any corporation or entity into which or with which the Party making the transfer may be merged or consolidated;
- (d) To any corporation or entity, the stock or ownership

of which is wholly owned by the Party making the transfer;

(e) To any corporation or entity in a single transaction constituting a sale and lease back to the transferor or assignor;

(f) To any other person, provided that so long as Eugene retains its Ownership Share in the Project no interest, except as a security interest, in the Project shall be sold or assigned to an entity not authorized by ORS 225.470 to participate in common facilities with a municipal system; and provided further, that the Party shall first offer to transfer or assign such interest to the other Parties proportionately at the amount of and on terms and conditions not less advantageous than those which it is willing to accept for a transfer or assignment to such other person. Such offer shall remain open for a reasonable period but not less than three months; and if the offer of the selling Party's interest is not accepted by any other Party proportionately, the entire offer may be accepted by one of the other Parties or in different proportions among the other Parties as such Parties may mutually agree;

(g) Transfer or assignment shall not relieve a Party of any obligation hereunder except to the extent agreed to in writing by all the other Parties.

23. TRAINING: FGE shall carry out a familiarization and training program to maintain adequate staffing, engineering and operation of the Project and the expenses thereof shall be part of

the Costs of Construction or Costs of Operation as appropriate. Each Party shall be entitled in proportion to its Ownership Share, within the limits of operating efficiency and safety requirements, to use of the facilities of the Project for the training of its own employees for staffing of other nuclear facilities or the engineering and operation thereof. Any increase in the Costs of Construction or the Costs of Operation resulting from such training shall be borne by the Parties employing such trainees.

24. END OF THE PROJECT: When the Generating Plant can no longer be made capable, consistent with Prudent Utility Practice as determined (if necessary) by the Project Consultant, of producing electricity, or is not licensable by the AEC, or when the Project is ended pursuant to Section 16, PGE shall sell for removal all salable parts of the Project to the highest bidders; provided, however, that the Plant Real Property shall revert to PGE. After deducting all costs of ending the Project, including, without limiting the generality of the foregoing, the cost of decommissioning, razing all structures and disposing of the debris and meeting all requirements of Federal, state or local law relating to the safe deactivation of the plant, PGE shall close the appropriate trust account and, if there are net proceeds, distribute to each Party its Ownership Share of such proceeds, including the value of the Plant Real Property as determined by agreement of all the Parties.



or in the absence of such agreement, by the Project Consultant. In the event such costs of ending the Project exceed available funds, each Party shall pay its Ownership Share of such excess as incurred.

IN WITNESS WHEREOF, the Parties hereto have caused this agreement to be executed this 5<sup>th</sup> day of October, 1970.

PORTLAND GENERAL ELECTRIC COMPANY

By Robert N. Hunt

Attest:

H. H. Mumps

THE CITY OF EUGENE,  
acting by and through the Eugene  
Water & Electric Board

By [Signature]

Attest:

[Signature]

PACIFIC POWER & LIGHT COMPANY

By George L. Beard

Attest:

[Signature]

SUPPLEMENTAL AGREEMENT

This is an agreement between Portland General Electric Company, a corporation of Oregon (PGE), the City of Eugene, a Municipal Corporation of the State of Oregon acting by and through the Eugene Water & Electric Board, (Eugene), and Pacific Power & Light Company, a corporation of Maine (Pacific), supplementing and conditioning an agreement of even date titled "Agreement for Construction, Ownership and Operation of the Trojan Nuclear Plant".

In consideration of the execution of said Agreement and of the provisions herein set forth, the parties agree as follows:

1. Notwithstanding the provisions of Section 5 of said Agreement, Eugene shall be excused from the payments therein required until it has raised funds in amount sufficient to make such payments estimated to be required for Eugene's share of the Costs of Construction through December 31, 1971 (such estimate being \$13,000,000). Eugene shall proceed at once to use its best efforts, in good faith, to raise such funds through the sale of bonds or bond anticipation notes. If Eugene has not raised such funds by June 30, 1971, said

Agreement shall thereupon become of no effect and void ab initio. In such event PGE shall promptly repay to Pacific any sums theretofore paid or advanced by Pacific pursuant to said Agreement, together with Pacific's related interest costs from the date such sums were paid or advanced to such date of repayment.

- 2. Pacific's obligations under said Agreement shall not become effective until approved by the Public Utility Commissioner of the State of Oregon.

October 5, 1970.

PORTLAND GENERAL ELECTRIC COMPANY

By A. J. Foster

Attest [Signature]

THE CITY OF EUGENE - Acting by and through the Eugene Water & Electric Board

By [Signature]

Attest [Signature]

PACIFIC POWER & LIGHT COMPANY

By George L. Beard

Attest [Signature]

## EXHIBIT A

## TROJAN NUCLEAR PLANT SITE: Exterior Boundary

A tract of land lying in Sections 35 and 36, Township 7 North, Range 2 West, Willamette Meridian and in Sections 1 and 2, Township 6 North, Range 2 West, Willamette Meridian, Columbia County, Oregon, being more particularly described as follows, to-wit:

Beginning at the Northwest corner of that certain parcel of land in Section 35, Township 7 North, Range 2 West, Willamette Meridian, as described in Deed to Portland General Electric Company recorded December 19, 1968 in Book 171, page 935 of Deeds of said County, the said beginning being the intersection of the Southerly right of way line of R. F. Graham Co. Rd. No. P-78 and the Easterly right of way line of the Columbia River Highway; thence Southerly tracing the Easterly right of way line of said Columbia River Highway a distance of 2760 feet, more or less, to a point on the Section line between Section 35, Township 7 North, Range 2 West, Willamette Meridian, Columbia County, Oregon, and Section 2, Township 6 North, Range 2 West, Willamette Meridian, Columbia County, Oregon; thence North  $89^{\circ} 56' 30''$  West along the North line of said Section 2, 163.4 feet to the quarter corner between Sections 35 and 2-aforesaid; thence West 1265.27 feet, more or less, along the North line of said Section 2 to the Northwest corner of the Northeast quarter of the Northwest quarter of said Section 2; thence South 2776.54 feet, more or less, along the West line of the East half of the Northwest quarter of said Section 2 to the Southwest corner of the Southeast quarter of the Northwest quarter of said Section 2; thence East 1299.16 feet, more or less, along the South line of the East half of the Northwest quarter of said Section 2 to the center of said Section 2; thence South  $2^{\circ} 47' 00''$  East 658 feet along the West line of Southeast quarter of said Section 2; thence South  $88^{\circ} 53' 00''$  East 1308.71 feet, more or less, to the West line of the NE  $1/4$  of SE  $1/4$  of Section 2; thence South 658.42 feet, more or less, to the Southwest corner of the Northeast quarter of the Southeast quarter of said Section 2; thence

East along the South line of the Northeast quarter of the Southeast quarter of Section 2 1277.25 feet, more or less, to the Northwest corner of Government Lot 4, Section 1, Township 6 North, Range 2 West, Willamette Meridian, Columbia County, Oregon; thence South 1318.26 feet, more or less, along the West line of said Government Lot 4 to the section corner common to Sections 1, 2, 11 and 12, Township 6 North, Range 2 West, Willamette Meridian, Columbia County, Oregon; thence East 2000 feet, more or less, along the South line of said Government Lot 4 to Southeast corner of said Government Lot 4; thence continuing East on an East projection of said South line of Government Lot 4 being on the South line of said Section 1, Township 6 North, Range 2 West of the Willamette Meridian to the Easterly line of the tidelands fronting and abutting said Government Lot 4; thence Northerly and downstream with, adjacent to the left bank of the Columbia River; tracing the meanderings of the Easterly line of the tidelands abutting and fronting Government Lots 4, 3, 2 and 1 of Section 1, Township 6 North, Range 2 West, Willamette Meridian, Columbia County, Oregon to an East projection of the North line of said Government Lot 1, as described in that certain Parcel 5 on page 23 of Book 168, Deed Records of Columbia County, Oregon; thence West on the aforesaid North line and East projection thereof of Government Lot 1 to the Southeast corner of that certain Parcel 1 as described on Page 117, Bk 168, Deed Records of Columbia County, Oregon, the said Parcel 1 being in Sections 35 and 36, Township 7 North, Range 2 West, Willamette Meridian, Columbia County, Oregon; thence downstream along the Westerly bank of the Columbia River and the Easterly line of the last aforesaid Parcel 1 and the Easterly line of Parcel 2 as described on Page 117, Book 168, Deed Records of Columbia County, Oregon, the following courses and distances, North 39° 19' East 98.6 feet, North 25° 38' West 249.60 feet, North 350 feet, North 66° 32' West 108.2 feet, North 30° 34' West 414.50 feet, North 22° 02' East 344.40 feet to a point on what is known as the Devil's Backbone, the said last mentioned point being the Northeast corner of that certain Parcel 2 as described on Pages 117 and 118, Book 168, Deed Records of Columbia County, Oregon; thence continuing downstream along the Westerly bank of the Columbia River North 8° 29' West 1009.20 feet to the Southeast corner of that certain parcel as described on page 387, Book 73, Deed Records of

Columbia County, Oregon; thence North 89° 38' West 777.60 feet; thence North 280 feet to the South line of Prescott Homes, a duly recorded plat of Columbia County; thence tracing the South line of said Prescott Homes, Columbia County, Oregon, North 89° 38' West 487.97 feet to a point of intersection with the East right of way line of the Spokane, Portland and Seattle Railway; thence continuing on a Westerly extension of the South line of said Prescott Homes, Columbia County, Oregon to its intersection with the division line of a triangular tract of land as excepted and described in Deed to Portland General Electric by Deed recorded December 19, 1968 in Book 171, page 935, Deed Records of Columbia County, Oregon; thence North 6° 36' 40" West along said division line to the Southerly right of way line of said Graham Road; thence along the said Southerly right of way line of said Graham Road Southwesterly approximately 1715 feet to the place of beginning

EXCEPTING THEREFROM the following:

1. That portion lying in County Road, and Old Columbia River Highway and relocated Columbia River Highway.
2. The Welter Family Catholic Cemetery in the Southeast quarter of the Southwest quarter of the Northeast quarter of Section 2 in Township 6 North of Range 2 West of the Willamette Meridian, Columbia County, Oregon and in Deed recorded March 4, 1919 in Book 27, page 209, Deed Records of Columbia County, Oregon.
3. Those portions of the Spokane, Portland and Seattle Railway right of way, as now located, traveled, and of record in Sections 35 and 36, Township 7 North, Range 2 West and in Section 1, Township 6 North, Range 2 West of the Willamette Meridian, Columbia County, Oregon.
4. Rights reserved in Deed from R. F. Graham, et al to Charles Stevens and Darleen Stevens, husband and wife, recorded August 20, 1928 in Book 46, page 127, Deed Records of Columbia County, Oregon.

