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June 4, 2010

Via Electronic and US Mail

Public Utility Commission
Attn: Filing Center
550 Capitol St. NE #215
P.O. Box 2148
Salem OR 97308-2148

Re: In the Matter of PORTLAND GENERAL ELECTRIC
Request for a General Rate Revision.
Docket No. UE 215

Dear Filing Center:

Enclosed please find the original and five (5) copies of the following testimony on behalf of the Industrial Customers of Northwest Utilities in the above-referenced docket:

- Opening Testimony of Randall J. Falkenberg (ICNU/100) with Exhibits (ICNU/101, ICNU/102, ICNU/103, ICNU/105). Also enclosed are five (5) redacted copies of Opening Testimony. Confidential Exhibits ICNU/104 and ICNU/106, along with confidential testimony are being submitted in separate envelopes; and
- Opening Testimony of Dr. Alan Rosenberg (ICNU/200) with Exhibits (ICNU/201 – ICNU/207).

Also enclosed please find the original and five (5) copies of the following testimony on behalf of the Industrial Customers of Northwest Utilities and the Citizens' Utility Board of Oregon in the above-referenced docket:

- Opening Testimony of Ellen Blumenthal (ICNU-CUB/100) with Exhibits (ICNU-CUB/101 – ICNU-CUB/105). Also enclosed are five (5) redacted copies of Opening Testimony. Confidential testimony is being submitted in a separate envelope; and
- Opening Testimony of Michael Gorman (ICNU-CUB/200) with Exhibits (ICNU-CUB/201 – ICNU-CUB/223)

Thank you for your assistance.

Sincerely,

/s/ Kelli R. Madden
Kelli R. Madden
Paralegal

Enclosures

cc: Service List

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I have this day served the foregoing Opening Testimony on behalf of the of the Industrial Customers of Northwest Utilities and the Citizens' Utility Board of Oregon upon the parties, on the official service list shown below for UE 215, by causing the same to be deposited in the U.S. Mail, postage-prepaid, and via electronic mail where paper service has been waived.

Dated at Portland, Oregon, this 4th day of June, 2010.

Sincerely,

/s/ Kelli R. Madden

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**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY)
)
Request for a General Rate Revision.)
_____)

OPENING TESTIMONY AND EXHIBITS OF ELLEN BLUMENTHAL

ON BEHALF OF

THE INDUSTRIAL CUSTOMERS OF NORTHWEST UTILITIES

AND

THE CITIZENS' UTILITY BOARD OF OREGON

REDACTED VERSION

SUBJECT TO GENERAL PROTECTIVE ORDER

(Confidential Information Removed)

June 4, 2010

1 **I. PROFESSIONAL TRAINING AND EXPERIENCE**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 **A.** My name is Ellen Blumenthal. My business address is 13517 Queen Johanna Court,
4 Corpus Christi, Texas 78418.

5 **Q. PLEASE OUTLINE YOUR FORMAL EDUCATION.**

6 **A.** I received the degree of Bachelor of Arts in Journalism from the University of Texas
7 at Austin in 1974, but remained at the University to do additional course work in
8 accounting and business. I became a Certified Public Accountant in Texas in 1977.

9 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

10 **A.** I am a Principal with GDS Associates, Inc. (“GDS”).

11 **Q. PLEASE OUTLINE YOUR PROFESSIONAL EXPERIENCE.**

12 **A.** From 1975 to 1977, I worked in public accounting. My public accounting experience
13 included the preparation of financial statements, tax work, and auditing. In May
14 1977, I became a regulatory accountant with the Public Utility Commission of Texas
15 (“PUC” or “Commission”). I left the Commission in November 1980 to open an
16 office in Austin for C.H. Guernsey & Company, Consulting Architects and
17 Engineers. I became an independent consultant in 1982 and joined GDS in 2002. A
18 copy of my résumé is provided as ICNU-CUB/101.

19 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

20 **A.** Yes. Please see my résumé included at Exhibit ICNU-CUB/101 for details of my
21 previous appearances before this and other Commissions.

1 **II. INTRODUCTION AND SUMMARY**

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

3 **A.** The Industrial Customers of Northwest Utilities (“ICNU”) and the Citizens’ Utility
4 Board of Oregon (“CUB”) asked me to review Portland General Electric Company’s
5 (“PGE” or “Company”) proposed test year 2011 revenue requirements. I address
6 wages and salaries, fly ash disposal costs and three of the Company’s requests for
7 balancing accounts and accounting orders: storm restoration, environmental
8 mitigation, and self-build studies.

9 **Q. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?**

10 **A.** In Section III, I provide an overview of the Company’s rate request and of its results
11 of operations for the past few years. In Section IV, I discuss wages and salaries. In
12 Section V, I discuss the Company’s requests for balancing accounts for storm
13 damages and environmental mitigation. In Section VI, I address the Company’s
14 request to capitalize interest on self-build studies performed by its staff. Finally, in
15 Section VII, I discuss the Company’s requested costs related to the disposal of fly
16 ash.

17 **Q. PLEASE SUMMARIZE YOUR CONCLUSIONS AND**
18 **RECOMMENDATIONS.**

19 **A.** I recommend that PGE’s proposed total wages and salaries of \$202.5 million be
20 reduced by approximately \$5.9 million to \$197 million. I also recommend that the
21 Company’s requests for a balancing account for storm damage and environmental
22 mitigation costs be rejected. The Company’s proposal to capitalize interest on self-
23 build studies should be rejected. Finally, PGE’s proposed adjustment to increase base

1 rates because the federal government might classify fly ash as a hazardous material is
2 premature and should be rejected.

3 My adjustments are summarized in ICNU-CUB/102, Blumenthal/1.

4 **III. OVERVIEW**

5 **Q. PLEASE SUMMARIZE PGE'S REQUESTED REVENUE INCREASE.**

6 **A.** The Company is proposing to adjust base rates to produce \$125 million in additional
7 revenues.^{1/} The parties have reached a settlement on several issues, which will reduce
8 PGE's requested renewal increase.

