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Oregon Public Utility Commission
550 Capitol Street NE
Salem, OR 97301-2551

## RE: UE 88/DR 10/ UM 989

Attention Filing Center:
Enclosed for filing on behalf of Portland General Electric Company in the captioned dockets are original and five copies of:

## Portland General Electric Company's Motion for Leave to File Supplemental Testimony;

## Portland General Electric Company Testimony and Exhibits of:

- Pamela G. Lesh - PGE/7200 (Policy);
- Patrick G. Hager- PGE/7300 (Cost of Capital); and
- Jay Tinker, Stephen Schue and Patrick G. Hager - PGE/7400-09 (Quantative Analysis).

Also, enclosed are three copies of:

## Workpapers (PGE/7400).

These documents are being filed electronically. Hard Copies will be sent via US Mail.
An extra copy of this letter is enclosed. Please date stamp the extra copy and return to me in the envelope provided.


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## Policy

## Table of Contents

I. Introduction. ..... 1
II. PGE's Approach and Building Blocks ..... 7
III. PGE's Position ..... 10
IV. Testimony Introduction ..... 22

## I. Introduction

Q. What is your name and position with Portland General Electric?
A. My name is Pamela G. Lesh. I am PGE's Vice President of Regulatory Affairs and Strategic Planning. My qualifications appear in Section V of PGE Exhibit 6000.

## Q. What is the purpose of this stage of the proceeding?

A. The purpose of this stage of the proceeding is to complete the record, begun in Phase I, for matters pertaining to: (1) the Oregon Supreme Court's decision in Dreyer; and (2) Phase II, in which the Commission planned to address the amount, timing and mechanics of making any rate adjustments to UE 88 or UM 989. In these Phases, the Commission will determine whether PGE rates approved in UE 88 were improperly calculated and unlawfully collected; fashion any required revision; and provide current and former PGE customers with complete and full relief for any injury. To accomplish this result, the Commission should identify any difference between the PGE rates that it set between 1995 and 2000 and the rates it would have set had it known that it could not set rates on any basis that included a return on the undepreciated Trojan balance after PGE retired the plant to achieve a least cost resource portfolio for customers.

The Oregon Supreme Court's decision in Dreyer clarifies that the Commission has primary jurisdiction to address these matters. The Commission must apply its specialized expertise and identify those fair and reasonable rates that, under the new interpretation of Oregon law, would have satisfied all statutory and constitutional standards.

## Q. What is the purpose of your testimony?

A. The purpose of my testimony is to present PGE's position on the remaining questions this remand proceeding requires the Commission to answer.
Q. Does this testimony build on the Phase I stage of this proceeding?
A. Yes. PGE Exhibits 6000 and 6800 explained what PGE would have urged the Commission to do in dockets UE 88 and UM 989, given the many choices available to it. We identified factual and policy choices that:

- promoted analysis and action by utilities to achieve the least cost for customers;
- allocated utility costs to customers fairly over time; and
- maintained a utility's ability to access capital so that utility service remained safe and adequate.

Based on two, internally consistent, sets of factual and policy choices, we concluded that:

- In 1995, the Commission would have found fair and reasonable rates at least as high as, if not higher than, the rates approved in Docket UE 88, Order No. 95-322; and
- In 2000, the Commission would have approved the stipulations presented to it and the proposed $\$ 10$ million rate reduction as fair and reasonable. Because amounts owed PGE at that time would have exceeded the customer credits used as an offset, such approval would have been a proper exercise of the Commission's discretion. Approval of the stipulations would have provided economic as well as other benefits to customers from the resolution of the issues.


## Q. What does this testimony add?

A. This testimony supplements PGE's position to address the questions the Commission must answer in the combined Phases I and II, in consideration of the legal guidance provided by, and range of scenarios suggested in, Dreyer. PGE's supplemented position rests on a new UM 989-based scenario that does not change historical UE 88 rate levels, but instead applies any illegal "return on" the Trojan investment included in rates between April 1995 and September 2000 to retire the outstanding Trojan balance. We rely on two additional scenarios to demonstrate the reasonableness of PGE's position.

- Staff's alternative scenario from Phase I; and
- A new scenario, using most of Staff's assumptions, based on a five year amortization of the Trojan investment;

Based on these scenarios, PGE's position is that:

- For the rate period April 1995 through September 2000, the Commission could have ordered fair and reasonable rates at the same levels as the rates actually in place during that period. Instead of customers' rates supporting a "return on" Trojan, customers' rates between 1995 and 2000 would have caused more rapid reduction of the outstanding Trojan balance. Accordingly, customers during this period suffered no harm because the rates determined in this proceeding do not differ from those that were in effect.
- In 2000, the Commission could have evaluated the net benefit of the settlement using this lower Trojan balance as well as other ratemaking adjustments PGE proposed in Phase I. The Commission could have approved the UM 989 stipulations as in the public interest based on the net benefit test and the
qualitative analysis it performed in 2000. This analysis indicated a net benefit to customers of between $\$ 16.4$ and $\$ 18.5$ million. Whether PGE would have needed to increase our contribution by adding between $\$ 0$ and $\$ 6$ million to the net benefits previously provided would depend on the Commission's assessment of customers' share of the Nuclear Electric Insurance Limited ("NEIL") refund.
- Both the Staff Alternative and Five-Year Amortization scenarios produce similar results as far as docket UM 989 is concerned. The Commission can rely on these scenarios in determining the reasonableness of the end result. These scenarios, however, produce rates during the period 1995 through September 2000 that are sometimes higher and sometimes lower than the rates that were actually in place. Using them as the basis of determining complete relief to customers presents theoretical and practical difficulties.
- If the Commission finds that PGE should have provided benefits to customers in September 2000 larger than the $\$ 16.4$ to $\$ 18.5$ million included in the settlement, that additional sum represents the injury customers suffered. The Commission should order PGE to identify customers as of September 30, 2000, and refund the additional amount to those customers based on charges during September 2000. PGE proposes cash payments to former customers (subject to some minimum amount) and billing credits for current customers.
Q. If the Commission determines that PGE must increase the benefits it previously contributed to the UM 989 stipulations, should the Commission apply interest to that amount?
A. Yes. Interest should run from the date of the Commission's final order in this proceeding. Interest for any prior period is unwarranted.

Given the complexities of ratemaking, and the myriad factual and policy decisions implicated in these remand proceedings, the exact amount of damages owing customers can not be ascertained until the Commission completes its work. Quantification of any damages requires the specialized expertise of the Commission. Because credits owing customers, if any, cannot be determined until the date of the Commission's final order, any applicable interest should not begin to run until that time.
Q. If the Commission exercises its discretion and determines to provide interest on customer balances, what rate should the Commission use?
A. This case presents unique circumstances. The Commission is reevaluating rates that it approved over 10 years ago. PGE's position is that to the extent the Commission deems it appropriate to apply an interest factor to any customer refund; the maximum rate should be the general statutory rate for pre-judgment interest or $9 \%$ per annum, ORS 82.010. Given the circumstances presented, applying 9\% simple interest to any refund amounts, rather than PGE's cost of capital, would provide customers with an equitable rate sufficient to make them whole.

## Q. How is your testimony organized?

A. My testimony has four sections.

- In Section II, I briefly summarize the approach we presented in Phase I to identify rates the Commission would have found fair and reasonable in UE 88 and UM 989. I review the building blocks of factual and policy choices available to
the Commission for this purpose, including one additional building block based on a policy decision made in UM 989;
- In Section III, I explain PGE’s position, using the methodology and building blocks of Section II; and
- In Section IV, I summarize the other testimony PGE is presenting in this supplemental round.


## II. PGE's Approach and Building Blocks

Q. What approach did you follow in developing PGE's position in this remand proceeding?
A. As explained in PGE Exhibit 6000, we articulated three questions to serve as the criteria by which we could test the regulatory policy strength of our position. Then we identified those factual and policy decisions made in UE 88 that require re-examination in light of the Court of Appeals interpretation of Oregon law. Now we also address the Dreyer decision. Our position is a set of changes that best meets the criteria, consistent with Commission regulatory policy and constitutional and statutory requirements.
Q. What are the three questions you previously used and use again in this testimony?
A. We believe that, had the Commission known in deciding UE 88 and subsequent cases that, if it spread the recovery of Trojan's un-depreciated balance over time, then it could not allow PGE to earn a return on the balance, its factual and policy decisions in UE 88 and ultimately UM 989 would have been guided by the answers to these questions:

1. Does this decision encourage electric utilities to analyze and make resource decisions that will yield "an adequate and reliable supply of energy at the least cost to the utility and its customers consistent with the long-run public interest?"
2. Does this decision equitably allocate the costs and benefits of utility resource decisions to customers over time, such that no one "generation" of customers bears an inequitable burden of the costs or receives an inequitable share of the benefits?
3. Does this decision preserve the utility's financial integrity and ability to attract debt and equity capital so that the adequacy and cost of service to future customers is not compromised? [PGE Exibit 6000, p. 14]
Q. Please summarize the UE 88 factual and policy decisions PGE suggested in PGE Exhibit 6000 that the Commission might have made differently had it known of the Court of Appeals ruling.
A. The factual and policy decisions we suggested the Commission might have made or made differently are the following:

- The period over which it ordered PGE to amortize its un-depreciated Trojan investment;
- The required return on common equity and capital structure;
- The calculation of the net benefits test and application of the resulting net benefit;
- The classification of certain components of Trojan as plant-in-service;
- The amortization period for certain liabilities on PGE's balance sheet owed to customers as of March 1995;
- The recovery in 1995 of all forecasted 1995 net variable power costs; and
- The inclusion in rates of all of PGE's interest payment costs, regardless of whether the underlying debt relates to un-depreciated Trojan investment. [PGE Exhibit 6000, p. 19]
Q. What is the additional building block that you recommend the Commission consider in this Phase II?
A. We recommend that the Commission consider the role of the NEIL refund as it evaluates the UM 989 settlement in these remand dockets. The Commission explained in Order No. 02-227 that the "distribution of payments from NEIL is subject to the Commission's discretion" and that the "record does not reveal exactly how much customers paid in NEIL premiums." Order No. 02-227 at 14-15. Notwithstanding finding that some "allocation of the NEIL distribution is therefore reasonable between PGE shareholders and customers," the net benefits test the Commission applied adopted the perspective most favorable to customers, "assuming that without the Settlement, customers would get $100 \%$ of the NEIL distributions."