5. Easement for water pipe line, including the terms and provisions thereof, given by Delbert L. Burnham, et ux to City of Prescott as disclosed by instrument recorded February 10, 1967 in Book 164, page 137, Deed Records of Columbia County, Oregon.
6. Easement and right of way, including the terms and provisions thereof, given by Portland General Electric Co. to Pacific Power & Light Co. recorded December 3, 1968 in Book 171, page 773, Deed Records of Columbia County, Oregon.
7. Reservations of roads and minerals, including the terms and provisions thereof, contained in Deed from Columbia County, Oregon to J. R. Welter, recorded June 22, 1944 in Book 74, page 576, Deed Records of Columbia County, Oregon and in Deed to Thomas Welter and Jerry Welter, recorded October 26, 1964 in Book 156, page 512, Deed Records of Columbia County, Oregon.
8. Reservation of minerals in Columbia County as disclosed in Deed to Frank Welter and Ellen Olive Welter, recorded August 17, 1944 in Book 75, page 206, Deed Records of Columbia County, Oregon.
9. Water pipe line easement and right of way, including the terms and provisions thereof, given by Walter A. Furer, et ux to City of Prescott, recorded February 10, 1967 in Book 164, page 139, Deed Records of Columbia County, Oregon.
10. Excepting from the description herein all the following tracts heretofore conveyed to the City of Prescott by Deed recorded December 3, 1948 in Book 102, page 296 and by Deed recorded August 31, 1949 in Book 104, page 646 and by Deed recorded February 10, 1967 in Book 164, page 141, Deed Records of Columbia County, Oregon

TROJAN NUCLEAR PLANT  
CONTRACT SUMMARY

Spec. No.	Item	Vendor	No. Items	Issued For Bid	Bids Received	Award Date	Commence Cancellation Charges	Delivery	Estimated Cost	Contract Price Incl. Supplement
M-1	NSSS	Westinghouse	1	3-29-68	5-28-68	11-6-68	11-6-68	3-31-72	39,375,030	35,473,090
M-3	Turbine-Generator	General Elect.	1	3-29-68	5-28-68	10-3-68	12-1-69	10-9-72	29,616,400	27,953,980
M-4	Condenser w/o tubes	Westinghouse	7	6-13-69	7-22-69	10-3-69	10-15-69	2-1-72	1,550,000	1,635,283
M-5	Circ. Water Pumps	DeLaval	2	9-25-69	11-26-69	8-5-70		7-1-72	495,000	574,662
M-7	Condensate Pumps Heater Drain Pumps	Byron-Jackson Bingham/Wlmt.	2 2	7-7-69 7-7-69	7-31-69 7-31-69	11-18-69 11-18-69	1-1-70	6-1-72 8-1-71	350,000	310,346 142,886
M-8	Boiler Feed Pumps	Bingham/Wlmt.	2	9-8-69	10-8-69	11-20-69	6-1-70	7-24-72	150,000	152,840
M-9	Feed Pump Turbine Dr.	DeLaval	2	8-8-69	8-22-69	9-10-69	11-5-69	8-30-72	770,000	746,000
M-11	Feedwater Heaters	Sweco Westinghouse BLH	8 6 2	6-13-69	7-14-69	9-12-69	9-1-71 11-1-71 10-1-69	4-1-72	1,750,000	1,750,000 (799,220) (520,250) (328,937)
M-13	Condenser Tubes	Phelps Dodge	2,588,400	12-29-69	1-14-70	3-31-70	-	4-72	1,200,000	1,397,564
M-44	Solid Waste Baler	Consolidated Baling Mach. Co.	1	12-12-69	1-13-70	4-7-70	-	8-72	4,100	4,427
M-54	Turbine Bldg. Bridge Crane	Ederer Corp.	1	10-7-69	11-6-69	12-30-69	-	9-71	225,000	193,345
M-55	Polar Bridge Crane		1	1-15-70	2-17-70	-	-	-	280,000	280,000

\* Estimated amount.



TROJAN NUCLEAR PLANT  
 CONTRACT SUMMARY  
 Page 2

Spec. No.	Item	Vendor	No. Items	Issued For Bid (Re-issued)	Bids Received	Award Date	Commence Cancellation Charges	Delivery	Estimated Cost	Contract Price Incl. Supplements
M-28	Component Cooling Wtr. Heat Exchangers		2	7-16-70 (Re-issued)	8-4-70				120,000	120,000*
M-34	Radwaste Gas Compressors and Accessories		2	3-20-70	5-5-70				50,000	50,000*
M-56	Fuel Bldg. Bridge Crane		1	3-27-70	5-5-70				140,000	140,000*
M-29	Spent Fuel Pool Cooling Water Heat Exchanger		2	4-22-70	6-9-70				35,000	35,000*
M-53	Radwaste Water System Liquid Filters		8	5-8-70	6-11-70				11,000	11,000*
M-17	Service Water Pumps	Johnson Pump	3	5-13-70	6-16-70	9-16-70		5-1-72	180,000	100,216
M-35	Instrument Air Dryers & Filters	Kemp Co.	1	5-28-70	6-30-70	9-16-70		1-24-72	6,000	7,590
M-45	Fuel Pool Filters		6	(To be reissued)					8,000	8,000*
M-49	Fuel Pool Demineralizer		1	5-28-70	7-7-70				14,000	14,000*
M-33	Air Compressors & Accessories		3	6-10-70	7-8-70	9-15-70		1-24-72	45,000	41,042
M-37	Lube Oil Conditioner Filter Pump and Transfer Pumps		4	6-16-70	7-14-70	9-9-70	12-1-71	6-1-72	10,000	16,310
M-400	Temporary Fire Pumps		3	6-19-70 (Re-issued)	7-14-70				20,000	19,306
M-21	Radioactive Waste System Sump Pumps		4	8-3-70 (Re-issued)	8-20-70				14,000	14,000*

\*Estimated amount.

THOJAN NUCLEAR PLANT  
 CONTRACT SUMMARY  
 Page 3

Spec. No.	Item	Vendor	No. Items	Issued For Bid	Received	Award Date	Commence Cancellation Charges	Delivery	Estimated Cost	Contract Price Incl. Supplements
M-219	Balance of Plant Computer		1	7-13-70	8-27-70				400,000	400,000*
M-20	Fire Pumps		2	7-13-70	8-11-70				30,000	30,000*
M18	Component Cooling Water Pumps		3	9-10-70	10-22-70				55,000	55,000*
M65	Process Steam Boiler & Condensate Unit		5	8-14-70	9-24-70				48,000	48,000*
M46	Radwaste System Gas Tanks		5	9-11-70	10-27-70				75,000	75,000*
M40	Makeup Demineralizer Syst.		1	8-18-70	10-23-70				200,000	200,000*
M104	Shop Fabricated Stainless Steel Piping		1 Lot	9-8-70	10-20-70				120,000	120,000*
M50	Domestic Water Treatment		1	9-9-70	10-21-70				6,000	6,000*
M24	Misc. Radwaste Liquid Tanks		11	9-16-70**					300,000	300,000*
M39	Radwaste Syst. & Evaporator Accessories		1 unit	9-16-70**					150,000	150,000*

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\*Estimated amount.

\*\*Issued to Purchasing Agent.

TROJAN NUCLEAR PLANT  
 CONTRACT SUMMARY

Page 4

Spec. No.	Item	Vendor	No. Items	Issued For Bid	Bids Received	Award Date	Commence Cancellation Charges	Delivery	Estimated Cost	Contract Price Incl. Supplements
C-3	Sewage Pumping Station & Sewage Treatment Plant Equipment		2	5-15-70	6-11-70				35,000	35,000*
C8	Circulating Water Pipe		1 Lot	9-8-70					500,000	500,000*
C35	Structural Steel		5,550T	9-21-70	10-21-70				2,000,000	2,000,000*

\* Estimated amount.  
 \*\* Issued to Purchasing Agent.

TRJAN NUCLEAR PLANT  
 CONTRACT SUMMARY  
 Page 5

Spec. No.	Item	Vendor	No. Items	Issued For Bid	Bids Received	Award Date	Commence Cancellation Charges	Delivery	Estimated Cost	Contract Price Incl. Supplements
E-1	Main Step-Up Trsfmr.	McGraw-Edison	2	12-12-69	2-4-70	5-15-70	-	-	1,290,000	975,505
E-2	Unit Aux. Transformer	McGraw-Edison	1	3-27-70	4-29-70	7-21-70			120,000	91,450
E-5	Isophase Bus Duct	H. K. Porter	1	1-30-70	3-10-70	6-16-70	10-70	7-31-72	185,000	221,400
E-4	Unit Substation Transformer		2	7-16-70	8-18-70				100,000	100,000*

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\* Estimated amount.

TROJAN NUCLEAR PLANT  
CONTRACT SUMMARY

Page 6

Spec. No.	Item	Vendor	No. Items	Issued For Bid	Bids Received	Award Date	Commence Cancellation Charges	Delivery	Estimated Cost	Contract Price Incl. Supplement
F-07	Cooling Tower	Research-Cottrell	1	9-18-69	1-13-70	3-31-70	-	3-73	5,700,000	7,177,990
F-01 (C-5)	Site Gratings	Kiewit Sons'		12-16-69	2-3-70	2-18-70	-	-	2,250,000	2,235,090
F-17	Passenger & Freight Elevators	Otis Elevator	3	5-6-70	6-10-70	7-22-70			165,000	135,689
F-19	Containment Liner Plate		1	8-24-70	9-29-70				1,785,000	1,785,000
F-20	Containment Post Tensioning System		1	8-21-70	9-29-70				2,248,000	2,248,000
F-06	Heavy Lift Rigging		1	8-17-70	10-14-70				946,000	946,000
F-16	Furnishing and Delivery of Concrete		1	8-27-70	10-15-70				1,254,000	1,254,000
F-03	Construction Facilities		1	9-1-70	10-6-70				465,000	465,000
								Total	\$96,845,530	\$92,747,31

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\* Estimated amount.



**Portland General Electric Company**  
 Trojan Nuclear Plant  
 71760 Columbia River Hwy  
 Rainier, OR 97048  
 (503) 556-3713

March 27, 2003

VPN-021-2003

Trojan Nuclear Plant  
 Docket 50-344  
 License NPF-1

U. S. Nuclear Regulatory Commission  
 ATTN: Document Control Desk  
 Washington, D.C. 20555

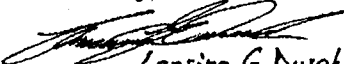
Annual Report of the Status of Decommissioning Funding for the  
 Trojan Nuclear Plant in Accordance with 10 CFR 50.75(f)(1)

In accordance with 10 CFR 50.75(f)(1), this letter transmits the Trojan Nuclear Plant co-owners' annual report of the status of decommissioning funding for Calendar Year 2002. The report, which is provided in Enclosure I to this letter, is based on the most recent analysis of the Trojan Nuclear Plant decommissioning cost estimate and funding plan as incorporated into Revision 16 of PGE-1061, "Trojan Nuclear Plant Decommissioning Plan and License Termination Plan (PGE-1078)."

For convenience, a copy of Section 5, "Update of Site-Specific Decommissioning Costs," of PGE-1061, Revision 16, is provided in Enclosure II to this letter. The decommissioning cost estimate and funding plan is updated to reflect actual expenditures and fund balances through December 31, 2002. The cost estimate revision also incorporates the actual inflation rate for 2002, which had been estimated in the previous cost estimate revision, and reflects current projections associated with staffing, radiological waste burial volumes, work schedules, and the schedule for transfer of the spent nuclear fuel to the dry storage facility.

If you have any questions regarding this correspondence, please contact Mr. Lansing G. Dusek of my staff at (503) 556-7409.

Sincerely,

  
 Lansing G. Dusek for  
 Stephen M. Quennoz  
 Vice President  
 Power Supply/Generation

VPN-021-2003

March 27, 2003

Page 2 of 2

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Page 2 of 22

Enclosures

c: S. W. Brown, NRC, NMSS  
Director, NRC Region IV, DNMS  
D. Stewart-Smith, OOE  
A. Bless, OOE

Annual Report of the Status of Decommissioning Funding for the  
Trojan Nuclear Plant (TNP) in Accordance with 10 CFR 50.75(f)(1)

As required by 10 CFR 50.75(f)(1), this report constitutes the TNP co-owners' annual report of the status of decommissioning funding for the TNP for Calendar Year 2002. The information provided herein is based on the most recent analysis of the TNP decommissioning cost estimate and funding plan as detailed in Section 5 of PGE-1061, "Trojan Nuclear Plant Decommissioning Plan and License Termination Plan (PGE-1078)," Revision 16. For convenience, a copy of Section 5, "Update of Site-Specific Decommissioning Costs," of PGE-1061, Revision 16, is provided in Enclosure II to VPN-021-2003 concurrently with this report.

10 CFR 50.75(f)(1) states, in part:

*Each power reactor licensee shall report, on a calendar-year basis, to the NRC...on the status of its decommissioning funding for each reactor or part of a reactor that it owns. The information in this report must include, at a minimum:*

*the amount of decommissioning funds estimated to be required pursuant to 10 CFR 50.75(b) and (c);*

*the amount accumulated to the end of the calendar year preceding the date of the report;*

*a schedule of the annual amounts remaining to be collected;*

*the assumptions used regarding rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections;*

*any contracts upon which the licensee is relying pursuant to paragraph (e)(1)(v) of this section;*

*any modifications occurring to a licensee's current method of providing financial assurance since the last submitted report; and*

*any material changes to trust agreements.*

...

*Any licensee for a plant that...has already closed (before the end of its licensed life), or for plants involved in mergers or acquisitions shall submit this report annually.*



This report addresses the requirements of 10 CFR 50.75(f)(1) for the TNP for Calendar Year 2002 as follows:

1. *The amount of decommissioning funds estimated to be required pursuant to 10 CFR 50.75(b) and (c).*

The amount of funds estimated to be required to decommission the TNP has been determined based on a TNP-specific cost estimate prepared by Portland General Electric Company (PGE). As indicated in PGE-1061, Section 5.1 and Table 5-1, the total costs in 1997 dollars are estimated to be approximately \$238,957,000 for radiological decommissioning activities, approximately \$42,263,000 for nonradiological decommissioning activities (site restoration), and approximately \$146,985,000 for dry spent fuel storage. Costs associated with securing and maintaining decommissioning financial assurance and bridging funds are projected to total approximately \$1,514,000. A detailed schedule of the decommissioning and spent fuel management costs, totaling approximately \$429,719,000 of decommissioning trust fund-related expenditures, is provided in Section 5.1 and Table 5-2 of PGE-1061.