9 **Q. WHAT ARE THE BASE PERIOD AND THE TEST YEAR IN THIS CASE?**

10 **A.** The base year is calendar year 2008. The test year is calendar year 2011.

11 **Q. WAS 2009 A GOOD YEAR FOR PGE?**

12 **A.** As Table 1 indicates, 2009 customer sales revenues were about 5% higher than they
13 were in 2008. Net income for 2009 was \$95 million compared to \$87 million in
14 2008.^{2/}

Table 1 - Sales to Ultimate Consumers

	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
Customer Sales	\$ 1,277,223	\$ 1,369,315	\$ 1,456,350	\$ 1,504,002	\$ 1,579,736
% change		7.21%	6.36%	3.27%	5.04%

Source: FERC Form 1

^{1/} PGE/301, Tooman-Tinker/1.

^{2/} PGE 2009 Annual Report.

1 **Q. THE SOURCE OF THE DATA IN TABLE 1 IS THE FEDERAL ENERGY**
2 **REGULATORY COMMISSION’S FORM 1. IS THIS THE SAME DATA**
3 **PROVIDED BY PGE IN ITS RESULTS OF OPERATIONS REPORTS**
4 **(“ROO”) TO THE COMMISSION?**

5 **A.** It is the same data. However, PGE makes adjustments to this data for its presentation
6 to the Commission. Confidential Table 2 summarizes these adjusted customer sales
7 from the ROO reports.

Table 2 - Adjusted Consumer Sales

	2005	2006	2007	2008	2009
Customer sales	\$ 1,326,792	\$ 1,372,270	\$ 1,505,136	\$ 1,555,251	██████████
Change		3.428%	9.682%	3.330%	██████████

Source: Results of Operations Report to OPUC; 2009 Data Confidential per ICNU Data Request No. 74

8 **Q. HOW DID PGE DEVELOP ITS REQUESTED 2011 REVENUE**
9 **REQUIREMENT?**

10 **A.** According to Mr. Tinker and Mr. Tooman, the 2011 revenue requirement is “based on
11 PGE’s 2010 budgets, and then escalated for inflation and known and measurable
12 changes.” PGE/300, Tooman-Tinker/7.

13 **Q. IS THIS THE SAME METHOD THAT PGE USED IN DOCKET NO. UE 197**
14 **TO PREDICT ITS 2009 COSTS TO PROVIDE UTILITY SERVICE?**

15 **A.** Yes.

16 **Q. HOW DID THE COMPANY’S FORECASTED 2009 TEST YEAR**
17 **OPERATING AND MAINTENANCE EXPENSES COMPARE TO THE**
18 **ACTUAL RESULTS OF OPERATIONS?**

19 **A.** As the table below demonstrates, the Company’s forecast overstated operating and
20 maintenance expenses, as well as taxes other than income taxes.

Table 3 - Comparison Projected 2009 with Actual Results of Operations

	Docket UE 197 2009 Forecast (1)	2009 Actual (2)	Forecast Greater than (Less than) Actual (3)
Production O&M	\$ 108,240	\$ 93,224	\$ 15,016
Transmission O&M	11,639	10,696	943
Distribution O&M	67,910	68,324	(414)
Customer service	73,729	66,089	7,640
A&G	120,522	113,118	7,404
	<u>\$ 382,040</u>	<u>\$ 351,451</u>	<u>\$ 30,589</u>
Other taxes	<u>\$ 94,729</u>	<u>\$ 84,248</u>	<u>\$ 10,481</u>

IV. WAGES AND SALARIES

Q. PLEASE SUMMARIZE PGE'S REQUESTED 2011 WAGE AND SALARY LEVELS.

A. As Table 1 of the Barnett-Bell testimony shows, PGE's forecasted 2011 wages and salaries are \$202.9 million. PGE/500, Barnett-Bell/2. This \$202.9 million is net of a reduction in the number of FTEs and related wages as discussed at PGE/500, Barnett-Bell/7-8. In essence, the Company has budgeted 2,648 FTE and annual wages and salaries of \$211.5 million for 2011, but has reduced these figures to reflect vacant positions (99.4 FTE and \$8 million)^{3/} and the impact of previously authorized positions.

The PGE witnesses testify that the Company's forecasted increase in wages and salaries is 2.01% compared to 2008^{4/} and that "employees' salaries are now below the market reference point."^{5/}

^{3/} ICNU-CUB/104, Blumenthal/1-3 (PGE Response to OPUC Data Request No. 221).

^{4/} PGE/500, Barnett-Bell/6.

1 **Q. DID PGE DEMONSTRATE THAT EMPLOYEE WAGES AND SALARIES**
2 **ARE BELOW THE MARKET REFERENCE POINTS?**

3 **A.** No. The Company provided market compensation data in response to OPUC Data
4 Request No. 212 and provided actual 2009 data in response to OPUC Data Requests
5 Nos. 157 and 211. The table below summarizes this data.

Table 4 - Market vs Actual Wages & Salaries

	<u>Exempt</u>	<u>Non-Exempt</u>	<u>Officer</u>	<u>Union</u>	<u>Total</u>
Market	\$ 103,275,836	\$ 25,924,773	\$ 3,519,746	\$ 59,456,437	\$ 192,176,792
Actual	\$ 109,549,620	\$ 24,793,458	\$ 3,393,518	\$ 59,456,437	\$ 197,193,033
Source: OPUC Data Requests 211 & 212					

6 The data indicates that on a total company basis, 2009 wages and salaries were
7 approximately 2.6% above market. The Company's policy is to pay within 20% of
8 the pay guide depending on the individual employee's performance.^{5/}

9 **Q. HOW DO THE COMPANY'S 2010 AND 2011 FORECASTED WAGES AND**
10 **SALARIES COMPARE TO THE ACTUAL WAGES AND SALARIES FOR**
11 **2006 THROUGH 2009?**

12 **A.** The average wages and salaries per FTE are summarized in the table below.