As the Commission sets new rates for UE 88, UE 93 and UE 100 and evaluates the UM 989 settlement, the Commission should revisit whether this conservative approach to net benefits remains fair and reasonable.

## III. PGE's Position

## Q. What is the basis of your position?

A. We base PGE's position on a new UM 989-based scenario comprised of building blocks factual and policy decisions - that we could have recommended, and the Commission could have adopted, in UE 88, UE 93, UE 100 and UM 989. This scenario, for convenience called the "Retirement of Trojan Balance" scenario, meets the criteria I described above. We also present two other scenarios by which the Commission can determine the reasonableness of any result using the Retirement of Trojan Balance scenario. These additional scenarios also meet the criteria I described, although not to the same degree or in the same way. For convenience, we label these scenarios as follows:

- Staff Alternative
- Five-year amortization
Q. What are the factual and policy decisions within the "Retirement of Trojan Balance" scenario that PGE might have requested that the Commission find?
A. The "Retirement of Trojan Balance" scenario includes a specific set of UE 88 factual and policy decisions the Commission could have made:
- Revise the UE 88 net benefit test to allow all un-depreciated investment in Trojan, based on the positive net benefit resulting from comparing the cost of closure without a "return on" the Trojan balance to the cost of continued operation;
- Retain $\$ 80$ million of the Trojan assets still in use during this period in the plant-in-service accounts;
- Offset the $\$ 111$ million Boardman gain against the un-depreciated Trojan assets that were not still plant-in-service;
- Recover the AMAX termination payment, pre-UE 88 deferred power costs and SAVE incentive, using a 10-year amortization period; and
- Increase the allowed return on common equity by 50 basis points to $12.1 \%$ rather than the prior stipulated amount of $11.6 \%$. This is discussed further in the supplemental testimony of Patrick Hager. (PGE Exhibit 7300).

With these initial UE 88 decisions, this scenario then leaves unchanged the rates set in UE 88, UE 93 and UE 100 and simply replaces the unlawful "return on" portion of the rates with lawful amortization or retirement of the Trojan net plant balance. This results in an un-depreciated Trojan balance and other regulatory assets owed PGE, as of September 30, 2000, equal to $\$ 155.9$ million or approximately $\$ 6$ million less than the customer credits offset in the UM 989 stipulation. PGE Exhibit 7400 presents the effect of these revised factual and policy decisions on UE 88, UE 93, UE 100, and UM 989.
Q. Based on the "Retirement of Trojan Balance" scenario what should the Commission conclude about the UM 989 settlement?
A. PGE's position using this scenario is that the Commission should restore between $\$ 0$ and \$6 million to PGE's balance sheet as reflecting credits owed customers. With this restoration, the net benefits analyses applied in Order No. 02-277 remain supportive of a finding that the settlement resulted in fair and reasonable rates, particularly in light of the conservative assumption made regarding allocation of the NEIL refund. Returning up to $\$ 6$ million to those who were customers during September 2005 will afford complete and
final relief for the injury suffered by customers. These rates remove any improper "return on" Trojan.
Q. How does the outcome of the Retirement of Trojan Balance scenario comport with the criteria you presented in Section II?
A. With respect to the first criterion of encouraging resource decisions that are consistent with the long-run public interest and least cost to customers, the outcome of this scenario is neutral. The replacement of return on with return of effectively amortizes Trojan faster than 17 years, albeit with no return, but the other factual and policy decisions in the scenario mitigate the effect of this.

With respect to the second criterion of equitably allocating costs across customer generations, this scenario, applied through a restoration of customer credits then returned to September 2000 customers provides reasonable satisfaction.

Regarding the third criterion of preserving PGE's financial integrity and ability to attract debt and equity capital, the scenario is positive for many of the same reasons as discussed regarding the first criterion.
Q. What is the second scenario - Staff Alternative - that PGE might have requested that the Commission find?
A. This begins with Staff's alternative to PGE's first scenario in Phase I described at Staff 100/Busch-Johnson/22. This is a rate decision in UE 88 that meets statutory and constitutional standards and moves through UE 93 and UE 100. It concludes with an evaluation of whether the UM 989 stipulations were in the public interest based on the
results of a net benefits test and other considerations. PGE could have requested, and believes the Commission could reasonably have found, that PGE should:

- Revise the UE 88 net benefit test to recover $\$ 17.6$ million of the disallowed un-depreciated investment in Trojan, based on the positive net benefit resulting from comparing the cost of closure without a "return on" the Trojan balance to the cost of continued operation;
- Retain $\$ 80$ million of the Trojan assets still in use during this period in plant-in-service accounts;
- Apply the $\$ 111$ million Boardman gain as an offset to the un-depreciated Trojan assets that were not still plant-in-service;
- Use a one-year amortization period for recovery of the remaining un-depreciated Trojan balance; and
- Recover the AMAX termination payment, pre-UE 88 deferred power costs and SAVE incentive over a 10-year amortization period.

PGE Exhibit 7400 presents the effect of these revised factual and policy decisions on UE 88, UE 93, UE 100 and UM 989. The result of this scenario, summarized in Table 1 below, shows that rates were significantly too low in the UE 88 and UE 93 rate periods and too high in the UE 100 rate period.

Table 1
(\$000 Over Period When Rates In Effect)

| Rate <br> Period | Approved Revenue <br> Requirement | Re-Calculated <br> Revenue <br> Requirements | Revenue Requirement <br> Difference |
| :---: | :---: | :---: | :---: |
| UE 88 | 621,028 | 696,823 | 75,795 |
| UE 93 | $1,003,794$ | $1,031,281$ | 27,487 |
| UE 100 | $3,674,898$ | $3,588,586$ | $(86,312)$ |

The Commission could and should find it logical to apply the net of the mismatches, using constant dollars, when evaluating whether the UM 989 settlement is in the public interest. This would give PGE credit for the significant undercharges in the UE 88 and UE 93 rate periods. Customers would receive credit for the overpayments in the UE 100 rate period. This approach triggers several concerns, however.

First, if these mismatches are netted, some may argue that this leaves certain customers during the period April 1995 through September 2000 without a remedy for rates that were too high unless a refund occurs. But any remedy for that situation would require redress to PGE for the UE 88 and UE 93 rate periods when rates were markedly too low, triggering a surcharge to customers for this period. Such refunds and surcharges are impractical and imprecise because PGE has no records of customer usage prior to 1998 . While we might be able to reconstruct, to within some degree of error, the names of customers, we would have no way of allocating to them any refunds or surcharges.

A second issue with the Staff Alternative scenario arises from the size of the rate differentials between those that were in place and those the Commission would have set. Bringing these differentials forward to September 2000 in constant and consistent dollars to determine the effect of the stipulations requires a large adjustment in PGE's favor. This is the effect of moving the amounts owed PGE in the UE 88 and UE 93 rate periods forward to September 2000, offset by the effect of moving the amounts owed customers in the UE 100 rate period forward to the same end date. Some might argue that applying interest to any dollars, whether owed to PGE or otherwise, is illegal. Others might argue that applying interest only to dollars owed PGE because of rate differentials is illegal.