2. *The amount accumulated to the end of the calendar year preceding the date of the report.*

The following table reflects the amount of decommissioning funds accumulated by the TNP co-owners through December 31, 2002. Each of the co-owners separately collect, through rates, the funds for decommissioning. Two of the three TNP co-owners (PGE and Pacific Power and Light [PP&L]) deposit these funds in external trust funds in accordance with 10 CFR 50.75(e)(1)(ii). As a federal government agency fulfilling the decommissioning funding obligations of the Eugene Water and Electric Board (EWEB), the third TNP co-owner and licensee, the Bonneville Power Administration (BPA) has provided a statement of intent, as allowed by 10 CFR 50.75(e)(1)(iv), that states that decommissioning funding will be provided as such funds are needed. Thus, BPA is not required to accumulate funds in an external trust.<sup>1</sup> Additional details of the TNP decommissioning funding plans and schedules for each of the co-owners are provided in Section 5.3 of PGE-1061.

<sup>1</sup> A copy of the BPA's Statement of Intent, dated March 21, 2001, was forwarded to the NRC on March 29, 2001, as Enclosure III to PGE letter VPN-016-2001.

Status of Decommissioning Trust Funds  
As of December 31, 2002

TNP Co-Owner	Fund Balance as of 12/31/2002
Portland General Electric Company	\$27,941,000 <sup>a</sup>
Eugene Water & Electric Board/ Bonneville Power Administration	N/A <sup>b</sup>
Pacific Power & Light	\$1,734,000 <sup>a</sup>
<b>Total</b>	<b>\$29,675,000</b>

<sup>a</sup> The 2002 end-of-year trust fund balance includes an adjustment for trust expenditures incurred in November and December 2002 that were not paid out of the trust in 2002.

<sup>b</sup> BPA provides decommissioning funding from its operating budget as such funds are needed. Financial assurance is provided by a Statement of Intent dated March 21, 2001. Therefore, no external trust fund is required.

3. *A schedule of the annual amounts remaining to be collected.*

The decommissioning funding cash flow for each of the TNP co-owners is described in Section 5.3 and quantified in Tables 5-4 through 5-6 of PGE-1061. As detailed in Section 5.3.2 of PGE-1061, each of the co-owners maintains a collection schedule that ensures that each co-owner's portion of the total decommissioning activity expenditures will be fully funded. These funding schedules are based on funding requirements for both radiological and nonradiological decommissioning costs, as well as financing costs and specific spent fuel management costs including planning, design, construction, operation and maintenance (O&M), and decommissioning of an Independent Spent Fuel Storage Installation (ISFSI). The collection schedules do not include funding for Spent Fuel Pool O&M costs since these costs are being paid with O&M budget funds rather than decommissioning trust funds.

4. *The assumptions used regarding rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections.*

The following table provides the TNP co-owners' assumptions regarding escalation, earnings, and interest rates used to project the decommissioning cost and funding schedules as reflected in Section 5 of PGE-1061.

Assumptions Regarding  
 Escalation, Earnings, and Interest Rates

TNP Co-Owner	Escalation Factor <sup>a</sup> (%)	Trust Fund Earnings Rate <sup>b</sup> (%)	Bridge Loan Interest Rate <sup>c</sup> (%)	Line of Credit Fees <sup>d</sup> (%)
PGE	2.79	<sup>e</sup> 5.18 <sup>f</sup> 4.66	<sup>g</sup> 7.05	0.55
BPA/EWEB	2.79	<sup>h</sup> N/A	N/A	N/A
PP&L	2.79	3.0	N/A	1.0

<sup>a</sup> The escalation rate assumption of 2.79 percent represents the average of WEFA projected inflation rates for 2003 through 2019.

<sup>b</sup> Each TNP co-owner assumed a trust fund earnings rate based on recent fund earning performance with consideration for projected near-term growth and conservatism.

<sup>c</sup> Bridge loans for BPA and PP&L are not projected to be necessary.

<sup>d</sup> BPA will continue to use a Statement of Intent, rather than secure a line of credit, to provide financial assurance in accordance with 10 CFR 50.75(e)(1)(iv).

<sup>e</sup> This rate is applied to the qualified portion of PGE's trust fund.

<sup>f</sup> This rate is applied to the non-qualified portion of PGE's trust fund.

<sup>g</sup> The yield spread portion of this value is the average of the WEFA forecasted 5-year note for 2004 and 2005 less projected inflation.

<sup>h</sup> BPA provides decommissioning funding from its operating budget as such funds are needed. Financial assurance is provided by a Statement of Intent dated March 21, 2001. Therefore, no external trust fund is required.

5. *Any contracts upon which the licensee is relying pursuant to paragraph (e)(1)(v) of this section.*

The TNP co-owners do not rely on contractual obligations from customers to satisfy the financial assurance stipulations of 10 CFR 50.75(e)(1).

6. *Any modifications occurring to a licensee's current method of providing financial assurance since the last submitted report.*

Since the last submitted report, no modifications have been made to the TNP co-owners' current methods of providing financial assurance that adequate funds will be available to complete radiological decommissioning of the TNP site. Specifically, both PGE and PP&L continue to maintain financial assurance in the form of an external trust fund in accordance with 10 CFR 50.75(e)(1)(ii), and BPA continues to maintain financial assurance in the form of a letter of credit in accordance with 10 CFR 50.75(e)(1)(iv).

7. *Any material changes to trust agreements.*

PGE and PP&L have not made any material changes to the decommissioning trust agreements since the last funding plan submittal. As stated previously, BPA provides financial assurance in the form of a statement of intent, and thus is not required to maintain trust agreements to provide financial assurance for TNP decommissioning.

**Enclosure II to VPN-021-2003**

**Section 5, "Update of Site-Specific Decommissioning Costs," of  
PGE-1061, "Trojan Nuclear Plant Decommissioning Plan and License  
Termination Plan (PGE-1078)," Revision 16**

TROJAN DECOMMISSIONING PLAN AND LICENSE TERMINATION PLAN**5. UPDATE OF SITE-SPECIFIC DECOMMISSIONING COSTS**

In accordance with Paragraphs (a)(4) and (a)(9)(ii)(F) of 10 CFR 50.82 (Reference 5-1), and consistent with the guidance of Regulatory Guide 1.179 (Reference 5-2), the TNP-specific cost estimate and funding plan as incorporated into this section provides:

1. An updated estimate of total and remaining TNP decommissioning costs;
2. A comparison of the estimated costs with present funds set aside for decommissioning; and
3. The plan for assuring the availability of adequate funds for completion of decommissioning and release of the TNP site for unrestricted use.

**5.1 DECOMMISSIONING COST ESTIMATE**

This section provides the results of and basis for a cost estimate prepared by PGE with assistance from TLG for the decommissioning of TNP. Incorporated into this cost estimate are costs of activities involved in radiological decommissioning necessary for termination of TNP's Part 50 license, as well as expenditures necessary to complete nonradiological site restoration activities. The costs of removal and disposal of nonradioactive structures and materials beyond that necessary for license termination have been identified separately from radiological decommissioning costs.

Also separately identified are cost projections and funding requirements for the onsite management of irradiated fuel until possession and title of the irradiated fuel is transferred to DOE for ultimate disposal. The description of the spent fuel management costs and associated funding plan provided in this section, together with the description of the spent fuel management program in Section 3.3.1, fulfill the requirements of 10 CFR 50.54(bb).

**5.1.1 COST ESTIMATE RESULTS**

Summarizing the results of the TNP cost estimate, Table 5-1 provides estimates of total decommissioning costs as well as decommissioning costs that remain as of January 1, 2003. As indicated in Table 5-1, the costs (in 1997 dollars) for the selected decommissioning alternative are estimated to total approximately \$238,957,000 for radiological decommissioning activities, approximately \$42,263,000 for nonradiological decommissioning activities (site restoration), and approximately \$146,985,000 for dry spent fuel storage. Costs associated with securing and maintaining decommissioning financial assurance and bridging funds are projected to total approximately \$1,514,000. A detailed schedule of TNP's decommissioning and spent fuel management costs, totaling approximately \$429,719,000 of decommissioning fund-related expenditures, is provided in Table 5-2 and described in Section 5.1.2.

**5.1.2 COST ESTIMATE DESCRIPTION**

The initial Decommissioning Plan decommissioning cost estimate was based largely on the TNP-specific cost estimate performed for PGE by TLG Services, Inc. in May 1994. The methodology used to develop the cost estimate followed the approach presented in

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AIF/NESP-036, "Guidelines to Producing Decommissioning Cost Estimates" (Reference 5-3) and the DOE "Decommissioning Handbook" (Reference 5-4). These guidance documents utilize a unit cost factor method for estimating decommissioning activity costs. Unit cost factors incorporate site-specific considerations whenever practicable. Using plant drawings and inventory documents, quantities and volumes of the equipment and material to be removed during decommissioning were estimated. Unit cost factors were applied to the volumes and quantities to estimate the "activity dependent" costs. "Period dependent" costs were determined from a critical path schedule based on the removal activity duration.

At the end of each year, PGE updates the decommissioning cost estimate based on actual decommissioning progress and with an estimate of remaining costs based on the best available information about the remaining scope of the decommissioning effort. The update generally results in changes to the timing of fund expenditures, and may reflect changes to the scope of major projects. The cost estimate reflects updated staffing requirements and work/activity schedules, remaining scheduled decommissioning equipment removal efforts, adjustments for current radioactive waste disposal volumes and costs, and an update of the estimate to disposition non-radiological hazards.

The results of PGE's decommissioning cost estimate have been incorporated into Table 5-2, which provides a comprehensive expenditure schedule for the decommissioning of TNP. This table incorporates an annual breakdown of projected costs associated with radiological and nonradiological decommissioning, spent fuel management, and decommissioning expenditure financing activities. The decommissioning cost estimate expenditure schedule contained in Table 5-2 is described in the remainder of this section.

#### 5.1.2.1 Radiological Decommissioning Costs

The cost schedule for radiological decommissioning activities is incorporated into Table 5-2, which reflects the results of the decommissioning cost estimate for TNP. Consistent with current NRC policy, the TNP decommissioning cost estimate considers radiological decommissioning costs to be only those costs associated with normal decommissioning activities necessary for termination of the Part 50 license and release of the site for unrestricted use. The decommissioning cost estimate does not include in radiological decommissioning costs those costs associated with spent fuel management or the disposal of nonradioactive structures and materials beyond that necessary to terminate TNP's Part 50 license.

Radiological decommissioning activity costs are separately identified in Table 5-2 as "DECON/License Termination." Burial costs were derived from PGE modeling and analysis of low-level radioactive waste disposal costs as updated in early 1999, which more conservatively reflect projected burial rates. Contingencies were applied to each area of the cost estimate (i.e., decontamination and dismantlement, waste disposal, final survey, etc.) at appropriate rates. No credit was taken for equipment salvage value.

Standard ongoing financial controls have been established and executed to ensure funds are expended consistent with the provisions of 10 CFR 50.82(a)(8). Throughout the budgetary process and budget year, costs associated with new projects or activities are evaluated to determine their correct cost classification, i.e., fuel management, radiological, nonradiological decommissioning, capital, etc. As a result, only costs which meet the intent of this TNP

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Decommissioning Plan and License Termination Plan are submitted for reimbursement from the decommissioning trust. Periodically, variances between the estimate and actual costs will be reviewed as they relate to the total cost estimate to provide assurance that the cost estimate continues to be reasonable. This complies with 10 CFR 50.82(a)(8)(i)(A). In addition, PGE corporate finance personnel review the TNP co-owners' trust fund activity and balance periodically, as applicable. Any significant activity which is inconsistent with this Decommissioning Plan and License Termination Plan would be brought to the attention of TNP management.

The decommissioning cost estimate reflects costs in 1997 dollars, and has been updated to account for work performed through 2002 where TNP expended funds for decommissioning activities. The decommissioning cost estimate reflects updated staffing requirements and work/activity schedules, remaining scheduled decommissioning equipment removal efforts, and adjustments for radioactive waste disposal volumes and costs.

Costs required to maintain spent fuel in a safe storage condition are funded by Operation and Maintenance (O&M) funds rather than by decommissioning funds while the spent fuel remains in wet storage. Once the spent fuel is transferred to dry storage, there are sufficient decommissioning fund annual contributions to cover annual costs. This is described in Sections 5.2 and 5.3.2 and Table 5-2. This complies with 10 CFR 50.82(a)(8)(i)(B).