Table 5 - Average Employee Pay

	<u>Average Pay</u> <u>per FTE</u>	<u>Change from</u> <u>Previous Year</u>
2006 Actual	\$ 69,335	
2007 Actual	\$ 71,258	2.8%
2008 Actual	\$ 73,188	2.7%
2009 Actual	\$ 75,178	2.7%
2010 Forecast	\$ 76,266	1.4%
2011 Forecast	\$ 80,224	5.2%

^{5/} PGE/500, Barnett-Bell/8.

^{6/} ICNU-CUB/104, Blumenthal/4 (PGE Response to OPUC Data Request No. 298).

1 The average annual wage per FTE increased approximately 2.7% in each of the years
2 2007 through 2009. PGE is forecasting an increase of 1.4% for 2010 and 5.2% for
3 2011.

4 **Q. IS THE 5.2% INCREASE FOR 2011 IN LINE WITH FORECASTED**
5 **INFLATION?**

6 **A.** No. The Federal Reserve ("Fed") updated its forecast for inflation for 2010 and 2011
7 at its May 2010 meeting. The Fed raised its growth estimates for 2010 and lowered
8 its estimates for inflation. The Fed estimates that core inflation will be between 0.9
9 percent and 1.2 percent in 2010 and between 1.0 and 1.5 percent for 2011.

10 **Q. WHAT IS YOUR RECOMMENDATION WITH REGARD TO THE**
11 **COMPANY'S REQUESTED \$202.9 MILLION FOR WAGES AND SALARIES**
12 **FOR 2011?**

13 **A.** PGE's projected 5.2% increase for 2011 is excessive compared to the Fed's estimated
14 inflation. I have recalculated the 2011 average wage per exempt, non-exempt, and
15 officer FTE using the midpoint of the Fed 2010 and 2011 estimates for inflation. I
16 have not adjusted union wages since these wages are contractual. My calculation
17 begins with actual 2009 wages per FTE which I then increased for inflation. These
18 calculations, which result in total wages and salaries of \$ 197 million, are shown at
19 ICNU-CUB/103.

20 **Q. WHAT WERE THE ACTUAL WAGES FOR 2009?**

21 **A.** Actual 2009 wages and salaries were \$197.2 million for 2,623 FTE.

22 **Q. HOW MANY FTE ARE INCLUDED IN YOUR CALCULATION OF 2011**
23 **WAGES?**

24 **A.** I use the same 2,529.3 FTE that PGE included in its calculation of 2011 wages and
25 salaries.

1 **Q. WHAT IS THE DIFFERENCE BETWEEN YOUR RECOMMENDED WAGES**
2 **AND SALARIES AND PGE'S REQUESTED AMOUNT?**

3 **A.** The \$197 million I recommend is approximately \$5.9 million less than the
4 Company's requested \$202.9 million.

5 **V. BALANCING ACCOUNT PROPOSALS**

6 **Q. PLEASE SUMMARIZE THE ACCOUNTING ORDERS PGE IS**
7 **REQUESTING IN THIS CASE.**

8 **A.** PGE is proposing five decoupling mechanisms and is also seeking permission to
9 change its accounting for preliminary study costs for self-build options. PGE wants
10 the Commission to allow it to: 1) establish a storm damage reserve in the form of a
11 balancing account; 2) establish a balancing account to track pension costs; 3)
12 establish a balancing account to track environmental mitigation and remediation
13 costs; 4) account for the costs of collateral requirements related to power supply as
14 net variable power costs; and 5) smooth the impact of the O&M costs related to its
15 2020 Vision project. The Company's proposal related to pension costs has been
16 settled among the parties. I address the request for balancing accounts for storm
17 damage and environmental mitigation/remediation costs.

18 **A. Storm Damage**

19 **Q. BRIEFLY SUMMARIZE PGE'S PROPOSAL RELATED TO RECOVERY OF**
20 **STORM DAMAGE COSTS.**

21 **A.** PGE is proposing to establish a balancing account for Level III storm damage
22 restoration costs. It is proposing to cap the balance in the account at \$7 million and to
23 accrue that balance over two years. \$3.5 million would be accrued in the balancing

1 account and an additional \$1 million would be recovered through fixed O&M,
2 making the total annual storm damage cost \$4.5 million annually.

3 **Q. WHAT IS A LEVEL III STORM?**

4 **A.** The Company defines a Level III incident as one which has at least one of the
5 following characteristics:^{7/}

- 6 • Multiple substations and feeders out of service
- 7 • Greater than 50,000 customers out of service
- 8 • Three or four regions are experiencing outages
- 9 • Greater than 72 hours to restore service
- 10 • Outside assistance may be required

11 **Q. WHAT TRIGGERED THIS PROPOSAL BY PGE?**

12 **A.** PGE's existing commercial insurance for its Transmission and Distribution ("T&D")
13 assets expires on October 31, 2010. The Company is "unable to acquire replacement
14 insurance coverage with similar terms and conditions" for its T&D assets.^{8/} The
15 Company states that purchasing insurance is "not economic at this time."^{9/} Therefore,
16 the Company is proposing to self-insure.

17 **Q. EXPLAIN THE BALANCING ACCOUNT THAT PGE IS PROPOSING.**

18 **A.** PGE is proposing to accrue into a balancing account a total of \$7 million over two
19 years to pay for future Level III storm damage. The Company is also proposing to
20 include an additional \$1 million in base rates. The balancing account would track the

^{7/} ICNU-CUB/105, Blumenthal/1-2 (PGE Response to ICNU Data Request No. 29).

^{8/} PGE/800, Hawke-Nicholson/11.

^{9/} PGE/1000, Pope-Tooman/9.