These theoretical and practical considerations may mean that the Commission does not apply this scenario to derive a result for Phases I and II. The scenario remains useful, however, to test whether the result of applying the Retirement of Trojan Balance scenario is reasonable.
Q. Based on Staff Alternative, could the Commission conclude that a result based on the Retirement of Trojan Balance scenario is reasonable?
A. Yes. PGE Exhibit 7400 discusses how the Staff Alternative would result in a net Trojan balance owed PGE as of September 30, 2000, equal to $\$ 158.9$ million or approximately \$3 million less than the customer credits used in the UM 989 stipulation. Using this scenario, PGE suggests that the Commission should restore between $\$ 0$ and $\$ 3$ million to PGE's balance sheet reflecting credits owed customers. With this restoration, the net benefits analyses applied in Order No. 02-277 remain supportive of a finding that the stipulations resulted in fair and reasonable rates, particularly in light of the conservative assumption made regarding allocation of the NEIL refund. Returning up to $\$ 3$ million to those who were customers during September 2000 will afford complete and final relief for the injury suffered by customers. This scenario results in rates that remove any improper "return on" Trojan.
Q. How does the outcome of the Staff alternative scenario comport with the criteria you presented in Section II?
A. With respect to the first criterion of encouraging resource decisions that are consistent with the long-run public interest and least cost to customers, the outcome of this scenario is neutral to slightly negative. The use of a one-year amortization would have resulted in an
$\$ 11$ million write-off on PGE's balance sheet in 1995. On the other hand, the approach restores $\$ 17.6$ million of the un-depreciated balance previously disallowed.

With respect to the second criterion of equitably allocating costs across customer generations, this scenario, applied through a restoration of customer credits then returned to September 2000 customers provides reasonable satisfaction.

Regarding the third criterion of preserving PGE's financial integrity and ability to attract debt and equity capital, the scenario is positive for many of the same reasons as discussed regarding the first criterion.
Q. What is the third scenario - Five-Year Amortization - that PGE might have requested that the Commission find?
A. This scenario also begins with the Staff Alternative but uses a longer amortization period for the un-depreciated balance. The elements are:

- Use a five-year amortization period for recovery of the remaining un-depreciated Trojan balance;
- Revise the UE 88 net benefit test to allow all of the un-depreciated investment in Trojan, based on the positive net benefit resulting from comparing the cost of closure without a "return on" the Trojan balance to the cost of continued operation;
- Retain $\$ 80$ million of the Trojan assets still in use during this period in the plant-in-service accounts;
- Apply the $\$ 111$ million Boardman gain as an offset to the un-depreciated Trojan assets that were not still plant-in-service;
- Increase the UE 88, UE 93 and UE 100 authorized return on common equity by 50 basis points as discussed in PGE Exhibit 7300; and
- Recover the AMAX termination payment, pre-UE 88 deferred power costs and SAVE incentive over a 10-year amortization period.

PGE Exhibit 7400 presents the effect of these revised factual and policy decisions on UE 88, UE 93, UE 100 and UM 989. The results of the five-year amortization scenario, summarized in Table 2 below, show that rates were only slightly high in the UE 88 period and too low in the UE 93 and UE 100 rate periods.

Table 2
(\$000 Over Period When Rates In Effect)

| Rate <br> Period | Approved Revenue <br> Requirement | Re-Calculated <br> Revenue <br> Requirements | Revenue Requirement <br> Difference |
| :---: | :---: | :---: | :---: |
| UE 88 | 621,028 | 614,005 | $(7,023)$ |
| UE 93 | $1,003,794$ | $1,016,377$ | 12,583 |
| UE 100 | $3,674,898$ | $3,730,591$ | 55,693 |

The Commission could and should find it logical to apply the net of the mismatches, using constant dollars, when evaluating whether the UM 989 settlement is in the public interest. However, concerns arise that are similar to those presented by the Staff Alternative scenario.

First, others could argue that this leaves certain customers during the period April 1995 through September 2000 without a remedy for rates that were too high unless a refund occurs. A remedy for this, or to PGE for periods in which the rates were too low, suffers the same difficulties as discussed under the Staff Alternative scenario.

The second concern with the Staff Alternative—bringing dollars forward to September 2000 for purposes of applying the UM 989 net benefits test—is somewhat different for this
scenario. These rates would more closely match actual historical rates. Accordingly, the rate differentials produced in this scenario are much smaller than those in the Staff Alternative scenario. Although PGE believes that making the dollars consistent is the best approach, one could calculate the UM 989 net benefits test using the net of the nominal rate differentials owed customers and owed PGE. PGE Exhibit 7400 uses the net of the nominal rate differentials in its Five-Year Amortization calculations.

The practical considerations that we have described may mean that the Commission does not apply this scenario to derive a result for Phases I and II. This scenario, however, remains useful to test whether the result of applying the Retirement of Trojan Balance scenario is reasonable.
Q. Based on this five-year amortization scenario, what should the Commission conclude about the UM 989 settlement?
A. PGE Exhibit 7400 shows that these factual and policy decisions would result in amounts owed PGE as of September 30, 2000, equal to $\$ 155.9$ million or approximately $\$ 6$ million less than the customer credits offset in the UM 989 stipulation. PGE's position using this scenario is that the Commission should restore between $\$ 0$ and $\$ 6$ million to PGE's balance sheet as reflecting credits owed customers. With this restoration, the net benefits analyses applied in Order No. 02-277 remain supportive of a finding that the settlement resulted in fair and reasonable rates, particularly in light of the conservative assumption made regarding allocation of the NEIL refund. Returning up to $\$ 6$ million to those who were customers during September 2000 will afford complete and final relief for the injury to customers. These rates remove any improper "return on" Trojan.
Q. Why do you suggest a five-year amortization?
A. This amortization period results in rates that most closely match those actually set in UE 88 and subsequently in UE 93 and UE 100. Consequently, it minimizes issues around revenue requirement differentials from 1995 through early 2000 in the context of the UM 989 settlement.
Q. How does the outcome of the Five-Year Amortization scenario comport with the criteria you presented in Section II?
A. Its results are similar to those of the Retirement of Trojan Balance scenario. In this context the Five-Year Amortization scenario is reasonable in its own right.
Q. Based on these scenarios what is the amount of injury or damages to customers from the rates set by the Commission in UE 88?
A. Damages, or injury to customers, is the difference between the amount they paid under Order No. 95-322 and the amount they would have paid if the Commission had set lawful rates. All three scenarios discussed above describe lawful rates, well founded in ratemaking policy and the public interest, which the Commission could have set in March 1995, if it had known the later interpretation of ORS 757.355. Rates established in these scenarios would have been approved by the courts, because there is no amount of improper "return on" Trojan included.

The difference between the Order No. 95-322 rates and each scenario, existing in September 2000, the time of the UM 989 settlement is shown below in Table 3.

Table 3
UM 989 Balances (\$Million)

| Scenario | Balance Owed <br> By Customers | Customer Credits | Difference |
| :--- | :---: | :---: | :---: |
| Trojan Balance | 155.9 | 161.9 | $(6.0)$ |
| Staff Alternative | 158.9 | 161.9 | $(3.0)$ |
| Five-Year | 155.9 | 161.9 | $(6.0)$ |

From this, we conclude the injury to customers from the Commission Order No. 95-322 is up to $\$ 6$ million.
Q. Could a re-evaluation of the UM 989 net benefit test result in a different level of injury to customers as a result of Commission Order No. 95-322?
A. Yes. The original UM 989 net benefit test suggested a range of net benefits from $\$ 16.4$ to $\$ 18.5$ million. The calculations in Table 3 are effectively based on UM 989 net benefits of $\$ 18.5$ million. A change in assumed UM 989 net benefits to $\$ 16.4$ million would change the difference figures in Table 3 by approximately $\$ 2$ million, leading to the conclusion that Order No. 95-322 resulted in injury to customers of up to approximately $\$ 8$ million. Section V of PGE Exhibit 7400 discusses the UM 989 net benefit test in detail and PGE Exhibit 7409 provides detailed calculations.
Q. How does PGE propose to provide relief for any injury the Commission may find?
A. We propose a one-time credit to customers. Each customer's credit would be computed based on a pro-rata amount of the total refund.

## Q. How do you propose to distribute any refund?

A. For affected customers who are still receiving service when the refund process is initiated, we can provide a billing credit on their PGE bill. For inactive or former customers that are no longer served by PGE, we can refund the appropriate amount by check. This process is
similar to the method PGE used to implement the Multnomah County Business Income Tax refund completed in 2006. The specific mechanics can be determined after the Commission identifies any injury to customers and specifies the affected customers.

## IV. Other Testimony Introduction

Q. What other testimony is PGE presenting in this supplement for the combined Phases I and II?
A. In PGE Exhibit 7300, Patrick Hager discusses how an increase in PGE's authorized return on equity would be appropriate under either the Retirement of Trojan Balance or Five-Year scenarios. In PGE Exhibit 7400, Jay Tinker, Stephen Schue, and Patrick Hager present quantitative results of the Retirement of Trojan Balance, Five-Year, and Staff Alternative scenarios.
Q. Does this complete your testimony?
A. Yes.

## Cost of Capital

## Table of Contents

I. Introduction ..... 1
II. Review of ROE Estimates and Application to New Scenarios .....  2
A. Review of ROE Estimates ..... 2
B. Estimating the RROE for the Five-Year Amortization and Retirement of Trojan Balance Scenarios ..... 4

## I. Introduction

Q. What is your name and position with Portland General Electric?
A. My name is Patrick G. Hager. My position is Manager, Regulatory Affairs. My qualifications are in Section IV of PGE Exhibit 6400.
Q. What is the purpose of your testimony?
A. In this testimony I review the return on equity (ROE) estimates I presented in PGE Exhibit 6400. I then apply that analysis to the Five-Year Amortization scenario presented in PGE Exhibit 7200.