In accordance with 10 CFR 50.82(a)(8)(i)(C) and 10 CFR 50.75(e) (Reference 5-5), the TNP co-owners periodically assess the financial assurance amount required to complete radiological decommissioning. The established financial assurance mechanisms (e.g., external trust fund and/or letter of credit) are adjusted as necessary to ensure the completion of radiological decommissioning. Financial assurance is described in Section 5.3. "Bridge" funds are also described in Section 5.3.

#### 5.1.2.2 Nonradiological Decommissioning Costs

Although not required by NRC regulations, the decommissioning cost estimate for TNP incorporates nonradiological decommissioning costs, as indicated in Table 5-2. The TNP decommissioning cost estimate considers nonradiological decommissioning costs to be those costs associated with site remediation and demolition and removal of uncontaminated structures. The decommissioning cost estimate does not include in nonradiological decommissioning costs those costs associated with spent fuel management or radiological decommissioning activities.

#### 5.1.2.3 Spent Fuel Management Costs

Implementation costs associated with spent fuel management are reflected in the projected cost schedule for the onsite management of irradiated fuel detailed in Table 5-2. Spent fuel management costs begin with ongoing spent fuel pool operation, surveillance, and maintenance activity costs, and continue through ISFSI planning, construction, and operation until possession and title of the irradiated fuel is transferred to the DOE for ultimate disposal (assumed in this estimate to be completed in 2018). As indicated in Table 5-2, spent fuel pool operation expenditures are projected to end upon transfer of the spent fuel pool contents to the ISFSI. Costs associated with onsite management of the spent fuel will then involve ISFSI operation, maintenance, and surveillance expenditures. Finally, upon transfer of the ISFSI contents to an



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offsite repository, spent fuel management costs end in 2018 with final expenditures necessary for ISFSI decommissioning activities.

PGE has analyzed spent fuel operations and maintenance costs related to storage in both the spent fuel pool and the ISFSI. The methodology used in this analysis considered plant-specific values, as applicable, for labor, material, and outside professional services requirements as well as for other distributed items such as overheads, property and liability insurance, regulatory fees, fire protection activities, and power usage. The results of this analysis were then incorporated into the decommissioning cost study.

#### 5.1.2.4 Financial Activity Costs

Additional costs may be incurred by each TNP co-owner as necessary during decommissioning to secure and maintain assurance that adequate funds will be available to complete radiological decommissioning of the TNP site, and to secure loans or other "bridging" mechanisms to augment existing funds to cover near-term decommissioning costs. The financial assurance costs (e.g., letter of credit) indicated in Table 5-2 are based on the basis points and projected amount of required financial assurance appropriate for each co-owner as described in Section 5.3, "Decommissioning Funding Plan." The loan costs in Table 5-2 are based on the interest rate and loan amount appropriate for each TNP co-owner requiring financial bridging as described in Section 5.3. The method that each co-owner will use to provide the required financial assurance mechanism and bridging funds is described in detail in Section 5.3.

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Spent fuel management costs are segregated in Table 5-2 into spent fuel pool operation costs and dry storage (ISFSI) costs. Ongoing costs associated with the storage of spent fuel and other high-level radioactive waste in the spent fuel pool are currently incorporated into the TNP O&M budget, and are expected to continue to be funded in this manner until the contents of the spent fuel pool are transferred to the ISFSI. Costs associated with dry storage activities, including ISFSI planning, construction, O&M, and decommissioning, as reflected under the column heading "Dry Storage" in Table 5-2, will be funded with decommissioning trust funds collected for that purpose. Additional details on the decommissioning trust fund collections for each TNP co-owner are provided in Section 5.3.

TROJAN DECOMMISSIONING PLAN AND LICENSE TERMINATION PLAN5.3 DECOMMISSIONING FUNDING PLAN

## 5.3.1 CURRENT DECOMMISSIONING FUNDING CAPABILITIES

Each of the TNP co-owners separately collect through rates the funds for the decommissioning of TNP and the Trojan ISFSI. PGE and PP&L deposit these funds in external trust funds in accordance with 10 CFR 50.75(e), while the BPA provides EWEB's portion of TNP and Trojan ISFSI decommissioning funds as necessary as described in Section 5.3.2.2. Because the TNP was shut down prematurely, the external trust funds established by PGE and PP&L currently contain only a portion of the total amount needed for site radiological decommissioning. Table 5-3 summarizes the status of PGE's and PP&L's decommissioning trust funds as of December 31, 2002.

The NRC's general policy requires, prior to the start of the Decontamination and Dismantlement Period, either funds needed for decommissioning (as the term "decommission" is defined in 10 CFR 50.2, "Definitions") to be available or an appropriate financial vehicle to be secured and maintained that will assure the availability of adequate funds for completion of radiological decommissioning. As indicated above, the trusts established by PGE and PP&L for decommissioning will not contain the funds necessary for completion of radiological decommissioning prior to the start of the Decontamination and Dismantlement Period. Thus prior to commencing this period, PGE and PP&L are required to secure an additional financial assurance mechanism allowed by 10 CFR 50.75(e). This financial assurance must be maintained until termination of TNP's Part 50 license. Furthermore, during the Decontamination and Dismantlement Period, a decommissioning trust fund balance may be reduced to a point where it will be necessary in certain instances to borrow or otherwise provide "bridging" funds to complete decontamination activities and allow scheduled collections to restore the decommissioning trust fund balance.

## 5.3.2 TNP CO-OWNERS' DECOMMISSIONING FUNDING PLANS

Each of the TNP co-owners has established a program in conjunction with specified goals for the collection of funds for the decommissioning of TNP. Each TNP co-owner maintains a decommissioning fund collection schedule which ensures that each co-owner's portion of the decommissioning activity expenditures will be fully funded. These funding schedules are based on funding requirements for both radiological and nonradiological decommissioning costs, as well as financing costs and specific spent fuel management costs including planning, design, construction, O&M, and decommissioning of an ISFSI. These collection schedules do not include funding for spent fuel pool O&M costs since these costs are being paid with O&M budget funds rather than decommissioning funds. The decommissioning funding cash flow for each of the TNP co-owners, based on the expenditure schedule in Table 5-2 and the co-owner contribution schedules, is described below.

5.3.2.1 PGE Funding

Table 5-4 provides PGE's decommissioning funding cash flow in nominal dollars (2.79% escalation) during decommissioning. Funded from an external trust fund, the expenditures described in this table are PGE's share (67.5%) of the expenditures described in Table 5-2, with the exception of spent fuel pool O&M costs since these costs are being paid with

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O&M budget funds rather than decommissioning funds. The funding schedule described in Table 5-4 ensures that PGE's portion of the decommissioning activity expenditures will be fully funded.

Projected requirements for bridging funds have been incorporated into PGE's decommissioning funding cash flow. As previously discussed, PGE's external trust fund currently contains only a portion of the total amount needed for PGE's share of site radiological decommissioning costs. Based on the decommissioning fund cash flow analysis presented in Table 5-4, bridging funds are anticipated to be required in the year 2004 to complete decontamination activities and allow scheduled collections to restore the decommissioning trust fund balance. Projected interest on bridging funds has been incorporated into PGE's decommissioning funding cash flow as indicated in Table 5-4.

In addition, because the trust established for decommissioning will not contain the funds necessary for completion of radiological decommissioning prior to the start of the Decontamination and Dismantlement Period, PGE must secure an additional financial assurance mechanism allowed by 10 CFR 50.75, and maintain this assurance until termination of TNP's Part 50 license. Therefore, upon commencement of the Decontamination and Dismantlement Period, PGE's financial assurance mechanism will consist of the decommissioning trust fund balance together with a letter of credit. Because financial assurance will be maintained only for radiological decommissioning activities, the methodology used to determine the size of the letter of credit ensures that if a given amount of the decommissioning trust fund is used for purposes other than radiological decommissioning activities during a current year, the portion of the financial assurance provided by the letter of credit must be increased by the same amount. This methodology can be summarized as follows:

$$L_{fa} = T_1 - T_2 + T_3 \quad \text{where}$$

- $L_{fa}$  = Letter of Credit Portion of Financial Assurance Needed for Current Year
- $T_1$  = Total costs of remaining radiological decommissioning activities
- $T_2$  = Current decommissioning trust fund balance
- $T_3$  = Portion of trust balance planned for non-radiological costs during current year

Financial assurance for remaining radiological decommissioning activities will be calculated at the beginning of each year and will be periodically reviewed during each year to ensure that an adequate level of financial assurance is maintained.

### 5.3.2.2 EWEB/BPA Funding

BPA is obligated through Net Billing Agreements to pay costs associated with EWEB's share of TNP, including decommissioning and spent fuel management costs. BPA fulfills the decommissioning funding obligations of EWEB, including providing financial assurance for EWEB's portion of decommissioning costs in a manner stipulated in 10 CFR 50.75(e)(1)(iv) for Federal government licensees as detailed further below. Table 5-5 provides BPA/EWEB's decommissioning funding cash flow in nominal dollars (2.79% escalation) during decommissioning. The expenditures described in this table are BPA/EWEB's share (30%) of the expenditures described in Table 5-2, with the exception of spent fuel pool O&M costs since these costs are being paid with O&M budget funds rather than decommissioning funds. The funding

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schedule described in Table 5-5 ensures that BPA/EWEB's portion of the decommissioning activity expenditures will be fully funded.

As allowed by 10 CFR 50.75(e)(1)(iv), BPA, as a Federal government entity fulfilling the decommissioning funding obligations of EWEB, a licensee, provides financial assurance in the form of a statement of intent. The statement of intent contains a reference to the TNP decommissioning cost estimate described in Section 5.1, indicating that funds for radiological decommissioning of the TNP and Trojan ISFSI will be obtained when necessary.

### 5.3.2.3 PP&L Funding

Table 5-6 provides PP&L's decommissioning funding cash flow in nominal dollars (2.79% escalation) during decommissioning. Funded from an external trust fund, the expenditures described in this table are PP&L's share (2.5%) of the expenditures described in Table 5-2, with the exception of spent fuel pool O&M costs since these costs are being paid with O&M budget funds rather than decommissioning funds. The funding schedule described in Table 5-6 ensures that PP&L's portion of the decommissioning activity expenditures will be fully funded.

Based on the decommissioning funding cash flow analysis presented in Table 5-6, PP&L's decommissioning trust balance will remain adequately funded during decommissioning such that bridging funds will not be required. However, because the trust established for decommissioning will not contain the funds necessary for completion of radiological decommissioning prior to the start of the Decontamination and Dismantlement Period, PP&L must secure an additional financial assurance mechanism allowed by 10 CFR 50.75, and maintain this assurance until termination of TNP's Part 50 license. Therefore, upon commencement of the Decontamination and Dismantlement Period, PP&L's financial assurance mechanism will consist of the decommissioning trust fund balance together with a letter of credit. The methodology for determining the size of the letter of credit is as described in Section 5.3.2.1, "PGE Funding."