1 difference between the losses incurred and charged to the balancing account and the
2 amount collected through rates. A return on the account balance would be included
3 as well. The account would be reviewed “at least every two years, at which time
4 changes could be proposed.”^{10/}

5 **Q. HOW DID PGE ARRIVE AT ITS PROPOSED \$4.5 MILLION ANNUAL**
6 **ACCRUAL?**

7 **A.** PGE determined the amount by “reviewing actual storm history and the pattern of
8 losses over the last 15 years.”^{11/}

9 **Q. ARE YOU FAMILIAR WITH SELF-INSURANCE OF T&D ASSETS BY**
10 **UTILITIES?**

11 **A.** Yes. In many parts of the country, T&D insurance has not been available at any price
12 for many years. For example, utilities in Texas have been self-insuring for storm
13 losses for over 20 years.

14 **Q. HOW IS A SELF-INSURANCE RESERVE TRACKED IN OTHER**
15 **JURISDICTIONS?**

16 **A.** The self-insurance reserve is set up in a deferred asset account and is deducted from
17 rate base as cost-free capital. The key parameters for the reserve include the annual
18 accrual, the target reserve level, and the storm damage costs that are to be charged
19 against the reserve. In each rate case, the utility provides support for any charges
20 against the reserve and the parties have the opportunity to examine those costs. One
21 of the concerns is that the Company appropriately charges storm damage restoration
22 costs to expense and capital. Another focus is that costs incurred to upgrade the

^{10/} PGE/800, Hawke-Nicholson/12.

^{11/} PGE/800, Hawke-Nicholson/12.

1 infrastructure as part of the restoration of assets destroyed or damaged by storms are
2 not charged against the reserve and are instead charged to the appropriate plant
3 accounts.

4 **Q. HAS THE COMPANY DEMONSTRATED THAT COMMERCIAL**
5 **INSURANCE IS EITHER NOT AVAILABLE OR THAT SELF-INSURING IS**
6 **THE LOWER COST ALTERNATIVE?**

7 **A.** No. The Company has simply stated that it was “unable to acquire replacement
8 insurance coverage with similar terms and conditions for our T&D system”^{12/} and that
9 it is “not economic at this time.”^{13/} Before any ratemaking treatment for storm costs
10 can be considered, the Company must demonstrate that self-insurance is the lower
11 cost alternative to commercial insurance or that insurance is not available.

12 **Q. IS THE BALANCING ACCOUNT PROPOSED BY THE UTILITY**
13 **NECESSARY WHEN A UTILITY SELF-INSURES?**

14 **A.** I think the balancing account proposed by PGE is similar to the deferred asset account
15 I discussed earlier. I do not think PGE is proposing to establish a separate tariff for
16 storm damage. There is certainly no need for a separate tariff.

17 **Q. SHOULD A SELF-INSURANCE RESERVE BE ESTABLISHED IN THIS**
18 **CASE?**

19 **A.** No. PGE has not demonstrated that self-insurance is either the lowest cost or only
20 alternative. PGE can apparently purchase insurance, but the Company has not
21 discussed the terms. The initial discussion must be about the most cost effective
22 alternative. If self-insurance is determined to be the most cost effective alternative,
23 the discussion should then turn to the appropriate target level for the reserve, the

^{12/} PGE/800, Hawke-Nicholson/11.

^{13/} PGE/1000, Pope-Tooman/9.

1 period over which that reserve should be accrued, and what costs are to be charged
2 against the reserve.

3 **Q. WHAT INFORMATION HAS THE COMPANY PROVIDED REGARDING**
4 **LEVEL III STORMS WHICH HAVE OCCURRED OVER THE PAST**
5 **TWENTY YEARS?**

6 **A.** The Company has provided several different pieces of information about the historic
7 costs to repair its T&D system after storms. The Company provided a workpaper
8 with the filename “Storm Losses.xls” which appears to show by year a description of
9 the storms and the cost to repair the damage caused by the storms. This workpaper
10 appears to be source of the Company’s requested \$4.5 million of annual storm
11 damage costs.

12 In response to OPUC Data Request No. 140, the Company identified six of
13 the storms listed in its workpaper as Level III outages/storms. These storms occurred
14 in 1995, 1996, 1998, 2004, 2006, and 2008. PGE has records for each of these storms
15 except 1995. The Company also provided the costs incurred to effect repairs, the
16 insurance premium paid, and the amount of insurance proceeds received.

17 In response to ICNU Data Request No. 29, the Company identified three
18 major storms during the last ten years – a 2004 ice storm, a 2006 windstorm, and a
19 2008 snow/ice storm. For each of these storms, PGE provided details of the repair
20 costs by FERC account. The costs charged to T&D operating and maintenance
21 expense for each storm were:

Table 6 - Storm Expenses

	<u>T&D</u>	<u>A&G</u>
January 2004 Ice Storm	\$ 3,580,065	\$ 239,236
December 2006 windstorm	6,566,048	438,919
December 2008 Snow/Ice Storm	10,594,642	1,191,050

1 **Q. IS THE INFORMATION IN THESE DATA REQUESTS SUFFICIENT TO**
2 **DETERMINE WHAT THE REASONABLE TARGET RESERVE LEVEL**
3 **SHOULD BE FOR A SELF-INSURANCE RESERVE?**

4 **A.** No. The cost data provided in these three responses to data requests do not agree.
5 PGE has not provided any explanation for the differences. The Company has not met
6 its burden to show the need for a self-insurance reserve or a reasonable level for the
7 reserve/balancing account.