## II. Review of ROE Estimates and Application to New Scenarios

## A. Review of ROE Estimates

Q. Please summarize how you determined the point estimates for PGE's ROE in PGE Exhibit 6400.
A. I began with my Required Return on Equity (RROE) ranges for PGE’s 1995-1996 test period that I developed in my opening and rebuttal testimonies (PGE Exhibits 700 and 2600). These ranges are shown in Table 1 below.

Table 1
Opening and Updated RROE Estimates

| Estimation Method | Opening UE 88 Testimony | Updated UE 88 Estimate |
| :---: | :---: | :---: |
| Discounted Cash Flow | 10.96\% - 11.91\% | 11.46\% - 12.10\% |
| CAPM | 11.02\% - 12.10\% | 12.65\%-13.37\% |

My direct testimony on PGE's cost of capital was filed in November 1993, using information available to investors as of June 30, 1993. My updated estimates were based on information available through mid-November 1994 and were significantly higher because the financial markets had changed substantially over the 17 -month period, including higher interest rates and increased volatility. These estimates did not include the risk that PGE would not receive a return on its Trojan investment.

I concluded that investors would have required a higher return than the authorized 9.5\% Rate of Return (ROR) and the $11.6 \%$ ROE, but that the increased return would depend on several factors, such as how fast PGE could recover its investment; whether PGE would receive its cost of debt related to its Trojan investment; the liquidity of PGE securities (PGE preferred stock, commercial paper, and long-term debt as well as PGC common stock); and
the extent to which the Commission and/or PGE had taken steps to minimize the reoccurrence of this scenario.

Based on this analysis, I developed two point estimates for PGE's required ROR and ROE, depending on the amortization period over which PGE would be allowed to collect its investment in Trojan. Table 2 below reproduces these estimates from PGE Exhibit 6400.

Table 2
Summary Results for PGE's Updated RROE
Amortization Period

| $\frac{1-\mathrm{yr}}{11.85 \%}$ | $\frac{17-\mathrm{yr}}{13.10 \%}$ |
| :--- | :--- |
| $9.62 \%$ | $10.19 \%$ |

My estimates were derived based on two factors. First, investors would demand a higher rate of return on their investment because of the increased risk that they face with investing in a company subject to the Oregon regulatory scheme. Second, the ranges I estimated in 1993 and 1994 were for a utility with average risks and PGE is no longer an electric utility with average risk.
Q. How did you determine the required ROE for the long-term (or 17-year recovery) investor?
A. The required ROE would be towards the high end of the range. I used the top quartile of my updated range as the appropriate range for the higher required ROE. This range is $12.9 \%$ to $13.4 \%$. The midpoint of the range is $13.15 \%$ or approximately 150 basis points above the $11.6 \%$ in the cost of capital stipulation. I thus used $13.1 \%$ as my point estimate.
Q. Why did you use the bottom quartile of the range for the One-Year amortization scenario?
A. The stipulated ROE was $11.6 \%$, which represented the RROE for an average electric utility. If PGE now faced the risk of a one-year amortization of a significant portion of its rate base,
then investors would face the risk of early redemption. They would require a premium over the RROE for an average electric utility. I used the upper part of the bottom quartile of the overall range as my range for the one-year amortization scenario.
Q. Please explain how you calculated the range for the One-Year Amortization scenario.
A. The bottom quartile of my range was $11.46 \%$ to $11.94 \%$, with a median of $11.7 \%$. I took the midpoint of the range between the median and the top end of the bottom quartile, yielding $11.82 \%$ or approximately 25 basis points above the $11.6 \%$ in the cost of capital stipulation. I thus used $11.85 \%$ as my point estimate.

## B. Estimating the RROE for the Five-Year Amortization and Retirement of Trojan

## Balance Scenarios

Q. Your RROE estimates for the One- and 17-year amortizations with no return are 25 and 150 basis points. The Five-Year Amortization scenario presented in PGE Exhibit 7200 is between the one- and 17-year scenarios. Wouldn't investors' RROE for a five-year amortization of Trojan investment with no return lie somewhere between these two estimates?
A. Yes. One could also reasonably infer that the RROE would lie closer to the 25 basis points estimate than the 150 basis points estimate since the five-year amortization period is much closer to the one-year than the 17-year amortization period. Also, because the relationship between risk and return is nonlinear, we could also infer that the increased return is probably less than 35 basis points, which is the approximate amount if the relationship were linear. Given these two factors, I would conclude that using an additional 25 basis points (or a total
of 50 additional basis points over the authorized ROE) as investors’ additional compensation for a five-year amortization of Trojan investment without a return is reasonable.
Q. The Retirement of Trojan Balance Scenario effectively includes amortization with no return over a period of five and a half years. Would using 50 additional basis points over the authorized ROE as additional compensation for investors be reasonable in this case as well?
A. Yes. In the context of amortizations without a return from one to 17 years, five and a half and five years are very similar. Thus, 50 basis points of additional compensation would be appropriate in either case.
Q. Does this complete your testimony?
A. Yes.

## Table of Contents

I. Introduction ..... 1
II. Additional Ratemaking Tools and Evaluation Techniques .....  2
III. New Scenario Analysis ..... 3
A. Retirement of Trojan Balance Scenario ..... 3
B. Five-Year Amortization ..... 7
C. Staff Alternative Analysis ..... 10
IV. UE 88 Net Benefit Test and the Five-Year Amortization and Retirement of Trojan Balance Scenarios ..... 11
V. UM 989 Settlement Net Benefits ..... 14
List of Exhibits ..... 19

## I. Introduction

Q. Please state your names and qualifications.
A. My name is Jay Tinker. My position is Project Manager in the Rates and Regulatory Affairs Department. My qualifications are in Section X of PGE Exhibit 6200.

My name is Stephen Schue. My position is Senior Analyst in the Rates and Regulatory Affairs Department of PGE. My qualifications are in Section X of PGE Exhibit 6200.

My name is Patrick G. Hager. My position is Manager, Regulatory Affairs. My qualifications are in Section IV of PGE Exhibit 6400.
Q. What is the purpose of your testimony?
A. The purpose of our testimony is to present the results of the different scenarios that are discussed in the testimony of Ms. Lesh, PGE Exhibit 7200, and Mr. Hager, PGE Exhibit 7300. We also separately discuss the UE 88 net benefits test (Section IV) and the benefits of the UM 989 settlement with respect to the Nuclear Electric Insurance Limited (NEIL) assumptions (Section V).

## II. Additional Ratemaking Tools and Evaluation Techniques

Q. Please describe the ratemaking tools - Building Blocks - that were used in PGE's prior direct testimony.
A. PGE Exhibit 6200 and Section IV of PGE Exhibit 6000 discuss ratemaking tools and their application. Some of the tools were:

1. The amortization period of the un-depreciated Trojan Balance;
2. The required return on common equity;
3. The calculation of the UE 88 net benefits test;
4. The classification as plant-in-service of certain Trojan components; and
5. The amortization period for certain customer credits on PGE's 1995 balance sheet.
Q. Does your supplemental testimony discuss any other evaluation techniques that the Commission could have applied on remand of UE 88 and related proceedings?
A. Yes. This testimony discusses and applies an evaluation technique that the Commission could have applied in its UM 989 decision in determining the Trojan-related balance owed by customers as of September 30, 2000. Specifically, as described in Ms. Lesh’s testimony (PGE Exhibit 7200) the Commission could have determined the net Trojan balance by taking the improper "return on" this balance collected by PGE during the 66-month period beginning April 1, 1995, and applying it to that balance. In other words, both the "return of" and "return on" plant no longer in service would be applied to retire the un-depreciated Trojan balance.

## III. New Scenario Analysis

## A. Retirement of Trojan Balance Scenario

Q. Ms. Lesh describes this scenario in her testimony PGE Exhibit 7200. What are the components you used for your analysis?
A. This scenario includes:

1. Keep the original 17-year amortization period for Trojan used in UE 88, but limit the total monthly revenue requirement to actual historical levels associated with Trojan for the period April 1995 through September 2000;
2. Recover the entire un-depreciated investment in Trojan, including the $\$ 26.6$ million disallowance imposed by the Commission in Order No. 95-322;
3. Leave $\$ 80$ million of the Trojan assets in the plant-in-service accounts, thereby ordering return of and return on this amount over a 17-year period;
4. Offset the $\$ 111$ million Boardman gain against the un-depreciated Trojan assets that were not still plant-in-service;
5. Recover the AMAX termination payment, pre-UE 88 deferred power costs and SAVE incentive over ten years; and
6. Set the authorized return on equity at $12.10 \%$.
Q. How does this decision scenario compare to the Staff Alternative scenario summarized on Page 3 of Staff Exhibit 102?
A. This decision set scenario uses the Staff alternative but differs in four respects.
7. The addition of 50 basis points to PGE's allowed return on equity;
8. The restoration of the full net benefit test disallowance, $\$ 26.8$ million, rather than the \$17.6 million used in the Staff Alternative, discussed more fully in Section IV below.
9. Initially assumes a collection of the net Trojan balance occurs over 17 years, rather than one year; and
10. The scenario revenue requirement is limited to the actual historical levels associated with Trojan for the period April 1995 through September 2000.