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Table 5-1

Estimate of Decommissioning Costs  
(1997 dollars)

	Total (Start-to-Finish) Costs	Total Costs Remaining As of January 1, 2003
<b>Radiological (NRC) Decommissioning Costs</b>		
Reactor Vessel and Internals Removal and Disposal	21,495,000	0
Dismantlement, Decontamination, and Remediation	162,828,000	46,837,000
Waste Disposal	41,878,000	9,059,000
Final Survey	12,756,000	8,784,000
Total	238,957,000	64,680,000
<b>Nonradiological Decommissioning Costs</b>		
Site Restoration	42,263,000	39,253,000
Total	42,263,000	39,253,000
<b>Dry Spent Fuel Management Costs</b>		
ISFSI Construction and Decommissioning	86,683,000	23,407,000
ISFSI Operation and Maintenance	60,302,000	58,170,000
Total	146,985,000	81,577,000
<b>Financing Costs</b>		
Financial Assurance	209,000	209,000
Decommissioning Bridge Loans	1,305,000	1,305,000
Total	1,514,000	1,514,000
Total Decommissioning Expenditures	\$ 429,719,000	\$ 187,024,000

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**Table 5-2**  
Decommissioning Cost Estimate for Trojan Nuclear Plant  
Itemized Decommissioning Expenditure Schedule  
(1997 \$ x 1000)

Year	Total Decommissioning Expenditures						Radiological Decommissioning			Nonradiological Decommissioning			Spent Fuel Management			Financing Activities	
	Total Radiological Decommissioning Expenditures	Total Nonradiological Decommissioning Expenditures	Total Spent Fuel Management Expenditures	Total Financing Activity Expenditures	Total Combined Decommissioning Expenditures	DECON / License Termination	Remediation Activities / Site Restoration	SFP Spent Fuel Pool O & M	ISFSI Construction & Decommissioning	ISFSI O & M	Costs for Maintaining Financial Assurance	Costs of Loans	Dry Storage		ISFSI O & M		
													ISFSI Construction & Decommissioning	ISFSI O & M			
1993	2,873	0	0	0	2,873	2,673	0	0	0	0	0	0	0	0	0	0	
1994	5,320	68	0	0	5,388	5,320	68	0	0	0	0	0	0	0	0	0	
1995	15,896	45	1,100	0	17,041	15,896	46	0	0	0	0	0	0	0	0	0	
1996	9,087	243	3,144	0	12,474	9,087	243	0	0	0	0	0	0	0	0	0	
1997	19,238	350	7,974	0	27,562	19,238	350	0	0	0	0	0	0	0	0	0	
1998	34,321	62	9,703	0	44,086	34,321	62	0	0	0	0	0	0	0	0	0	
1999	37,970	1,313	17,978	0	57,262	37,970	1,313	0	0	0	0	0	0	0	0	0	
2000	33,180	777	3,354	0	37,311	33,180	777	0	0	0	0	0	0	0	0	0	
2001	8,363	198	6,725	0	15,286	8,363	198	0	0	0	0	0	0	0	0	0	
2002	8,230	(46)	15,429	0	23,613	8,230	(46)	0	0	0	0	0	0	0	0	0	
2003	20,211	1,213	19,516	0	40,940	20,211	1,213	0	0	0	0	0	0	0	0	0	
2004	33,442	4,270	3,918	417	42,048	33,442	4,270	0	0	0	0	0	0	0	0	0	
2005	11,026	216	3,894	592	15,728	11,026	216	0	0	0	0	0	0	0	0	0	
2006	0	0	3,872	471	4,343	0	0	0	0	0	0	0	0	0	0	0	
2007	0	0	3,848	32	3,878	0	0	0	0	0	0	0	0	0	0	0	
2008	0	0	3,670	2	3,672	0	0	0	0	0	0	0	0	0	0	0	
2009	0	0	3,821	0	3,821	0	0	0	0	0	0	0	0	0	0	0	
2010	0	0	3,573	0	3,573	0	0	0	0	0	0	0	0	0	0	0	
2011	0	0	3,516	0	3,516	0	0	0	0	0	0	0	0	0	0	0	
2012	0	0	3,525	0	3,525	0	0	0	0	0	0	0	0	0	0	0	
2013	0	0	3,516	0	3,516	0	0	0	0	0	0	0	0	0	0	0	
2014	0	0	3,516	0	3,516	0	0	0	0	0	0	0	0	0	0	0	
2015	0	0	3,516	0	3,516	0	0	0	0	0	0	0	0	0	0	0	
2016	0	0	3,516	0	3,516	0	0	0	0	0	0	0	0	0	0	0	
2017	0	0	3,491	0	3,491	0	0	0	0	0	0	0	0	0	0	0	
2018	0	17,258	3,516	0	20,774	0	0	0	0	0	0	0	0	0	0	0	
2019	0	18,298	11,070	0	29,368	0	0	0	0	0	0	0	0	0	0	0	
2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Total</b>	<b>238,957</b>	<b>42,263</b>	<b>146,985</b>	<b>1,514</b>	<b>429,719</b>	<b>238,957</b>	<b>42,263</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>60,302</b>	<b>209</b>	<b>1,305</b>	

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Table 5-3

**Status of Decommissioning Trust Funds  
as of December 31, 2002**

Trojan Co-Owner	Fund Balance as of 12/31/02
Portland General Electric (PGE)	\$27,941,000 <sup>a</sup>
Eugene Water & Electric (EWEB)/ Bonneville Power Administration (BPA)	N/A <sup>b</sup>
Pacific Power & Light (PP&L)	\$1,734,000 <sup>a</sup>
<b>Total</b>	<b>\$29,675,000</b>

<sup>a</sup> The 2002 end-of-year trust fund balance includes an adjustment for trust expenditures incurred in November and December 2002 that were not paid out of the trust in 2002.

<sup>b</sup> BPA provides decommissioning funding from its operating budget as such funds are needed. Financial assurance is provided by a Statement of Intent, dated March 21, 2001. Therefore, no external trust fund is required.



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Table 5-4  
 Portland General Electric  
 Decommissioning Funding Cash Flow  
 (Nominal \$ x 1000)

Year	PGE Trust Fund Expenditures A	PGE Trust Fund Contributions B	PGE Trust Fund Net Earnings C	PGE Trust Fund EOY Balance D	Bridge Funds E	Bridge Funds Interest F	Letter of Credit G	Letter of Credit Fee H
1996								
1997								
1998								
1999								
2000								
2001								
2002				27,941				
2003	(31,853)	14,041	387	10,516				
2004	(33,295)	14,041	0	0	8,913	314	31,844	(175)
2005	(12,443)	14,041	0	0	(1,530)	651	12,443	(68)
2006	(3,273)	14,041	93	2,513	(8,348)	589		
2007	(3,340)	14,041	487	13,112	(589)	41		
2008	(3,277)	14,041	923	24,758	(41)	3		
2009	(3,323)	14,041	1,375	36,848	(3)			
2010	(3,371)	14,041	1,844	49,362				
2011	(3,409)	13,924	2,324	62,201				
2012	(3,513)		2,265	60,953				
2013	(3,602)		2,200	59,551				
2014	(3,703)		2,135	57,983				
2015	(3,806)		2,071	56,248				
2016	(3,884)		2,002	54,366				
2017	(4,021)		1,925	52,270				
2018	(33,303)		725	19,692				
2019	(19,692)			0				
2020								
2021								
2022								
2023								
<b>Total</b>	<b>(173,108)</b>	<b>126,252</b>	<b>20,756</b>		<b>(1,598)</b>	<b>1,598</b>		<b>(243)</b>

NOTE 1 : Positive numbers indicate cash flow into trust fund; negative numbers indicate cash flow out of trust fund.  
 NOTE 2 : Current EOY balance = previous year EOY balance + current year A + B + C + E + H.

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Table 5-5  
EWEB / BPA  
Decommissioning Funding Annual Cash Obligations  
(Nominal \$ x 1000)

Year	Eugene Water and Electric Board / Bonneville Power Administration Decommissioning Obligations
1996	
1997	
1998	
1999	
2000	
2001	
2002	
2003	14,157
2004	14,798
2005	5,530
2006	1,454
2007	1,485
2008	1,456
2009	1,477
2010	1,498
2011	1,515
2012	1,562
2013	1,601
2014	1,646
2015	1,691
2016	1,727
2017	1,787
2018	14,801
2019	8,752
2020	
2021	
2022	
2023	
Total	76,937

NOTE 1: BPA provides decommissioning funding from its operating budget as such funds are needed. Financial assurance is provided by a Statement of Intent, dated March 21, 2001. Therefore, no external trust fund is required.

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**Table 5-6**  
**Pacific Power & Light**  
**Decommissioning Funding Cash Flow**  
**(Nominal \$ x 1000)**

Year	PP & L Trust Fund Expenditures A	PP & L Trust Fund Contributions B	PP & L Trust Fund Net Earnings C	PP & L Trust Fund EOY Balance D	Bridge Funds E	Bridge Funds Interest F	Letter of Credit G	Letter of Credit Fee H
1996								
1997								
1998								
1999								
2000								
2001								
2002				1,734				
2003	(1,179)	438	41	1,034				
2004	(1,232)	438	19	254			535	(5)
2005	(462)	438	7	235			209	(2)
2006	(121)	438	12	564				
2007	(124)	438	22	900				
2008	(121)	438	32	1,249				
2009	(123)	438	42	1,606				
2010	(125)	438	53	1,972				
2011	(126)	437	64	2,347				
2012	(130)		68	2,285				
2013	(134)		67	2,218				
2014	(137)		64	2,145				
2015	(141)		62	2,066				
2016	(144)		60	1,982				
2017	(149)		57	1,890				
2018	(1,234)		38	694				
2019	(704)		10	0				
2020								
2021								
2022								
2023								
<b>Total</b>	<b>(6,386)</b>	<b>3,941</b>	<b>718</b>					<b>(7)</b>

NOTE 1: Positive numbers indicate cash flow into trust fund; negative numbers indicate cash flow out of trust fund.

NOTE 2: Current EOY balance = previous year EOY balance + current year A + B + C.



**Portland General Electric Company**  
*Trojan Nuclear Plant*  
 71760 Columbia River Hwy  
 Rainier, OR 97048  
 (503) 556-3713

February 28, 2003

VPN-010-2003

Trojan Nuclear Plant  
 Docket 50-344  
 License No. NPF-1

Director of Nuclear Material Safety and Safeguards  
 U.S. Nuclear Regulatory Commission  
 Washington, D.C. 20555

Dear Sirs:

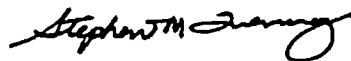
Request for Further Exemption from the Financial Protection Requirements of  
 10 CFR 140.11(a)(4) and Related Amendment to Indemnity Agreement No. B-78

In accordance with 10 CFR 140.8, this letter transmits Portland General Electric Company's (PGE's) request for an exemption from the financial protection requirements of 10 CFR 140.11(a)(4) as currently applied to the Trojan Nuclear Plant as a result of an exemption issued by the U.S. Nuclear Regulatory Commission (NRC) on November 2, 1995. This letter also requests an amendment to Indemnity Agreement No. B-78 between PGE, Eugene Water & Electric Board, Pacific Power & Light Company (PacifiCorp), and the NRC. The requested exemption and amendment to Indemnity Agreement No. B-78 will allow a more equitable allocation of financial risk by reducing the primary financial protection requirement currently applied to the Trojan Nuclear Plant from \$100 million to \$25 million.

PGE requests that the exemption to the financial protection requirements of 10 CFR 140.11(a)(4) and the associated amendment to Indemnity Agreement No. B-78 be approved by and made effective upon completion of the transfer of spent nuclear fuel from the Trojan Nuclear Plant Spent Fuel Pool to the Trojan Independent Spent Fuel Storage Installation (ISFSI). The spent nuclear fuel transfer to the Trojan ISFSI is currently scheduled to be completed by October 31, 2003.

If you have any questions regarding this correspondence, please contact Mr. Lansing G. Dusek of my staff at (503) 556-7409.

Sincerely,



Stephen M. Quennoz  
Vice President,  
Power Supply/Generation

**Attachment**

- c: US NRC Document Control Desk  
S. Brown, NRC, NMSS  
Director, DNMS, NRC Region IV  
D. Stewart-Smith, OOE

Request for Exemption from the  
Financial Protection Requirements of 10 CFR 140.11(a)(4)

REQUEST FOR SPECIFIC EXEMPTION

Pursuant to the requirements of 10 CFR 140.8, PGE is requesting specific exemption to the financial protection requirements of 10 CFR 140.11(a)(4) as these requirements are applied to the Trojan Nuclear Plant as a result of a previous NRC exemption dated November 2, 1995.<sup>1</sup> Specifically, this exemption request proposes to reduce the primary financial protection requirement applied to the Trojan Nuclear Plant from \$100 million to \$25 million following the completion of the transfer of spent nuclear fuel from the Spent Fuel Pool to the Trojan Independent Spent Fuel Storage Installation (ISFSI)<sup>2</sup>. The requested exemption would allow a more equitable allocation of financial risk and would eliminate the potential for unwarranted financial burden on ratepayers associated with the payment of insurance premiums for coverage no longer commensurate with the absence of significant offsite radiological risk remaining at the Trojan Nuclear Plant site.

As discussed in detail below, the exemption to 10 CFR 140.11(a)(4) requested herein – to reduce the primary financial protection requirement applied to the Trojan Nuclear Plant from \$100 million to \$25 million following the completion of the transfer of spent nuclear fuel from the Spent Fuel Pool to the Trojan ISFSI – is authorized by law and otherwise in the public interest, and is provided for by existing NRC policy. This reduced amount would continue to conservatively account for the continuing potential for claims based on asserted offsite consequences by members of the public, while minimizing the likelihood that Federal Government indemnity would be exercised for satisfaction of claims for damages. This amount also is consistent with the requirements of Section 170 of the Atomic Energy Act (Price-Anderson Act), which states that power reactor licensees maintain some level of public liability financial protection.