8 **Q. SHOULD AN AMOUNT BE INCLUDED IN RATES FOR STORM DAMAGE?**

9 **A.** No. None of the available data is sufficient for this purpose. The data provided in the
10 Company's response to OPUC Data Request No. 140 appears to include costs that
11 were capitalized and storms that do not qualify as Level III outages. The data
12 provided in response to ICNU Data Request No. 29 may be incomplete since it does
13 not compare to the other information provided by PGE. It is premature to include any
14 amount in rates at this time because the data provided about past storms is
15 inconsistent, the cost and terms of commercial insurance has not been provided, and
16 the Company has not demonstrated that self-insuring is the least cost alternative.

1 **Q. HOW WOULD PGE RECOVER THE COSTS TO MAKE REPAIRS SHOULD**
2 **A MAJOR STORM OCCUR IF NO AMOUNT IS INCLUDED IN RATES IN**
3 **THIS CASE?**

4 **A.** If the Company were to incur substantial expense to repair T&D facilities as the result
5 of a Level III storm, it would have to come to the Commission to request that the
6 costs be deferred. In my opinion, this is the only alternative at this time given the
7 lack of information sufficient to support PGE's request for a reserve/balancing
8 account.

9 **B. Environmental Mitigation**

10 **Q. WHY IS PGE PROPOSING TO ESTABLISH A TRUE-UP MECHANISM**
11 **FOR ENVIRONMENTAL MITIGATION COSTS?**

12 **A.** The Company states that it "expects to spend \$6.5 million in 2011, yet there are
13 several Superfund sites included whose timing and funding is uncertain."^{14/} Only
14 those projects in which a federal or state agency has identified PGE as a responsible
15 party should be included in this balancing account.

16 **Q. IS ENVIRONMENTAL MITIGATION A NORMAL OPERATING EXPENSE**
17 **FOR A REGULATED PUBLIC UTILITY?**

18 **A.** Yes, it is.

19 **Q. ARE THE OTHER COSTS INCLUDED IN THE COMPANY'S REVENUE**
20 **REQUIREMENT IN THIS OR ANY RATE CASE 100% ACCURATE?**

21 **A.** No. The costs included in base rates are reasonably measurable, but will rarely be the
22 exact amount that the utility will incur during the period that rates are in effect.

^{14/} PGE/700, Quennoz-Behbehani/41.

1 **Q. IS UNCERTAINTY A SUFFICIENT REASON FOR DECOUPLING THIS**
2 **COST AND ALLOWING THE COMPANY TO RECOVER WHATEVER**
3 **AMOUNT IT SPENDS?**

4 **A.** No.

5 **Q. HAS PGE INCLUDED AN ADJUSTMENT TO ITS RETURN ON EQUITY**
6 **FOR THE REDUCTION IN RISK THAT WOULD OCCUR IF THIS COST**
7 **WERE DECOUPLED FROM BASE RATES?**

8 **A.** No.

9 **Q. SHOULD THIS PROPOSAL BE ADOPTED?**

10 **A.** No. In my opinion, environmental mitigation costs are a normal operating expense
11 and can be reasonably estimated for inclusion in base rates. The Company has the
12 opportunity in its rate cases to present its best estimate of the costs that will be
13 incurred during the period rates are in effect so that these reasonably known and
14 measurable amounts can be included in base rates.

15 **VI. SELF-BUILD STUDIES**

16 **Q. WHAT IS PGE PROPOSING WITH REGARD TO THE COSTS INCURRED**
17 **TO EVALUATE SELF-BUILD PROJECTS?**

18 **A.** PGE performs studies to evaluate the feasibility of self-build projects and to estimate
19 the costs of the projects. PGE defers these costs in FERC account 183. If the self-
20 build option is chosen, the costs deferred in account 183 are transferred to
21 construction work in progress. If the self-build option is not chosen, the costs
22 deferred in account 183 are charged to expense.

23 PGE proposes to accrue long-term debt costs on the balance of the amounts
24 recorded in FERC 183 using the Commission's authorized cost of long-term debt. If
25 the self-build option is not chosen, PGE would transfer the deferred costs to a

1 regulatory asset account that would be amortized over 5 years and recovered through
2 rates.

3 **Q. ARE THERE COMPELLING REASONS TO ADOPT THIS PROPOSAL?**

4 **A.** No. In fact, there are compelling reasons not to adopt this proposal. First, the bulk of
5 the costs incurred by the Company to develop a self-build option are undoubtedly
6 payroll costs which are included in base rates. The Company has not provided any
7 information regarding other costs that are incurred. Second, the Company states that
8 self-build options are developed in conjunction with requests for proposals. In
9 essence, the Company is either competing with vendors or is using its internal studies
10 to evaluate vendors' proposals. If the purpose of the internal study is to assist in the
11 evaluation of vendors' proposals, then the study costs should be charged to expense.
12 If the internal study is competing with vendors' proposals, then the costs incurred are
13 no different from the costs incurred by the vendors. Third, allowing PGE to recover
14 these costs will allow PGE an advantage over competing independent power
15 producers. PGE should not be allowed to use ratepayers to fund an advantage to itself
16 in the competitive bidding process.

17 **VII. FLY ASH DISPOSAL**

18 **Q. PLEASE SUMMARIZE THE COMPANY'S PROPOSED ADJUSTMENTS**
19 **RELATED TO THE DISPOSAL OF FLY ASH AT BOARDMAN.**

20 **A.** The Company has made an adjustment to decrease other revenues by approximately
21 \$500,000 and to increase operating and maintenance expenses by \$2.6 million
22 because "pending U.S. Environmental Protection Agency (EPA) regulations may

1 classify fly ash as hazardous material.”^{15/} The Company also states that this estimated
2 cost would be “re-evaluated should the EPA classify any form of fly ash” as
3 hazardous.¹⁶

4 **Q. IS THERE ANY RELIABLE ESTIMATE OF WHEN EPA MIGHT ACT ON**
5 **THESE PROPOSED REGULATIONS?**

6 **A.** No.

7 **Q. SHOULD THIS BUDGET ITEM BE INCLUDED IN PGE’S 2011 REVENUE**
8 **REQUIREMENT?**

9 **A.** No. There is no way to judge when or if the EPA will actually act on these
10 regulations or if it will amend them.