## Q. What are the results of this Retirement of Trojan Balance scenario?

A. This scenario results in a September 30, 2000, balance owed by customers of approximately \$156 million. PGE Exhibit 7401 sets out the major elements of this result in the same format as Staff Exhibit 102 and PGE Exhibit 6202. Two of these elements, the net balance of Trojan plant-in-service and the remaining regulatory asset balance, are the same as in Staff Exhibit 102, Page 3, i.e., approximately $\$ 43$ million and $\$ 52$ million. The net Trojan balance is approximately $\$ 61$ million at September 30, 2000. That is because the $\$ 176$ million April 1, 1995, balance is reduced by $\$ 114$ million in payments (representing both return on and return of amounts; see Line 4 of PGE Exhibit 7401). Then, the overall balance owed by customers is the sum of $\$ 43$ million, $\$ 52$ million, and $\$ 61$ million. There is no revenue requirement differential.

## Q. Have you prepared a graphical analysis of this set of factual and policy decisions?

A. Yes. PGE Exhibit 7402, Pages 1 and 2. The Revenue Requirement graph is Page 1 and the Principal Balance graph is Page 2.

## Q. Describe Page 1 of PGE Exhibit 7402.

A. This graph shows revenue requirement, by month, for this Retirement of Trojan Balance scenario and the revenue requirement for the Trojan balance as originally allowed by the

Commission in UE 88, UE 93, and UE 100. The vertical axis shows the monthly revenue requirement and the horizontal axis shows the months from April 1995 though September 2000. The solid black line on the top edge reflects historical Trojan revenue requirements.
Q. When you refer to the "Trojan revenue requirements," what do you mean?
A. We mean both the "return on" and the "return of" the undepreciated balance of Trojan during the period between April 1995 and September 2000. The Trojan revenue requirement depicted on this graph represents the total amount of Trojan that was included in PGE rates during that period.
Q. Continuing with Page 1 of PGE Exhibit 7402, what do the colored, or shaded blocks represent?
A. The colored or shaded blocks represent the revenue requirement for each of the separate building blocks of this Retirement of Trojan Balance scenario. The orange, or top block is revenue requirement for payments on the undepreciated Trojan balance. This is all "return of" with no component for "return on." The blue, or second block from the top is the revenue requirement for the additional 50 basis points of equity. The green, or third block from the top, is the revenue requirement for the Trojan assets properly classified as plant-inservice. The yellow, or bottom block, is the revenue requirement for the regulatory assets (AMAX termination payment, SAVE incentive, etc.).
Q. How does the total revenue requirement of the Retirement of Trojan Balance scenario compare to the solid black line of the original Trojan revenue requirement?
A. As you can see on Page 1 of PGE Exhibit 7402, adding all the blocks we described above, the revenue requirement of the Trojan Balance scenario is exactly equal to the original Trojan revenue requirement.

## Q. Describe Page 2 of PGE Exhibit 7402.

A. Page 2 of PGE Exhibit 7402 shows the outstanding principal balances of Trojan and the other building blocks in the Trojan Balance scenario. The vertical axis shows the total principal balance in dollars and the horizontal axis shows the months from April 1995 to September 2000. On the far left of this graph, is the starting asset balance of $\$ 349$ million. This is composed of three elements: (1) $\$ 80$ million of properly classified Trojan plant-in-service; (2) $\$ 92$ million of the regulatory asset; and (3) $\$ 176$ million of the remaining net Trojan balance, after adjustment for the net benefit restoration, the plant-in-service, and the Boardman gain. Specifically, by element:

| Historical April 1, 1995 Balance: | 340.162 (\$ million) |
| :--- | :--- |
| Boardman Gain: | $(111.151)$ |
| Trojan Plant-in-Service: | $(80.200)$ |
| Restoration of Net Benefit Test: | $\underline{26.828}$ |
| Net April 1, 1995 Balance: | 175.639 |

Q. What is represented by the amount shown on the far right side of the graph, Page 2 PGE Exhibit 7402?
A. On the far right side of this graph, Page 2 of PGE Exhibit 7402, are the asset balances as of September 30, 2000. The total amount is $\$ 155.9$ million consisting of $\$ 52.1$ million remaining of the regulatory asset, $\$ 42.6$ million of Trojan properly classified plant-in-service and $\$ 61.3$ million of remaining net Trojan balance. We discuss these results and their relation to the NEIL assumptions in Section V of this testimony.

## Q. What conclusions can you draw from the Retirement of Trojan Balance scenario?

A. Looking at Page 1 of PGE Exhibit 7402, the total revenue requirement of the scenario is always equal to the historical Trojan revenue requirement. This is the solid black line at the
top of the graph. This means that from April 1995 to October 2000 under this scenario customers neither paid too much nor too little in rates for Trojan recovery. Looking at Page 2, the total of remaining Trojan-related balances at September 30, 2000, is $\$ 156$ million, composed of the amounts discussed above.

## B. Five-Year Amortization

Q. Ms. Lesh also discusses the Five-Year Amortization scenario. What are the building blocks used in this scenario?
A. This scenario includes:

1. Recover the entire un-depreciated investment in Trojan, including the $\$ 26.6$ million disallowance imposed by the Commission in Order No. 95-322;
2. Leave $\$ 80$ million of the Trojan assets in the plant-in-service accounts, thereby ordering return of and return on this amount over a 17-year period;
3. Offset the $\$ 111$ million Boardman gain against the un-depreciated Trojan assets that were not still plant-in-service and amortize the remainder over five years.
4. Recover the AMAX termination payment, pre-UE 88 deferred power costs and SAVE incentive over 10 years; and
5. Allow a return on equity of $12.10 \%$.
Q. How does this decision scenario compare to the Staff Alternative scenario summarized on Page 3 of Staff Exhibit 102?
A. This decision set adopts the Staff alternative but differs in three respects.
6. We add 50 basis points to PGE's allowed return on equity;
7. We include the restoration of the full net benefit test disallowance, $\$ 26.8$ million, rather than the $\$ 17.6$ million used in the Staff Alternative; and
8. We collect the net Trojan balance over five years, rather than one year.

## Q. Why have you made these changes to the Staff Alternative scenario?

A. Ms. Lesh and Mr. Hager describe the policy reasons underlying these changes. As for the restoration of the net benefit test disallowance, under this set of decisions, customer benefits from the decision to close Trojan would be much greater than under the assumptions relied on by the Commission in setting rates in docket UE 88. We include a detailed discussion of the impact on the net benefits test in Section IV of this testimony.
Q. Have you prepared a graphical analysis for this Five-Year Amortization scenario?
A. Yes. PGE Exhibit 7404 Pages 1 and 2 display revenue requirements and accumulated balances by component over the 66-month period beginning April 1, 1995. PGE Exhibit 7404 has the same work up as PGE Exhibit 7402 described earlier. Page 1 shows the monthly revenue requirement components and Page 2 shows the monthly principal balances. PGE Exhibit 7403 sets out the major elements the Five-Year Amortization in the same format as Staff Exhibit 102 and PGE Exhibit 6202.
Q. How does the total revenue requirement of the Five-Year Amortization compare to the original Trojan revenue requirement?
A. The revenue requirement comparison is shown on PGE Exhibit 7404. As you can see on Page 1 of PGE Exhibit 7404, adding all the blocks we described above, the Five-Year Amortization revenue requirement is sometimes less than the original Trojan revenue requirement and sometimes more than that requirement. For example, for the UE 88 rate period, the Five-Year Amortization revenue requirement is less than the UE 88 original
requirement for Trojan. For the UE 100 rate period, the Five-Year Amortization revenue requirement is more than the Commission ordered requirement.
Q. Turning to the remaining asset balances under this scenario, what is represented by the amount shown on the far right side of the graph, Page 2 PGE Exhibit 7404?
A. On the far right side of this graph, Page 2 of PGE Exhibit 7404, are the asset balances as of September 30, 2000. The total amount is $\$ 155.9$ million consisting of $\$ 52.1$ million remaining of the regulatory asset, $\$ 42.6$ million of Trojan properly classified plant-in-service and $\$ 61.3$ million of revenue requirement differences. There is no remaining balance for Trojan. This is because this scenario amortized Trojan over five years. As a result, the Trojan balance became zero in March 2000, five years after the Commission decision in UE 88.
Q. What makes up the component for revenue requirement differences shown on Page 2 PGE Exhibit 7404?
A. This is difference between the historical revenue requirement for Trojan and the revenue requirement for the Five-Year Amortization scenario. This is the same difference as shown on the graph on Page 1 between the solid black line and the colored (or shaded) blocks. Notice the original revenue requirement was higher than the Five-Year Amortization until December 1995, but lower than the Five-Year Amortization after that time. The $\$ 61.3$ million in accumulated revenue requirement differences represents the sum of all those differences over time. There is no interest accrued on this figure. It is presented as a nominal amount as of September 30, 2000.