BACKGROUND

On January 27, 1993, PGE notified the NRC of the Trojan Nuclear Plant co-owners' decision to permanently cease power operations. At that time, PGE maintained financial protection as required by 10 CFR 140.11(a)(4), consisting of primary coverage in the amount of \$200 million

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<sup>1</sup> As detailed later herein, the requirements of 10 CFR 140.11(a)(4) are currently applied to the Trojan Nuclear Plant via an exemption approved by the NRC on November 2, 1995, that reduced the required primary financial protection from \$200 million to \$100 million and eliminated the requirement for maintaining secondary level financial protection.

<sup>2</sup> The Trojan ISFSI is operated under a specific license issued pursuant to 10 CFR 72 (License No. SNM-2509).

and participation in the industry's secondary financial protection plan. This coverage is required by 10 CFR 140 for operating nuclear power plants to satisfy liability claims resulting from a nuclear incident of the type which potentially could occur at an operating nuclear power plant.

On April 6, 1995, PGE submitted letter VPN-016-95, "Request for Exemption from the Financial Protection Requirements of 10 CFR 140.11(a)(4) and Amendment to Indemnity Agreement No. B-78," to the NRC. The basis for PGE's April 6, 1995, request for exemption was NRC action in 1993<sup>3</sup> regarding liability financial protection which allowed, after a requisite minimum spent fuel decay period had elapsed, reductions in the amount of financial protection required of licensees of permanently shutdown nuclear plants. By letter dated November 2, 1995, the NRC approved PGE's request for exemption from the requirements of 10 CFR 140.11(a)(4) "to the extent that primary financial protection in the amount of \$100 million shall be maintained." Specifically, this exemption allowed PGE to (1) reduce the Trojan Nuclear Plant primary financial protection required by 10 CFR 140.11(a)(4) from \$200 million to \$100 million; and (2) no longer participate in the industry retrospective rating plan (secondary level financial protection) for the Trojan Nuclear Plant. Consistent with this exemption, the NRC issued Amendment 7 to Indemnity Agreement No. B-78 for the Trojan Nuclear Plant (TAC No. M92328) on January 3, 1996.

Currently, PGE continues to carry \$100 million in financial protection as required by the November 2, 1995, exemption to 10 CFR 140.11(a)(4), and Indemnity Agreement No. B-78, Amendment 7. Meanwhile, decommissioning of the Trojan Nuclear Plant has progressed to the extent that, with the exception of the spent nuclear fuel in the Spent Fuel Pool, over 99 percent of the residual radioactivity resulting from plant operation has been removed from the site. The spent nuclear fuel is in the process of being transferred from the Trojan Nuclear Plant Spent Fuel Pool to the Trojan ISFSI that is operated under a specific license issued by the NRC pursuant to 10 CFR 72 (Trojan ISFSI License No. SNM-2509).

The completion of the transfer of spent nuclear fuel to the Trojan ISFSI (currently scheduled for October 31, 2003) will eliminate the available radiological source term remaining on the Trojan Nuclear Plant site for reasonably conceivable radiological accident scenarios that could have significant offsite consequences. Specifically, the Trojan Nuclear Plant site inventory of radioactive material will be below the quantities specified in 10 CFR 30.72 "Schedule C - Quantities of Radioactive Materials Requiring Consideration of the Need for an Emergency Plan for Responding to a Release." By letters dated April 25, 2000, and May 10, 2000, the NRC Staff concurred with this conclusion in granting PGE an exemption from the radiological emergency planning requirements of 10 CFR 50, and in issuing to PGE an associated Trojan Nuclear Plant License No. NPF-1, Amendment No. 202, to reflect the April 25, 2000, exemption. This

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<sup>3</sup> SECY-93-127, "Financial Protection Required of Licensees of Large Nuclear Power Plants During Decommissioning," May 10, 1993; and Staff Requirements Memorandum dated July 13, 1993, in response to SECY-93-127.

NRC-approved exemption and license amendment will be made effective following the completion of spent nuclear fuel transfer from the Spent Fuel Pool to the Trojan ISFSI.

### BASIS FOR EXEMPTION REQUEST

The provisions of 10 CFR 140.8 allow specific exemptions from the requirements of 10 CFR 140 provided the exemptions are authorized by law and are otherwise in the public interest. As described below, the exemption requested herein from the requirements of 10 CFR 140.11(a)(4) as currently applied to the Trojan Nuclear Plant is authorized by law and is otherwise in the public interest, and is provided for by existing NRC policy.

#### Specific Exemption is Authorized by Law

The exemption to 10 CFR 140.11 requirements that the NRC issued to PGE for the Trojan Nuclear Plant on November 2, 1995, was based on NRC action regarding liability financial protection that provided assurance that specific exemptions to 10 CFR 140.11 are authorized by law. Specifically, the NRC Staff independently evaluated the legal, technical, and policy issues regarding the financial protection requirements under the Price-Anderson Act for large nuclear power plants that have been permanently shut down. The results of these evaluations were summarized in SECY-93-127 dated May 10, 1993, as embodied in the associated SRM dated July 13, 1993. These Commission documents established the basis for the NRC exercising its discretionary authority to establish a level of offsite financial protection appropriate to the presence or absence of potential risks at a permanently shutdown nuclear power plant.

NRC activity regarding liability financial protection since the issuance of SECY-93-127 and associated SRM dated July 13, 1993, provides additional assurance that the proposed exemption as requested herein is authorized by law. Specifically, the NRC Staff has conducted further evaluation of the legal, technical, and policy issues regarding the financial protection requirements under the Price-Anderson Act for large nuclear power plants that have been permanently shut down. These evaluations are documented in SECY-97-186, "Changes to the Financial Protection Requirements for Permanently Shutdown Nuclear Power Reactors, 10 CFR 50.54(w) and 10 CFR 140.11," and were the basis for a proposed decommissioning insurance rule issued by the NRC on October 30, 1997. This proposed rulemaking established several different configurations for permanently shutdown reactors that encompassed anticipated spent fuel characteristics and storage modes during the period between permanent shutdown and termination of the license. The rulemaking proposed financial protection requirements for each of the specified plant configurations, which included the configuration in which the plant is permanently shutdown and the spent nuclear fuel has been transferred from the Spent Fuel Pool to an ISFSI.

Prior to the issuance of final rulemaking, however, the NRC Staff halted rulemaking efforts when it was realized that no Staff-approved technical basis existed for generic decay times after which



a zirconium fire concern could be eliminated. The proposed changes to insurance requirements were subsequently included in the risk-informed, integrated rulemaking for decommissioning nuclear power plants. This rulemaking initiative, documented in SECY-00-145, "Integrated Rulemaking Plan for Nuclear Power Plant Decommissioning," dated June 28, 2000,<sup>4</sup> included offsite financial protection requirements based on the aforementioned proposed decommissioning insurance rule issued on October 30, 1997, modified as appropriate to address the public comments received in response to that proposal. The modified rulemaking as incorporated into SECY-00-145 would allow the minimum offsite financial protection requirement to be reduced to \$25 million once the spent nuclear fuel has been transferred from the Spent Fuel Pool to an ISFSI, provided that the remaining radioactive materials stored onsite satisfied specific criteria. The radioactive materials criteria were stated as follows:

*...offsite doses in the event of a reasonably conceivable radiological accident would not exceed a TEDE of 1 rem or a CDE to the thyroid of 5 rems; or the site inventory of radioactive material is below the quantities specified in 10 CFR 30.72 "Schedule C – Quantities of Radioactive Materials Requiring Consideration of the Need for an Emergency Plan for Response to a Release...."*

These criteria reflect the original legal and technical basis in SECY-93-127 that the NRC has used to exercise its discretionary authority to establish a level of offsite financial protection appropriate to the presence or absence of potential risks at permanently shutdown nuclear power plants. As the NRC Staff stated in SECY-00-145 for licensees meeting these criteria:

*"This amount [\$25 million] should account for the continuing potential for claims based on asserted offsite consequences. It is the staff's judgment that \$25 million in coverage would minimize the possibility that Federal Government indemnification would be required and would be consistent with the requirements of Section 170 of the Atomic Energy Act which states that power reactor licensees maintain some level of public liability financial protection."*

Following the completion of the transfer of spent nuclear fuel from the Trojan Nuclear Plant Spent Fuel Pool to the Trojan ISFSI, the Trojan Nuclear Plant site will satisfy the criteria cited in SECY-00-145 to allow a reduction in offsite financial protection to \$25 million. Specifically, there will be no spent fuel stored on the Trojan Nuclear Plant site licensed under 10 CFR 50, and the Trojan Nuclear Plant site inventory of radioactive material will be well below the quantities specified in 10 CFR 30.72, "Schedule C – Quantities of Radioactive Materials Requiring Consideration of the Need for an Emergency Plan for Responding to a Release." This conclusion regarding inventory of radioactive material has received prior NRC concurrence, as stated in Section 4.4 of the NRC Staff's May 10, 2000, safety evaluation supporting their approval of a

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<sup>4</sup> As documented in a Commission SRM dated September 27, 2000, regarding the integrated rulemaking initiative for decommissioning nuclear power plants presented in SECY-00-145, rulemaking progress is awaiting further developments by the Staff.

Trojan Nuclear Plant license amendment that eliminates emergency planning requirements after completion of spent nuclear fuel transfer to the Trojan ISFSI:

*In addition, the movement of the spent nuclear fuel from the Trojan Plant to the ISFSI and removal of the reactor vessel and internals from the 10 CFR Part 50 licensed area of the site<sup>5</sup> will remove the available radiological source terms for credible accident scenarios. The quantities of radioactive material remaining on site are less than the quantities specified in 10 CFR 30.72, "Schedule C – Quantities of Radioactive Materials Requiring Consideration of the Need for an Emergency Plan for Responding to a Release."*

With consideration for the elimination of risk from the Trojan Nuclear Plant site that would have any significant offsite radiological consequences, NRC policy supports the reflection of this reduction in risk in the indemnification requirements to which the Trojan Nuclear Plant co-owners are subject. Following the completion of the spent nuclear fuel transfer from the Spent Fuel Pool to the Trojan ISFSI, a reduction in offsite financial protection from \$100 million to \$25 million would represent a conservative level of financial protection commensurate with the absence of significant offsite radiological risk remaining at the Trojan Nuclear Plant site. Consistent with the NRC's conclusions documented in SECY-00-145, this reduced amount would continue to conservatively account for the continuing potential for claims based on asserted offsite consequences by members of the public, while minimizing the likelihood that Federal Government indemnity would be exercised for satisfaction of claims for damages. This amount also is consistent with the requirements of the Price-Anderson Act, which states that power reactor licensees maintain some level of public liability financial protection. Therefore, the exemption to 10 CFR 140.11(a)(4) requested herein for the Trojan Nuclear Plant following the completion of the transfer of spent nuclear fuel from the Spent Fuel Pool to the Trojan ISFSI is authorized by law and provided for by existing NRC policy.

#### Specific Exemption is Otherwise In The Public Interest

Implementing the further reduction in primary financial protection as proposed in this exemption request is otherwise in the public interest. Continued compliance with 10 CFR 140.11(a)(4) as previously exempted for the Trojan Nuclear Plant would result in the continuing potential for unnecessary and unwarranted financial burden to PGE ratepayers. This burden results from the payment of insurance premiums for coverage no longer commensurate with the condition wherein no spent nuclear fuel remains on the Trojan Nuclear Plant site and insufficient radioactive source term remains to represent a potential offsite radiological hazard. A reduction in offsite financial protection from \$100 million to \$25 million would represent a conservative level of financial protection commensurate with the absence of significant offsite radiological risk remaining at the Trojan Nuclear Plant site and would eliminate any unnecessary and unwarranted financial burden to PGE ratepayers. Thus, the exemption requested herein from the

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<sup>5</sup> The reactor vessel with internals intact was transported for offsite disposal in 1999.

requirements of 10 CFR 140.11(a)(4) as currently applied to the Trojan Nuclear Plant is otherwise in the public interest.

#### POTENTIAL ENVIRONMENTAL IMPACT

The proposed action does not involve significant environmental impacts. Although PGE recognizes that this exemption request does not constitute a license amendment, the proposed exemption is in an area – changes in surety, insurance and/or indemnity requirements – for which the NRC in 10 CFR 51.22(b) and 10 CFR 51.22(c)(10) has determined that a license amendment would meet the criteria for categorical exclusion from the need for either an environmental assessment or an environmental impact statement.

Notwithstanding the above, because the exemption to 10 CFR 140.11(a)(4) requested herein does not involve a change in facility operation or configuration, this exemption: (1) would not increase the probability or the consequences of an accident or reduce a margin of safety; (2) would not change the types or quantities of effluents that may be released offsite; and (3) would not significantly increase the allowable individual or cumulative radiation exposure. Thus, the proposed exemption would result in no significant radiological environmental impact. With regard to potential nonradiological impacts, the exemption to 10 CFR 140.11(a)(4) requested herein does not affect nonradiological plant effluents and has no other environmental impact. Therefore, there are no significant nonradiological impacts associated with the proposed exemption.