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

12 **A.** Yes, it does.

^{15/} PGE/700, Quennoz-Behbehani/11.

^{16/} Id.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY)
)
Request for a General Rate Revision.)
_____)

ICNU-CUB/101

QUALIFICATIONS OF ELLEN BLUMENTHAL

June 4, 2010

EDUCATION: University of Texas at Austin
Bachelor of Arts in Journalism, 1975
Certified Public Accountant in Texas, February 1977

PROFESSIONAL MEMBERSHIPS:
American Institute of Certified Public Accountants
Texas Society of Certified Public Accountants

EXPERIENCE:

GDS Associates, Inc., March 2002 to present

Principal of GDS Associates, Inc., Engineers and Consultants, Corpus Christi, Texas. Provides financial analysis for natural gas and electric markets; assists consumers in acquiring power needs in the competitive markets; provides analysis in gas, electric, telephone and water utility rate increase filings and presents expert testimony in regulatory proceedings on behalf of interveners. Issues addressed in testimony include all aspects of revenue requirement determination.

Independent Consultant, June 1982 to February 2002

Financial analysis for natural gas and electric markets; Provided analysis and expert witness revenue requirements testimony in gas, electric, telephone and water utility rate increase applications on behalf of intervenors.

C. H. Guernsey & Co., Consulting Engineers & Architects, November 1980 - June 1982

Title: Regulatory Accountant and Financial Analyst

Duties included preparation of financial and accounting aspects of rate filings for electric cooperatives for presentation before the Public Utility Commission of Texas. Testified as an expert witness on accounting matters before the Public Utility Commission of Texas. Advised electric cooperatives on accounting and regulatory matters. Participated in review of rate increase applications of investor-owned utilities and prepared and presented expert witness testimony based on such review. Participated in special projects such as cost-benefit analyses related to owner participation in power plants and alternative regulatory treatments for nuclear generating stations.

Public Utility Commission of Texas, May 1977 - November 1980

Title: Chief Accountant III

Duties included providing expert witness testimony in investor-owned and cooperative telephone, electric and water utility rate cases filed with the Commission in the following areas: Fuel and purchased power, Operation and maintenance expenses, Federal income taxes, Taxes other than federal income taxes, Affiliate transactions, Oil and gas exploration and development. Reviewed the books and business records of public utilities to determine the reasonableness of rate requests. Reviewed public utilities' implementation of fuel adjustment clause and other rate schedules to determine compliance with tariffs approved by Commission.

Sample List of Testimony Filed and Other Utility Projects:

Application of Oncor Electric Delivery Company LLC for Authority to Change Rates, Texas Public Utility Commission Docket No. 35717, November 2008.

Advisor to Nebraska Public Service Commission on gas utility regulatory matters. 2003 to present.

Portland General Electric Company General Rate Case, Oregon Public Utility Commission Docket UE 197, July 2008.

Petition of PNM Resources, Inc. and Cap Rock Energy Corporation Regarding Merger and Acquisition of Stock, Texas Public Utility Commission Docket No. 35640, June 2008.

Application of Entergy Gulf States for Authority to Change Rates, Texas Public Utility Commission Docket No. 34800, April 2008.

Pacific Power & Light (dba PacifiCorp) to File Tariffs Establishing Automatic Adjustment Clause under the Terms of SB 408 on behalf of the Industrial Customers of Northwest Utilities, Public Utility Commission of Oregon Docket No. UE 177, January 22, 2008.

Petition by New Mexico Utilities, Inc. for Authority to Amend Its Wastewater Rates, New Mexico Public Regulation Commission Case No. 07-00435-UT, November 2007.

United Water Connecticut, Inc. Application to Change Rates, Prepare rate filing and testimony. Connecticut Department of Public Utilities Docket No. 07-05-44, June 2007.

Application of AEP Texas Central Company for Authority to Change Rates, Texas Public Utility Commission Docket No. 33309, March 2007.

Application of AEP Texas North Company for Authority to Change Rates, Texas Public Utility Commission Docket No. 33310, March 2007.

Staff's Petition for a Reallocation of Stranded Costs Pursuant to PURA Sec. 139.253(f), Texas PUC Docket No. 32795, August 2006.

Application of Bryan Texas Utilities for Interim Update of Wholesale Transmission Rates Pursuant to Substantive Rule 25.192(g)(1), Texas Public Utility Commission Docket No. 30925, March 2005; Docket No. 32958, June 2006.

Application of AEP Texas Central Company for a Financing Order, Texas Public Utility Commission Docket No. 32475, April 2006.

Application of Texas-New Mexico Power Company to Establish a Competition Transition Charge Pursuant to P.U.C. SUBST. R. 25.263(n), Texas Public Utility Commission Docket No. 31994, March 2006.

Application of the Electric Reliability Council of Texas for Approval of the ERCOT System Administration Fee, Texas Public Utility Commission Docket No. 31824, January 2006.

Application of Entergy Gulf States, Inc. for Recovery of Transition to Competition Costs, Texas Public Utility Commission Docket No. 31544, January 2006.

Application of Sharyland Utilities, L.P. for Interim Update of Wholesale Transmission Rates Pursuant to Substantive Rule 25.192(g)(1), Texas Public Utility Commission Docket No. 31826, October 2005.

Two management audits of the Sempra Energy utilities' compliance with federal and state affiliate rules. October 2005

Petition to Inquire into the Reasonableness of the Rates and Services of Cap Rock Energy Corporation, Texas Public Utility Commission Docket No. 28813 on behalf of Pioneer Energy, August 2004.

Application of CenterPoint Energy Houston Electric, LLC, Texas Genco, LP, and Reliant Energy Retail Services, LLC to Determine Stranded Costs and Other Balances, Texas PUC Docket No. 29526, on behalf of the City of Houston and the Coalition of Cities, June 2004.