## C. Staff Alternative Analysis

Q. Have you also included a copy of the alternative presented by OPUC Staff on Page 3 of Staff Exhibit 102?
A. Yes. As with the other scenarios we present a table of the relevant balances, PGE Exhibit 7405. This is essentially identical to Staff 102 /Busch-Johnson /3. The summary September 30, 2000, balance owed by customers is $\$ 158.9$ million. This is the sum of $\$ 52.1$ million remaining of the regulatory asset, $\$ 42.6$ million of Trojan properly classified plant-in-service and $\$ 47.3$ million of revenue requirement differences and $\$ 17.0$ million in interest on these differences over time.

## IV. UE 88 Net Benefit Test and the Five-Year Amortization and Retirement of Trojan Balance Scenarios

Q. In the Five-Year Amortization and the Trojan Balance Scenarios discussed above, you restored the $\$ 26.8$ million that the Commission disallowed in its 1995 UE 88-related Order No. 95-322. Please describe the structure of this net benefit test.
A. Section IV of PGE Exhibit 6200 discusses the net benefit test in detail. Briefly, the Commission considered the closing of Trojan to have a net benefit to customers if:
$(X+Y)>(X+Z)$, where:
$\mathrm{X}=$ Cost to customers of the unamortized Trojan balance
$\mathrm{Y}=$ Expected allowable long-term costs of continued Trojan operation
$\mathrm{Z}=$ Expected replacement resource costs if Trojan closed
In Order No. 95-322, the Commission determined that $(\mathrm{X}+\mathrm{Y})$ was less than $(\mathrm{X}+\mathrm{Z})$ by approximately $\$ 27$ million, i.e. the net benefit test indicated that closing Trojan would cost customers $\$ 27$ million. In arriving at this conclusion, the Commission assumed that X , the cost to customers of the unamortized Trojan balance, was the same in either the closure or continued operation cases, and that Y , the expected costs of continued plant operation, were $\$ 27$ million less than Z , the expected replacement resource costs.
Q. How does the net benefit change under the Five-Year Amortization scenario presented in Part B of Section III?
A. That scenario included recovery of the net Trojan balance over five years without any return on the outstanding balance over that same period. The benefit to PGE's customers, as measured in the net benefit test framework, of no return on the outstanding balance over a five-year period is approximately $\$ 32$ million. This is the benefit to customers for being allowed to pay, without interest, the net Trojan balance over a five-year amortization period.

In terms of the Commission's 1995 net benefit test structure, X , the cost to customers of the unamortized Trojan balance, is no longer the same in the closure and continued operation cases. Instead, it is $\$ 32$ million lower in the closure case. In other words,

$$
\begin{aligned}
\mathrm{X}_{\text {Contoper }}- & \mathrm{X}_{\text {Closure }}=\$ 32 \text { million, where } \\
\mathrm{X}_{\text {Contoper }}= & \text { Cost to customers of the unamortized Trojan balance in the } \\
& \text { continued operation case } \\
\mathrm{X}_{\text {Closure }}= & \text { Cost to customers of the unamortized Trojan balance in the } \\
& \text { closure case }
\end{aligned}
$$

Then, since ( $\mathrm{Y}-\mathrm{Z}$ ) = -\$27 million, the net benefit test indicates a savings to customers of $\$ 5$ million in the closure case. In other words, the net benefit test is now:

$$
\left(\mathrm{X}_{\text {ContOper }}+\mathrm{Y}\right)-\left(\mathrm{X}_{\text {Closure }}+\mathrm{Z}\right)=\$ 32 \text { million }-\$ 27 \text { million }=\$ 5 \text { million }
$$

Q. How does the net benefit change under the Retirement of Trojan Balance scenario you presented in Part A of Section III?
A. The Trojan Balance scenario effectively spreads out collection of the no longer used Trojan plant balance over a 66-month period with no return on, with the largest piece coming at the end of that period, September 30, 2000. This imposes a time value of money penalty on PGE, or, from the April 1, 1995, net benefit test perspective, this is a decrease in customer costs of approximately $\$ 42$ million. In terms of the Commission’s 1995 net benefit test structure, X , the cost to customers of the unamortized Trojan balance, is no longer the same in the closure and continued operation cases. Instead, it is $\$ 42$ million lower in the closure case. In other words,
$\mathrm{X}_{\text {ContOper }}-\mathrm{X}_{\text {Closure }}=\$ 42$ million, where
$\mathrm{X}_{\text {ContOper }}=$ Cost to customers of the unamortized Trojan balance in the continued operation case
$\mathrm{X}_{\text {Closure }}=$ Cost to customers of the unamortized Trojan balance in the closure case

Then, since $(\mathrm{Y}-\mathrm{Z})=-\$ 27$ million, the net benefit test indicates a savings to customers of $\$ 15$ million in the closure case. In other words, the net benefit test is now:

$$
\left(\mathrm{X}_{\text {ContOper }}+\mathrm{Y}\right)-\left(\mathrm{X}_{\text {Closure }}+\mathrm{Z}\right)=\$ 42 \text { million }-\$ 27 \text { million }=\$ 15 \text { million }
$$

Q. Have you prepared graphical analyses of these revised net benefit test results associated with the Five-Year Amortization and Retirement of Trojan Balance scenarios you present in this testimony?
A. Yes. PGE Exhibits 7406 through 7408 present the original Order No. 95-322 net benefit test result and the modified results that are consistent with the new decision sets.

## V. UM 989 Settlement Net Benefits

Q. Please summarize UM 989.
A. In UM 989, we requested approval of two settlements; one between PGE and Staff; the second between PGE and CUB. UM 989 included a request for an accounting order and the approval of new tariffs which eliminated the remaining balance of Trojan at September 30, 2000, ( $\$ 180.5$ million) and removed Trojan from rates. The salient features of the settlements included:

1. Offsetting the remaining Trojan investment by using credits totaling $\$ 161.9$ million;
2. Requiring PGE to write-off approximately $\$ 5$ million in remaining unamortized Trojan investment;
3. Implementing tariffs to remove Trojan and the various credits from rates, resulting in a $\$ 10$ million rate reduction;
4. Establishing an additional $\$ 2.5$ million refund;
5. Establishing a new regulatory asset to recover accelerated tax benefits previously provided to customers; and
6. Crediting customers with sharing $55 \%$ of the final Nuclear Electric Insurance Limited (NEIL) distributions.

## Q. Did the Commission approve UM 989?

A. Yes. The Commission initially approved the settlements in Order 00-601. Subsequently, the Commission established a contested case to receive and consider evidence in support and against the settlements. The Commission issued Order 02-227, approving the settlements and stating:
"... approval of PGE’s application and the rate change established by Advice $00-13$ will benefit PGE's customers, is in the public interest, and will result in just and reasonable rates." (Order 02-227, pg. 19)
Q. Did the Commission find that the settlements in UM 989 created a financial benefit to customers?
A. Yes. The Commission found that the settlements benefited customers by approximately $\$ 16.4$ to $\$ 18.5$ million, based on two types of analyses put forward by Staff and PGE.
Q. Please describe the analysis that resulted in a $\$ 16.4$ million net benefit from the UM 989 settlement.
A. This analysis compared the balances owed to customers by PGE and those owed to PGE by customers. The table below reproduces the results from this analysis (see Page 4 of Order No. 02-227).

Table 1
"Asset Balances" Net Benefit Analysis (Dollars in Millions)

|  | No Settlement Case | Settlement Case | Net Benefit (Settlement less No Settlement Case) |
| :---: | :---: | :---: | :---: |
| PGE collects remaining Trojan investment balance | \$180.5 | N/A | \$(180.5) |
| PGE collects FAS 109 balance | \$47.4 | N/A | \$(47.4) |
| PGE refunds net credit balances | \$(161.9) | N/A | \$161.9 |
| PGE collects new regulatory asset | N/A | \$36.7 | \$36.7 |
| PGE retains 45\% of NEIL distributions | N/A | \$15.4 | \$15.4 |
| Customer Credit | N/A | \$(2.5) | \$(2.5) |
| Total NPV | \$66.0 | \$49.6 | \$(16.4) |

Q. Please describe the analysis that resulted in a $\mathbf{\$ 1 8 . 5}$ million net benefit from the UM 989 settlement.
A. This analysis compared the present value of revenue requirements associated with the regulatory assets and liabilities involved in the settlements. The table below reproduces the results from this analysis (see Page 5 of Order No. 02-227)

Table 2
"Revenue Requirement" Net Benefit Analysis (Dollars in Millions)

|  | No Settlement <br> Case | Settlement <br> Case |  | NPV Benefit (Settlement <br> less No Settlement Case) |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Net NPV of assets and liabilities |  | $\$ 68.1$ |  | $\$ 36.7$ | $\$(31.4)$ |
| involved in settlement |  | N/A | $\$(2.5)$ | $\$(2.5)$ |  |
| Customer Credit |  |  |  |  |  |