<b>STANDARD &amp; POOR'S</b>	<b>RATINGS DIRECT</b>	Page <u>1</u> of <u>2</u>
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## Research:

Return to Regular Format

### Summary: Portland General Electric Co.

**Publication date:** 07-Jul-2004

**Credit Analyst:** Swami Venkataraman, CFA, San Francisco (1) 415-371-5071

**Credit Rating:** BBB+/Watch Neg/A-2

#### ■ Rationale

Portland General Electric Co.'s (PGE) 'BBB+' corporate credit rating and all issue ratings have been on CreditWatch with negative implications since Oregon Electric Utility Co. (Oregon Electric) LLC's filing with the Oregon Public Utility Commission (OPUC) on March 8, 2004, to purchase 100% of PGE from Enron Corp. (D/--/-) for about \$2.35 billion, including the assumption of about \$1.1 billion in debt and preferred stock. The final offer may be adjusted to reflect PGE's financial performance between Jan. 1, 2003 and the date of the sale's closing, which is expected during the second half of 2004. Based on filings with OPUC, Oregon Electric will need approximately \$1.471 billion to complete the transaction, which is expected to be funded through a combination of \$525 million of equity, \$707 million of debt, and a \$240 million dividend from PGE at the time of closing.

The acquisition will result in a heavily leveraged consolidated balance sheet of PGE and Oregon Electric. Accordingly, Standard & Poor's Ratings Services expects that PGE's ratings will be lowered. However, based upon the overall financing plan, Standard & Poor's expects that following the acquisition, PGE will be able to maintain investment grade ratings. Key to this is Standard & Poor's expectation, and Oregon Electric's commitment, that all dividends from PGE will be used to service and pay down Oregon Electric's debt. Standard & Poor's does not expect Texas Pacific Group (TPG) to have any current income needs from the investment. This should result in more than \$250 million of debt reduction on a consolidated basis in the first five years following the transaction closing. Also important is the continued supportive regulatory regime in Oregon and the 48% equity layer requirement at PGE.

The Enron Bankruptcy Court approved the sale on Feb. 5, 2004, following the completion of an "overbid" process in which other potential buyers had the opportunity to submit superior bids; however, no other bids were made. The transaction will require approval of the OPUC, the Federal Energy Regulatory Commission, the Nuclear Regulatory Commission, and other regulatory agencies prior to closing.

Oregon Electric is an Oregon limited liability company backed by investment funds managed by TPG, a private equity investment firm with about \$13 billion under management. The proposed transaction will be structured so as to avoid Oregon Electric from becoming subject to the Public Utility Holding Company Act (PUHCA). Accordingly, Oregon Electric will be composed of three groups: (1) a managing members LLC, consisting of two individuals, a prominent local businessman, and a civic leader, who will own a 0.4% economic interest in Oregon Electric and 95% of the voting control; (2) class A investors, comprised of two investment funds managed by TPG, who will own a 79.9% economic interest in Oregon Electric and 5% of the voting control; and (3) class B investors, comprised of two parties, the Bill & Melinda Gates Foundation and OCM Opportunities Fund III LP, who will own a 19.7% economic interest in Oregon Electric but have no voting control. The managing members, who will collectively invest about \$2.5 million, will serve a critical role on PGE's board of directors.

PGE's corporate credit rating reflects the supportive regulatory environment in Oregon, low-cost generation, and a strong financial profile. The resource valuation mechanism (RVM) approved by OPUC allows for the annual reset of rates at the beginning of each year based on the company's forecast of net variable power costs for that year. PGE has 1,945 MW of efficient low-cost generation resources, comprised of a mix of hydro, coal, and gas-fired generation. PGE also benefits from cheap hydropower purchases from the Columbia River power system and Bonneville Power Administration.

However, PGE must purchase a large amount, 35%, of its energy requirements from the wholesale market, which constitutes the utility's principal business risk. This risk is compounded by the predominance of hydroelectric power in its supply portfolio. PGE has filed an integrated resource plan (IRP) with OPUC, which details a plan to acquire long-term resources to cover the existing short position and includes a 300 MW gas-fired combined cycle power plant at Port Westward, Oregon.

PGE's financial performance has been sound, with unadjusted funds from operations coverage of interest at 5.0x for the 12-months ended March 31, 2004 and unadjusted total debt-to-capitalization at a comfortable 44.6%. As part of the IRP, PGE is expected to sign a number of long-term power purchase agreements (PPAs) to satisfy its short position. Standard & Poor's will make adjustments to PGE's financial profile by adding off-balance sheet debt obligations to reflect the fixed obligations incurred through the PPAs. The adjusted consolidated financial profile, which will reflect the impact of the PPAs and the debt issued by Oregon Electric to finance the purchase of PGE, will be a principal driver of the ratings on Oregon Electric and PGE. However, PGE's rating will benefit from the 48% minimum equity layer mandated by the OPUC and the strong, proactive regulatory history in Oregon.

The contract for the sale of PGE to Oregon Electric indemnifies Oregon Electric from any liabilities arising from the Enron bankruptcy to the extent of the purchase price (\$1.25 billion). This includes matters such as income taxes, retiree health benefits and Enron pension plans. Oregon Electric is also indemnified with respect to FERC- and California-related legal claims for up to \$125 million.

#### **Short-term credit factors.**

The rating on PGE's short-term debt is 'A-2', incorporating adequate liquidity, the ability to internally fund capital expenditure requirements, and the expectation for the utility to continue to generate stable cash flow.

PGE has maintained access to the capital markets through the Enron bankruptcy. PGE has \$150 million in unsecured, revolving bank lines of credit—a \$50 million, 364-day line and another \$100 million, three-year line, maturing in May 2005 and May 2007, respectively. PGE previously had one 364-day line secured by first mortgage bonds. The new lines reflect increased market confidence that PGE is now isolated from the risks surrounding the Enron bankruptcy, particularly after the sale to Oregon Electric through the auction process. PGE has borrowed \$3 million in the form of LOCs as of March 31, 2004. Cash on hand totaled \$171 million on the same date.

Through the Enron bankruptcy, PGE has been required to maintain cash balances that are higher than historical levels. This is expected to come down once the transaction closes, given that the Enron risk premium will no longer exist and also since PGE will dividend about \$240 million to Oregon Electric, who will pay Enron. However, Standard & Poor's expects that PGE would maintain sufficient cash balances that, along with the bank line of credit, would provide sufficient liquidity for PGE's operations.

Debt maturities are small and easily manageable, at \$56 million in 2004 and \$30 million in 2005. Cash from operations is sufficient to meet all capital expenditures, with the exception of the construction of the Port Westward combined cycle gas-fired project planned under PGE's IRP.

The RVM in Oregon allows for the annual reset of rates based on PGE's forecast of net variable power costs for that year. By November, when the RVM is set, 90%-95% of PGE's open position is filled for the next year, under an average water assumption. Thus, the main liquidity risk from power supply costs arises from hydro variation not forecast by November. PGE does not currently have a PCA or a hydro cost deferral mechanism to pass this risk on to customers.

July 12, 2004

TO: J. Laurence Cable  
EWEB  
Cable Huston Benedict Haagensen & Lloyd

FROM: Patrick Hager  
Manager, Regulatory Affairs

**PORTLAND GENERAL ELECTRIC  
UM-1121  
PGE Response to EWEB Data Request 24  
Dated June 25, 2004  
Question 024**

**Request:**

**Please provide a description of PGE's credit ratings, from Standard & Poor's, Moody's Investors Services or both if applicable, for the period 1990 until the present. Please provide a summary explanation of the event or events that gave rise to any significant rating change. For purposes of this request, "significant means a change in rating of more than two degrees (e.g. for Standards & Poor's a change from A± to A- or from A- to BBB~ for Moody's from A1 to A3 or A3 to Baa2).**

**Response:**

PGE objects to this request on the basis that it is unduly burdensome. Without waiving this objection, PGE responds as follows:

Attachments 024-A and 024-B provide the requested description and summary of significant rating changes.

Submitted and Prepared  
By: Patrick Hager  
Bates No. Range: 204662 – 204663  
Attachment 024-A Bates Range Nos.: 204664 –204667  
Attachment 024-B Bates Range Nos.: 204668 - 204672

**Attachment 024-A**

**Description of PGE's Credit Ratings**

**Bates Range No. 204664 – 204667**

# Bond Ratings: Why Important?

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- Access and pricing on short-term credit
  - Commercial Paper
  - Bank Revolvers
- Access and pricing on long-term capital
- Factor in collateral requirements for wholesale power procurement
- Factor in vendor relationships and terms
- Factor in cost for procuring/selling other services
  - Insurance
  - New product lines



# Criteria For Bond Ratings

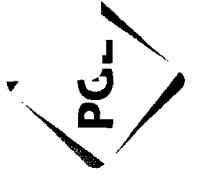
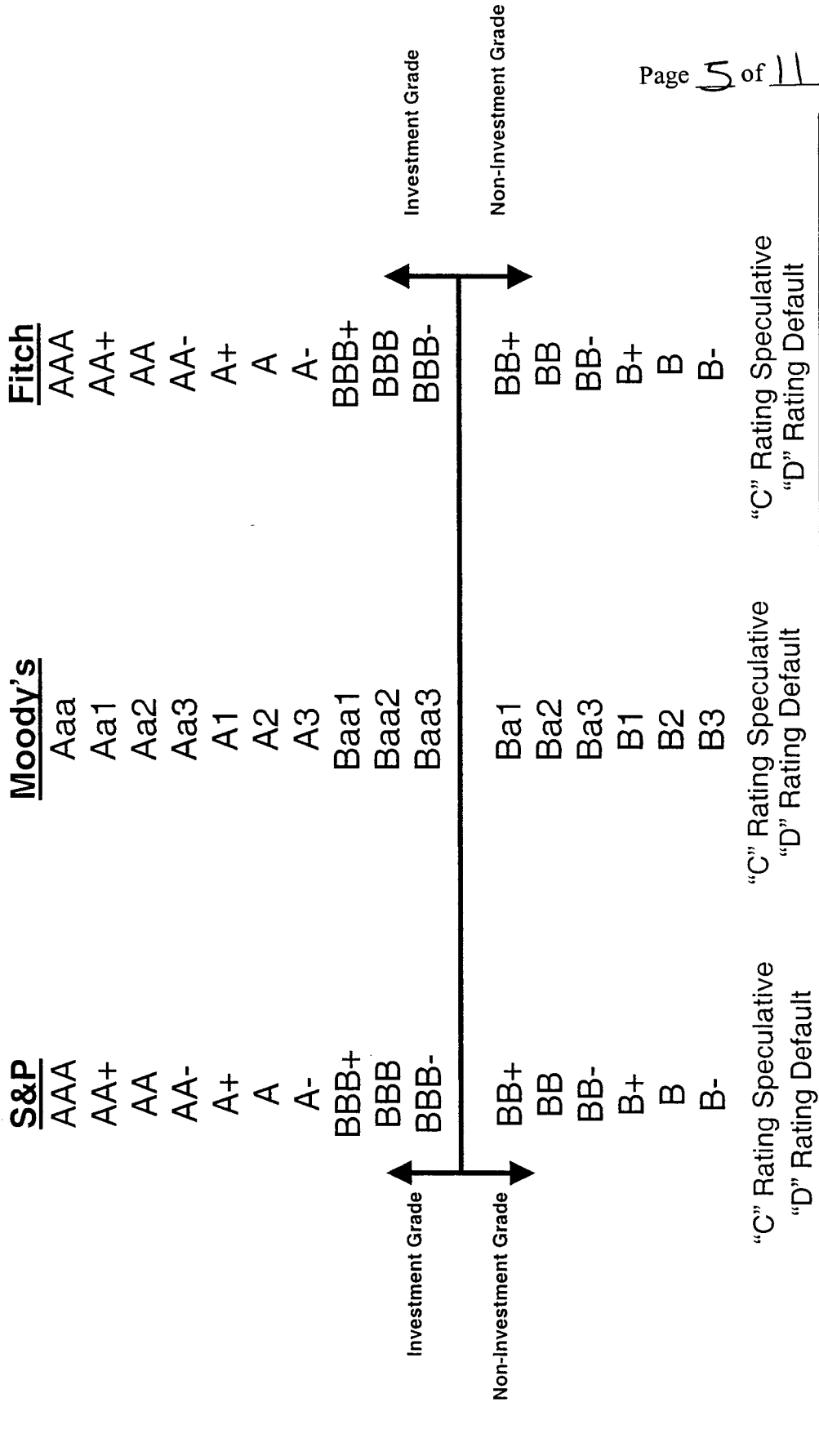
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- Financial Performance (Historical & Projected)
  - **KEY RATIOS**
    - Pre-Tax Interest Coverage
    - Total Debt To Total Capital
    - Funds From Operations Interest Coverage
    - Funds From Operations To Average Total Debt