Application of AEP Texas Central Company for Authority to Change Rates, Texas PUC Docket No. 28840, on behalf of the Coalition of Commercial Ratepayers, February 2004.

Application of the Electric Reliability Council of Texas to Change the ERCOT System Administrative Fee, Texas PUC Docket No. 28832, on behalf of the Office of Public Utility Counsel, January 2004.

TXU Gas Company Statement of Intent to Change Rates in the Company's Statewide Gas Utility System, Texas Railroad Commission Docket No. 9400, on behalf of Allied Coalition of Cities, December 2003.

Application of Southwestern Electric Power Company for Authority to Reconcile Fuel Costs, Texas PUC Docket No. 28045, on behalf of the Cities Served, November 2003.

Kansas Gas Service, a Division of Oneok, Inc. Application to Change Natural Gas Rates, Kansas Corporation Commission Docket 03-KGSG-602-RTS, on behalf of Unified School District No. 259, July 2003

Application of AEP Texas Central Company for Authority to Reconcile Fuel Costs, Texas PUC Docket No. 27035 on behalf of Affected Cities, April 2003.

Application of West Texas Utilities Company for Authority to Reconcile Fuel Costs, Texas PUC Docket No. 26000 on behalf of the Office of Public Utility Counsel, October 2002.

TXU Gas Distribution Application to Change Distribution Rates in its South Region on behalf of affected Texas municipalities, Fall 2002.

Application of Ernest G. Johnson, Director of the Public Utility Division, Oklahoma Corporation Commission to Review the Rates, Charges, Services and Service Terms of Oklahoma Gas & Electric Company and all Affiliated Companies and any Affiliate or Non-Affiliate Transaction Relevant to Such Inquiry, Oklahoma Corporation Commission Cause No. PUD 200100455 on behalf of the Oklahoma Attorney General, June 2002.

Petition of the Electric Reliability Council of Texas for Approval of the ERCOT Administrative Fee, Texas PUC Docket No. 23320 on behalf of Austin Energy, May 2002.

Texas-New Mexico Power Company Application for Approval of Unbundled Cost of Service Rates, Texas PUC Docket No. 22349 on behalf of the Office of Public Utility Counsel, January 2001.

TXU Lone Star Pipeline Application to Change the City Gate Rate, Texas Railroad Commission Docket No. 8976 on behalf of the Aligned Cities, January 2000.

Reliant Energy HL&P Application for Approval of Unbundled Cost of Service Rates, Texas PUC Docket No. 22355 on behalf of the City of Houston and the Coalition of Cities, December 2000.

TXU Electric Company Application for Approval of Unbundled Cost of Service Rates, Texas PUC Docket No. 22350 on behalf of the Office of Public Utility Counsel, October 2000.

Santa Fe Pipeline Partnership, L.P., FERC Docket No. OR92-8-000, *et al* on behalf of Refinery Holding Company, L.P., January 1996.

Peoples Natural Gas Company, Rate Area Three on behalf of the Nebraska Municipalities Served, December 1995.

Compliance review of Southern Union Gas Company's fuel cost recovery in the City of El Paso on behalf of the City of El Paso, Texas, Spring 1995.

Houston Lighting and Power Company, Texas PUC Docket No. 12065 on behalf of Office of Public Utility Counsel, November 1994.

El Paso Electric Company, Texas PUC Docket No. 12700 on behalf of Office of Public Utility Counsel and The City of El Paso, Texas, June 1994.

Application of Central and South West Corporation and El Paso Electric Company For Approval of Acquisition, PUC Docket No. 12700 on behalf of Office of Public Utility Counsel, June 1994.

El Paso Electric Company, Public Utility Regulation Board of The City of El Paso, Texas on behalf of the City of El Paso, Texas, May 1994.

Kansas Pipeline Partnership and Kansas Natural Partnership, Kansas Docket No. 190,362-U on behalf of Citizens' Utility Ratepayer Board, September 1994.

KN Energy, Inc., Kansas Corporation Commission Docket No. 186,363-U on behalf of Citizens' Utility Ratepayer Board, September 1993.

City of Austin Water and Wastewater Utility before City Council on behalf of residential and small commercial ratepayers, October 1993.

Texas Utilities Electric Company, Texas PUC Docket No. 11735 on behalf of Certain Cities Served by Texas Utilities Electric Company, September 1993.

Complaint of General Counsel against Cherokee County Electric Cooperative, Inc. regarding application of Cherokee's switchover tariff, Texas PUC Docket No. 11351, on behalf of the Cooperative, June 1993.

Texas Utilities Electric Company, Texas PUC Docket No. 11735 on behalf of the Office of Public Utility Counsel, April 1993.

Application of Entergy Corporation and GSU for Sale, Transfer or Merger, Texas PUC Docket No. 11292, on behalf of Office of Public Utility Counsel, January 1993.

Peoples Natural Gas Company, Kansas Corporation Commission Docket No. 180,416-U, on behalf of the Citizens' Utility Ratepayer Board, August 1992.

Kansas Public Service Company, Kansas Corporation Commission Docket No. 179,484-U, on behalf of the Citizens' Utility Ratepayer Board, April 1992.

Complaint of NBC Telecommunications, Inc. against Southwestern Bell Telephone Company, Texas PUC Docket No. 10762, on behalf of complainant, September 1992.

Central Texas Telephone Company, Texas PUC Docket No. 9981, on behalf of the Office of Public Utility Counsel, December 1991.

Texas-New Mexico Power Company, Texas PUC Docket No. 10200, on behalf of the Office of Public Utility Counsel, December 1991.

Greeley Gas Company, Kansas Corporation Commission Docket No. 177,142-U, on behalf of the Citizens' Utility Ratepayers Board, November 1991.

Peoples Natural Gas Company, Rate Areas Two and Three on behalf of the Nebraska Municipalities Served, November 1991.