Q. How did both of these analyses treat the distribution of Nuclear Electric Insurance

## Limited (NEIL) benefits?

A. Both analyses assumed that customers were due all of the benefits of future NEIL distributions in the "no settlement" case. This approach is the most conservative in terms of estimating the customer benefit of the UM 989 settlement. If this assumption is relaxed, then the value of the settlement from customers' perspective is even greater than the $\$ 16.4$ million and $\$ 18.5$ million figures.
Q. How does the remand of UE 88 impact the analyses of net benefits from the UM 989 settlement?
A. The actual Trojan balance at September 30, 2000, was $\$ 180.5$ million. In UM 989, this balance was offset with the use of $\$ 161.9$ million of net credits owed to customers, which in the process created $\$ 16.4$ million to $\$ 18.5$ million of benefits to PGE's customers. Therefore, as long as the end result of the rate-making and policy decisions entered into by the Commission in the UE 88 remand proceeding is a balance owed to PGE that is at least $\$ 162$ million ( $\$ 180.5$ million less $\$ 18.5$ million) at September 30, 2000, the Commission could find that the UM 989 settlement produced a positive net benefit to customers. To the extent that the balance owed to PGE is less than $\$ 162$ million, it would be necessary to consider re-establishing a portion of the credits owed customers at September 30, 2000, to capture that difference.
Q. How do the NEIL assumptions affect this assessment?
A. If the assumption about NEIL in the "no settlement" case were different, then the UM 989 settlement produced more benefits to customers than $\$ 16.4$ to $\$ 18.5$ million. In other words, if in the "no settlement" case NEIL benefits should be less than the full amount of the NEIL refund, this would reduce the credits that would otherwise be owed customers at September 30, 2000, for balances less than $\$ 162$ million.
Q. The Commission's UM 989 net benefit analyses assumed that customers were entitled to receive all future NEIL refunds. How did the Commission allocate NEIL refunds?
A. The Commission determined in Order 02-227 that the $55 \%$ (to customers), $45 \%$ (to PGE) split of future NEIL refunds was reasonable. Pursuant to this determination, when a final NEIL refund of $\$ 34.2$ million was issued, PGE received $\$ 15.4$ million and customers received $\$ 18.8$ million.
Q. Can the original settlement in UM 989 be re-evaluated from the perspective that customers were only due the amount they received pursuant to the Commission's Order 02-227, $\$ 18.8$ million?
A. Yes. The net benefits analysis from 02-227 took a conservative approach by assuming that all NEIL refunds were due customers. PGE Exhibit 7409 shows the results if this assumption is relaxed. Rather than a $\$ 16.4$ million net benefit from the original settlement, the value of the settlement increases to $\$ 31.8$ million.
Q. Can Exhibit 7409 be used to evaluate the net benefit of UM 989 for the impact of the policy decisions made by the Commission regarding UE-88 from this proceeding?
A. Yes. Exhibit 7409 provides the results of the re-evaluated net benefit test for UM 989 for the three scenarios previously described, both without any modification of the original
analysis for NEIL as well as with that modification. The results of these three scenarios suggest a range of results from a net customer benefit of $\$ 10.2$ million to a net detriment of $\$ 8.2$ million. These results can inform the Commission on the amount, if any, of re-established customer credits at September 30, 2000.
Q. Does this complete your testimony?
A. Yes.

## List of Exhibits

| PGE Exhibit | Description |
| :--- | :--- |
| 7401 | Table for Retirement of Trojan Balance Scenario |
| $7402-1$ | Graph for Trojan Balance - Annual Revenue Requirements |
| $7402-2$ | Graph for Trojan Balance - Principal Balances |
| 7403 | Table for Five-Year Amortization Scenario |
| $7404-1$ | Graph for Five-Year Amortization - Annual Revenue Requirements |
| $7404-2$ | Graph for Five-Year Amortization - Principal Balances |
| 7405 | Graph of Net Benefit Test - per UE 88 |
| 7406 | Graph of Net Benefit Test - for Five-Year Amortization |
| 7407 | Graph of Net Benefit Test - for Trojan Balance |
| 7408 | UM 989 Net Benefits Test |

Start of Period
End of Period
Number of Months
Docket
Annual Revenue Requirement (\$000)
Period Revenue Requirement (\$000)

| A | B | C | D | E <br> $(E=A)$ | $F$ <br> $(F=A+B)$ | $G$ <br> $(G=A+B+C+D)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| $04 / 01 / 95$ | $11 / 28 / 95$ | $04 / 01 / 96$ | $12 / 01 / 96$ | "8-month" | "One-Year" | "5.5 Year" |
| $11 / 27 / 95$ | $03 / 31 / 96$ | $11 / 30 / 96$ | $09 / 30 / 00$ | Impact | Impact | Impact |
| 7.90 | 4.10 | 8 | 46 | 7.90 | 12 | 66 |
| UE 88 | UE 93 | UE 93 | UE 100 |  |  |  |
| 943,333 | 995,498 | 995,498 | 958,669 |  |  |  |
| 621,028 | 340,128 | 663,665 | $3,674,898$ |  |  |  |

## Retirement of Trojan Balance Scenario

## Scenario Revenue Requirement

Plant in Service - Retum On
Plant in Service - Recovery O
50 Basis Pts. ROE Increase
Coll Trojan With Full Net Ben Res., Net of Class. In-Svc and Board.
First Year Power Costs
Reg. Assets Collection Over 10 Years
Total Scenario Revenue Requirement Changes
Revenue Requirement per Rate Cases:
First Year Power Costs
Trojan Revenue Requirement
Trojan and Power Cost Revenue Requirement

Revenue Requirement Difference

| 5,221 | 2,396 | 4,452 | 20,587 | 5,221 | 7,618 | 32,657 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8,100 | 2,635 | 4,018 | 22,894 | 8,100 | 10,735 | 37,647 |
| 3,649 | 2,220 | 4,333 | 24,912 | 3,649 | 5,870 | 35,114 |
| 30,149 | 9,218 | 13,620 | 61,400 | 30,149 | 39,367 | 114,387 |
|  | 4,869 | 9,501 | 54,630 | 9,382 | $14,251$ | 78,382 |
| 9,382 |  |  |  | - | - | - |
| 56,502 | 21,338 | 35,923 | 184,424 | 56,502 | 77,840 | 298,187 |
|  |  | - | - | - | - | - |
| 56,502 | 21,338 | 35,923 | 184,424 | 56,502 | 77,840 | 298,187 |
| 56,502 | 21,338 | 35,923 | 184,424 | 56,502 | 77,840 | 298,187 |
| - | - | - | - | - | - | - |

16
Derivation of Balance Owed PGE @ 9/30/2000:
80,200 Trojan Plant in Service Balance @ 04/01/95
$(37,647)$ Recovery of Plant in Service Balance Over Period 04/01/95-09/30/00
175,639 Trojan Reg Asset Balance @ 4/1/95 (\$340 + \$27-\$111 - \$80)
$(114,387)$ Recovery of Trojan Reg Asset Over Period 4/1/95-9/30/00
52,141 Remaining Balance for Reg Assets @ 09/30/00

Trojan Balance Scenario - Monthly Revenue Requirements


## Trojan Balance Scenario - Outstanding Principal Balances



| Start of Period | 04/01/95 | 11/28/95 | 04/01/96 | 12/01/96 | "8-month" | "One-Year" | "5.5 Year" |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| End of Period | 11/27/95 | 03/31/96 | 11/30/96 | 09/30/00 | Impact | Impact | Impact |
| Number of Months | 7.90 | 4.10 | 8 | 46 | 7.90 | 12 | 66 |
| Docket | UE 88 | UE 93 | UE 93 | UE 100 |  |  |  |
| Annual Revenue Requirement (\$000) | 943,333 | 995,498 | 995,498 | 958,669 |  |  |  |
| Period Revenue Requirement (\$000) | 621,028 | 340,128 | 663,665 | 3,674,898 |  |  |  |

## Five-Year Scenario

Scenario Revenue Requirement
1 Plant in Service - Return On
2 Plant in Service - Recovery O
350 Basis Pts. ROE Increase
4 Collection of Trojan and 26.8, Net of Class. In-Service and Board., Over 5 Years
5 First Year Power Costs
6 Reg. Assets Collection Over 10 Years
Deferred First-Year Power Cost Collection Over 10 Years
8 Total Scenario Revenue Requirement Changes
10 Revenue Requirement per Rate Cases:
11 First Year Power Costs
12 Trojan Revenue Requirement
13 Trojan and Power Cost Revenue Requirement
14
15 Revenue Requirement Difference

| A | B | C | D | $\begin{gathered} E \\ (E=A) \end{gathered}$ | $\begin{gathered} F \\ (F=A+B) \end{gathered}$ | $\begin{gathered} G \\ G=A+B+C+D) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 04/01/95 | 11/28/95 | 04/01/96 | 12/01/96 | "8-month" | "One-Year" | "5.5 Year" |
| 11/27/95 | 03/31/96 | 11/30/96 | 09/30/00 | Impact | Impact | Impact |
| 7.90 | 4.10 | 8 | 46 | 7.90 | 12 | 66 |
| UE 88 | UE 93 | UE 93 | UE 100 |  |  |  |
| 943,333 | 995,498 | 995,498 | 958,669 |  |  |  |
| 621,028 | 340,128 | 663,665 | 3,674,898 |  |  |  |
| 5,221 | 2,396 | 4,452 | 20,587 | 5,221 | 7,618 | 32,657 |
| 8,100 | 2,635 | 4,018 | 22,894 | 8,100 | 10,735 | 37,647 |
| 3,649 | 2,220 | 4,333 | 24,912 | 3,649 | 5,870 | 35,114 |
| 23,126 | 12,002 | 23,419 | 117,093 | 23,126 | 35,128 | 175,639 |
| - | - | - | - | - | - | - |
| 9,382 | 4,869 | 9,501 | 54,630 | 9,382 | 14,251 | 78,382 |
| - | - | - | - | - | - | - |
| 49,479 | 24,123 | 45,721 | 240,117 | 49,479 | 73,601 | 359,439 |
| - | - | - | - | - | - | - |
| 56,502 | 21,338 | 35,923 | 184,424 | 56,502 | 77,840 | 298,187 |
| 56,502 | 21,338 | 35,923 | 184,424 | 56,502 | 77,840 | 298,187 |
| $(7,023)$ | 2,784 | 9,799 | 55,693 | $(7,023)$ | $(4,239)$ | 61,252 |