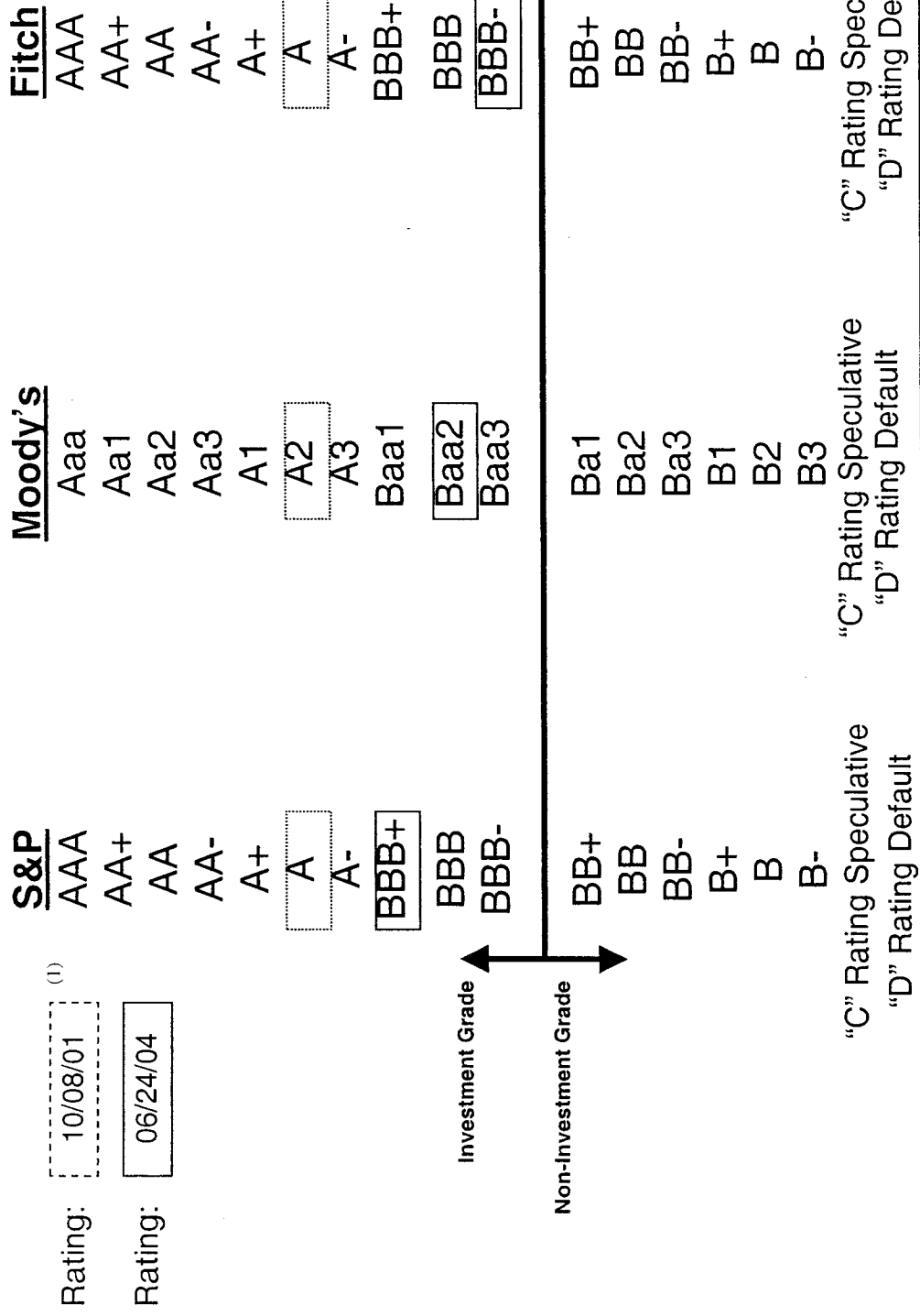
- Customer Market And Service Area Economy
- Regulation
- Competitive Position
- Fuel and Power Supply
- Operations
- Management



# Bond Rating Range



# PGE: Senior Secured Bond Rating



(1) Prior to Enron Corp's Bankruptcy Filing



**Attachment 024-B**

**Summary of Significant Rating Changes**

**Bates Range No. 204669 – 204672**

# Rating Changes: 1999 through June 2004

## Senior Secured Bond Ratings

<u>DATES</u>	<u>RATING</u>
11/1/99-12/6/01	A
12/7/01-Current	BBB+

<u>DATES</u>	<u>RATING</u>
1/1/99-11/27/01	A2
11/28/01-5/21/01	A3
5/22/02-Current	Baa2

<u>DATES</u>	<u>RATING</u>
1/1/99-10/7/01	AA-
10/8/01-11/12/01	A
11/13/01-5/21/02	BBB+
5/22/02-07/31/02	BBB
8/1/02-06/3/03	BB+
06/04/03-Current	BBB-



# Reasons Behind Rating Changes: Senior Secured Bonds 1999 through June 2004

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<u>Rating Agency</u>	<u>Date</u>	<u>Rating Change</u>	<u>Reason for Rating Change</u>
<b>Standards &amp; Poor's</b>	<b>12/7/01</b>	<b>A to BBB+<sup>(1)</sup></b>	Bankruptcy accelerates Enron's need for cash and intensifies the need to sell PGE to NW Natural. PGE's rating under NW Natural ownership will be in the BBB range.
<b>Moody's</b>	<b>11/28/01</b>	<b>A2 to A3</b>	Expected downgrade of PGE to A3 upon completion of the acquisition by NW Natural. Downgrade initiated now reflects concerns on PGE's ability to remain fully insulated from Enron.
	<b>5/22/02</b>	<b>A3 to Baa2</b>	Downgrade in response to termination of the PGE sale to NW Natural. Rating level takes into account the critical fact that new Enron management has made firm representations that PGE in no way will be involved in becoming part of Enron's bankruptcy proceedings.




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(1) PGE's rating by S&P did not experience further downgrade due to the completion of a package of enhancements which insulated PGE from Enron. This included regulatory ring-fencing, negative incentive for Enron to file PGE into bankruptcy, strong non-consolidation opinion and the issuance of a "Golden Share."

PGE 204670

# Reasons Behind Rating Changes: Senior Secured Bonds 1999 through June 2004

Rating Agency	Date	Rating Change	Reason for Rating Change
Fitch	10/08/01	AA- to A	Rating action follows announcement that PGE would be acquired by NW Natural.
	11/13/01	A to BBB+	Rating reflects substantial ongoing uncertainty of Enron and badly eroded investor confidence in Enron.
	5/22/02	BBB+ to BBB	Rating reflects termination of the agreed acquisition of PGE by NW Natural. Rating also reflects the continuing uncertainty about the future impact on PGE of the Enron bankruptcy and the continued FERC investigations affecting western power market participants.
	8/1/02	BBB to BB+	Rating downgrade reflects reduced financial flexibility resulting from the status of PGE being a subsidiary of Enron. The rating reflects a difficult capital market environment and concern that PGE will not be able to issue new debt.
	6/4/03	BB+ to BBB-	Rating upgrade reflects the closing of a \$150MM revolver, \$50MM bond issuance and \$142MM pollution control bond remarketing. Rating also reflects improved visibility with regard to PGE's potential contingent liability exposure to Enron.

PGE 204671



PGE Credit Ratings  
First Mortgage Bonds

Year	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995
Moody's	Baa2	Baa2	Baa2	A3	A2	A2	A2	A2	A2	A3
S&P	BBB+	BBB+	BBB+	BBB+	A	A	A	A	A	A
Fitch	BBB-	BBB-	BB+	BBB+	AA-	AA-	N/A	N/A	N/A	N/A

Year	1994	1993	1992	1991	1990
Moody's	Baa1	Baa1	Baa1	A3	A3
S&P	A	A	A	A-	A
Fitch	N/A	N/A	N/A	N/A	N/A

PGE 204672



**REQUEST EWEB/OEUC 4:**

Are the providers of the Credit Revolvers entitled to declare a default, terminate or otherwise restrict their obligation to provide funds and, if so, under what conditions?

**APPLICANTS' RESPONSE TO REQUEST EWEB/OEUC 4:**

To the extent that this question requests information regarding PGE's existing credit revolver, please direct the request to PGE.

Although final documentation has not been drafted, it is expected that under each credit revolver, the providers of the credit revolvers would be entitled to declare a default upon the occurrence of the following:

- nonpayment of principal, interest, fees or other amounts;
- inaccuracy of representations and warranties;
- violation of covenants;
- cross default;
- bankruptcy events;
- certain ERISA events;
- judgment defaults; and
- invalidity of any guarantee.

For a description of the general terms of the credit revolvers planned for Oregon Electric and PGE, please see Exhibits A and B to the Highly Confident Letter (Exhibit 19 to the Application). Please also see Applicants' Response to Request CUB/OEUC 23(e) (attached as Exhibit B to Applicants' Response to Request EWEB/OEUC 2). Please note that the final terms of the credit revolvers will not be determined until the financing is put in place prior to the closing of the Proposed Transaction.

### **Asset Retirement Obligations**

SFAS No. 143 requires the recognition of Asset Retirement Obligations (AROs), measured at estimated fair value, for legal obligations related to dismantlement and restoration costs associated with the retirement of tangible long-lived assets in the period in which the liability is incurred. Upon initial recognition of AROs that are measurable, the probability weighted future cash flows for the associated retirement costs, discounted using a credit-adjusted risk-free rate, are recognized as both a liability and as an increase in the capitalized carrying amount of the related long-lived assets. Due to the long lead time involved, a market-risk premium cannot be determined for inclusion in future cash flows. Capitalized asset retirement costs are depreciated over the life of the related asset, with accretion of the ARO liability classified as an operating expense on the Statement of Income. On the Statement of Income, AROs related to Utility plant are included in Depreciation and Amortization expense, with those related to Other property included in Other Income (Deductions). In accordance with requirements of SFAS No. 143, accumulated asset retirement removal costs that do not qualify as AROs have been reclassified from Accumulated depreciation to Regulatory liabilities on the Balance Sheet.

### **Trojan Decommissioning**

In early 1993, PGE ceased commercial operation of Trojan and began the decommissioning process. The original Trojan decommissioning cost estimate was prepared by an engineering firm with subsequent updates by PGE, due primarily to the effects of inflation and the timing of certain activities. The net estimated liability for Trojan decommissioning costs as of December 31, 2003 was \$104 million, measured at estimated fair value. PGE collects \$14 million annually from customers through 2011, which amount is based on the decommissioning cost estimate. Amounts collected from customers are deposited in an external trust fund, which reimburses PGE for costs expended under the decommissioning plan. The decommissioning estimate includes amounts for equipment removal, embedded pipe remediation, surface decontamination, non-radiological decontamination, and on-site spent nuclear fuel storage (until permanent storage is provided by the USDOE). Estimating the cost of decommissioning activities over a period extending to 2019 is inherently subjective and complex. Such estimates may vary because of changes in regulatory requirements, technology, labor and material costs, and waste burial. In addition, timing of actual activities may differ from that established in the decommissioning plan, which may also cause actual costs to vary from those estimated.

Management does not expect actual future decommissioning costs to change significantly from the current estimate. However, if actual costs significantly exceed the previously estimated amount, funds collected through rates may not be adequate to cover actual decommissioning costs and may require that PGE utilize available cash and a credit facility to advance funds to the trust to cover any near term shortfall. Recovery of any such shortfall from customers would require OPUC approval.

### **Loss Contingency Reserves**

Contingencies are evaluated based on SFAS No. 5, Accounting for Contingencies, using the best information available. A material loss contingency is accrued and disclosed when it is probable that an asset has been impaired or a liability incurred and the amount of the loss can be reasonably estimated. If a range of possible loss is established, the minimum amount in the range is accrued, unless some other amount within the range appears to be a better estimate. If the probable loss cannot be reasonably estimated, no accrual is recorded, but the loss contingency is disclosed to the effect that it cannot be reasonably estimated. Material loss contingencies are disclosed when it is reasonably possible that an asset has been impaired or a liability incurred. Reserves established reflect management's assessment of inherent risks, credit worthiness, and complexities involved in the collection process.