16
18 Derivation of Balance Owed PGE @ 9/30/2000:
80,200 Trojan Plant in Service Balance @ 04/01/95
$(37,647)$ Recovery of Plant in Service Balance Over Period 04/01/95-09/30/00
61,252 Revenue Requirement Differential (Scenario Revenue Requirement Less Trojan \& Pwr Cost Rev. Req.)
52,141 Remaining Balance for Reg Assets @ 09/30/00
23 155,946 Balance Owed PGE @ 9/30/2000

Five-Year Scenario - Monthly Revenue Requirements


Five-Year Scenario - Outstanding Principal Balances



## Original UE 88 Net Benefit Test

## Variable Description

X Cost to customers of the unamortized Trojan balance (same in either case)
Y Expected allowable long-term costs of continued Trojan operation
Z Replacement resource costs (in case of closure)


Net Benefit Test: Five-Year Amortization Scenario

| Variable | Description |
| :---: | :--- |
| X Contoper | Cost to customers of the unamortized Trojan balance (in continued operation case) |
| X $_{\text {Closure }}$ | Cost to customers of the unamortized Trojan balance (in closure case) |
| Y | Expected allowable long-term costs of continued Trojan operation |
| Z | Replacement resource costs (in case of closure) |



[^0]Net Benefit Test: Retirement of Trojan Balance Scenario

Variable Description
$X_{\text {ContOper }}$ Cost to customers of the unamortized Trojan balance (in continued operation case)
$X_{\text {Closure }} \quad$ Cost to customers of the unamortized Trojan balance (in closure case)
Y Expected allowable long-term costs of continued Trojan operation
Z


[^1]
## UM 989 Net Benefit Analyses

Dollars in Millions

| Original Analysis Per PUC order 02-227 p. 4 |  |  |  |
| :--- | :---: | :---: | :---: |
|  | No Settlement | Settlement | Net Benefit |
| Remaining Trojan | 180.5 |  | $(180.5)$ |
| FAS 109 Balance | 47.4 |  | $(47.4)$ |
| Net credit balance | $(161.9)$ | 161.9 |  |
| New Reg asset |  | 36.7 | 36.7 |
| Neil Dist | 0.0 | 15.4 | 15.4 |
| Customer Credit |  | $(2.5)$ | $(2.5)$ |
|  |  |  |  |
| Total | 66.0 | 49.6 | $(16.4)$ |


| Base Analysis on Actual NEIL Distribution |  |  |  |
| :--- | :---: | :---: | :---: |
|  | No Settlement |  |  |
| Remaining Trojan | 47.4 |  | $(47.4)$ |
| FAS 109 Balance | $(161.9)$ | 161.9 |  |
| Net credit balance |  | 36.7 | 36.7 |
| New Reg asset | 15.4 | 15.4 | 0.0 |
| Neil Dist | 0.0 | $(2.5)$ | $(2.5)$ |
| Customer Credit | 81.4 | 49.6 | $(31.8)$ |
| Total |  |  |  |


| Staff 1-Year Case (w/Actual NEIL Distribution) |  |  |  |
| :--- | :---: | :---: | :---: |
|  | No Settlement | Settlement | Nenefit |
| Remaining Trojan | 47.4 |  | $(158.9)$ |
| FAS 109 Balance | $(161.9)$ | 36.7 | 161.9 |
| Net credit balance |  | 36.7 |  |
| New Reg asset | 15.4 | 15.4 | 0.0 |
| Neil Dist |  | $(2.5)$ | $(2.5)$ |
| Customer Credit |  |  |  |
| Total | 59.8 | 49.6 | $(10.2)$ |

Five-Year Amort (w/Actual NEIL Distribution)

| Five-Year Amort (w/Actual NEIL Distribution) |  |  |  |
| :--- | :---: | :---: | ---: |
|  | No Settlement | Settlement | Net Benefit |
| Remaining Trojan | 47.4 |  | $(155.9)$ |
| FAS 109 Balance | $(161.9)$ | 161.9 |  |
| Net credit balance |  | 36.7 | 36.7 |
| New Reg asset | 15.4 | 15.4 | 0.0 |
| Neil Dist |  | $(2.5)$ | $(2.5)$ |
| Customer Credit |  |  |  |
|  |  | 56.8 | 49.6 |

Retirement of Trojan Balance (w/Actual NEIL Distribution)

|  | No Settlement | Settlement | Nenefit |
| :--- | :---: | :---: | :---: |
| Remaining Trojan | 47.4 |  | $(155.9)$ |
| FAS 109 Balance | $(161.9)$ | 161.9 |  |
| Net credit balance |  | 36.7 | 36.7 |
| New Reg asset | 15.4 | 15.4 | 0.0 |
| Neil Dist |  | $(2.5)$ | $(2.5)$ |
| Customer Credit |  |  |  |
|  |  |  |  |
| Total |  |  |  |
|  |  |  |  |

Staff 1-Year Case (w/ NEIL per UM 989 Net Benefit Test)

|  | No Settlement | Settlement | Net Benefit |
| :--- | :---: | :---: | :---: |
| Remaining Trojan | 158.9 |  | $(158.9)$ |
| FAS 109 Balance | 47.4 |  | $(47.4)$ |
| Net credit balance | $(161.9)$ | 36.7 | 36.7 |
| New Reg asset |  | 161.9 |  |
| Neil Dist | 0.0 | 15.4 | 15.4 |
| Customer Credit |  | $(2.5)$ | $(2.5)$ |
|  |  | 44.4 | 49.6 |
| Total |  |  | 5.2 |

Five-Year Amort (w/ NEIL per UM 989 Net Benefit Test)

|  | No Settlement | Settlement | Net Benefit |
| :--- | :---: | :---: | :---: |
| Remaining Trojan | 155.9 |  | $(155.9)$ |
| FAS 109 Balance | 47.4 |  | $(47.4)$ |
| Net credit balance | $(161.9)$ | 36.7 | 36.7 |
| New Reg asset |  | 16.9 | 15.4 |
| Neil Dist | 0.0 | 15.4 | $(2.5)$ |
| Customer Credit |  | $(2.5)$ | 8.2 |
|  |  | 41.4 | 49.6 |
| Total |  |  |  |


| Retirement of Trojan Balance (w/ NEIL per UM 989 Net Benefit Test) |  |  |  |
| :--- | :---: | :---: | :---: |
|  | No Settlement | Settlement | Net Benefit |
| Remaining Trojan | 155.9 |  | $(155.9)$ |
| FAS 109 Balance | 47.4 |  | $(47.4)$ |
| Net credit balance | $(161.9)$ | 36.7 | 161.9 |
| New Reg asset |  | 36.7 |  |
| Neil Dist | 0.0 | 15.4 | 15.4 |
| Customer Credit |  | $(2.5)$ | $(2.5)$ |
|  |  |  |  |
| Total | 41.4 | 49.6 | 8.2 |

## CERTIFICATE OF SERVICE

I hereby certify that I have this day caused the Portland General Electric Company's Motion for Leave to File Supplemental Testimony and Testimony and Exhibits of Portland General Electric Company: Pamela G. Lesh - PGE/7200 (Policy); Patrick G. Hager PGE/7300 (Cost of Capital); Jay Tinker, Stephen Schue and Patrick G. Hager - PGE/74007409 (Quantative Analysis) to be served by electronic mail to those parties whose email addresses appear on the attached service list, and by First Class US Mail, postage prepaid and properly addressed, to those parties on the attached service list who have not waived paper service.

Dated at Portland, Oregon, this 31st day of January 2007.


## UE 88/DR 10/ UM 989 SERVICE LIST

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| :--- | :--- |
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[^0]:    $\left(X_{\text {ContOper }}+Y\right)-\left(X_{\text {Closure }}+Z\right)=\$ 5$ million

[^1]:    $\left(X_{\text {ContOper }}+Y\right)-\left(X_{\text {Closure }}+Z\right)=\$ 15$ million