Southern Union Gas Company El Paso Service Area, Public Utility Regulatory Board of El Paso on behalf of the City of El Paso, November 1991.

City of Round Rock, Texas Water Commission Docket No. 8600-M, on behalf of Brushy Creek Municipal Utility District, October 1991.

El Paso Electric Company, Texas PUC Docket No. 9945, on behalf of the Office of Public Utility Counsel, April 1991.

Houston Lighting & Power Company, Texas PUC Docket No. 9850, on behalf of the Office of Public Utility Counsel, February 1991.

Greeley Gas Company, Kansas Corporation Commission Docket No. 170,588-U, on behalf of the Citizens' Utility Ratepayers Board, August 1990.

Rio Grande Valley Gas Company, Texas Railroad Commission Docket No. 7604, Consolidated, on behalf of the Intervener Cities, May 1990.

Southern Union Gas Company El Paso Service Area, Public Utility Regulatory Board of El Paso on behalf of the City of El Paso, October 1990.

Texas Utilities Electric Company, Texas PUC Docket No. 9300, on behalf of the Intervener Cities, April 1990.

Gulf States Utilities Company, Texas PUC Docket No. 8702, on behalf of the Intervener Cities, July 1989.

Central Power & Light Company, Texas PUC Docket No. 8646, on behalf of the Intervener Cities, June 1989.

Lower Colorado River Authority, Texas PUC Docket No. 8400, on behalf of several wholesale customers, February 1989.

Lower Colorado River Authority, Texas PUC Docket No. 8032, on behalf of several wholesale customers, June 1988.

Tawakoni Water Utility Corporation, Texas Water Commission Docket No. 7368-R, on behalf of Tawakoni Water Consumers Association, January 1988.

Hill Country Waterworks Company, Texas Water Commission Docket No. 172-W, on behalf of the City of Hill Country Village and the City of Hollywood Park, July 1987.

Detroit Edison Company, Michigan PSC, Case No. U-8683, on behalf of North Star Steel Michigan, May 1987.

Gulf States Utilities Company, Texas PUC Docket No. 7195, on behalf of North Star Steel Texas, January 1987.

Rio Grande Valley Gas Company, Texas Railroad Commission Docket No. 4717, 1984 and Docket No. 3858, on behalf of the Rio Grande Valley Cities, March 1982.

Lower Colorado River Authority, Texas PUC Docket No. 6027, on behalf of several wholesale customers, March 1985.

Houston Lighting and Power Company, Texas PUC Docket No. 4540, August 1982, on behalf of the City of Houston.

Houston Lighting & Power Company, Texas PUC Docket No. 3320, September 1980, on behalf of the Texas Public Utility Commission.

Inquiry by Public Utility Commission of Texas into Certain Affiliate transactions of Texas Electric Service Company, Texas Power and Light Company and Dallas Power and light Company, Texas PUC Docket Nos. 1517, 1813 and 1903, February 1979, on behalf of the Texas Public Utility Commission.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY)
)
Request for a General Rate Revision)
_____)

ICNU-CUB/102

PGE SUMMARY OF ADJUSTMENTS

June 4, 2010

Portland General Electric Company
Summary of Adjustments
Test Period 2011
(Thousands of Dollars)

	Company Request	ICNU Proposed Adjustments			
		ICNU DR 157	Wages	Storm Damage	Fly Ash
Operating revenues					
Sales to consumers	\$ 1,810,997	\$ -	\$ 3,601	\$ 2,742	\$ 1,585
Other operating revenues	20,961	49			500 ⁽²⁾
	<u>\$ 1,831,958</u>	<u>\$ 49</u>	<u>\$ 3,601</u>	<u>\$ 2,742</u>	<u>\$ 2,085</u>
Operating Expenses					
Net variable power cost	\$ 747,192		\$ -		
O&M	417,264		(5,908)	(4,500) ⁽¹⁾	(2,600) ⁽³⁾
Depreciation	232,564				
Other Taxes	100,645				
Income tax	65,447		2,308	1,758	1,015
Return	268,846				
	<u>\$ 1,831,958</u>	<u>\$ -</u>	<u>\$ (3,601)</u>	<u>\$ (2,742)</u>	<u>\$ (1,585)</u>

(1) PGE/800/11 at 6

(2) PGE/300/23 at 3.

(3) PGE/700/9 at 8

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY)
)
Request for a General Rate Revision.)
_____)

ICNU-CUB/103

PGE WAGE AND SALARY ADJUSTMENTS

June 4, 2010

Portland General Electric Company
Wage and Salary Adjustment
Test Period 2011

	<u>FTE</u>	<u>2009 Actual Wage/FTE (a)</u>	<u>2011 Adjusted for Inflation (b)</u>	<u>Total Wages</u>
1 Exempt	1207.4	\$ 90,164	\$ 92,250	\$ 111,382,035
2 Non-exempt	515.0	\$ 43,044	\$ 44,040	22,681,876
3 Officer	11.6	\$ 261,040	\$ 267,078	3,108,788
4 Union	<u>795.2</u>		\$ 75,234	<u>59,825,695</u>
5	<u>2529.3</u>			\$ <u>196,998,394</u>
6 Company amount				<u>202,906,420</u>
7 ICNU/CUB adjustment				<u>\$ (5,908,026)</u>

(a) OPUC DR 157

(b) Federal Reserve estimates for core inflation

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY)
)
Request for a General Rate Revision.)
_____)

ICNU-CUB/104

PGE RESPONSES TO OPUC DATA REQUESTS

June 4, 2010

April 06, 2010

TO: Vikie Bailey-Goggins
Oregon Public Utility Commission

FROM: Randy Dahlgren
Director, Regulatory Policy & Affairs

**PORTLAND GENERAL ELECTRIC
UE 215
PGE Response to OPUC Data Request
Dated March 25, 2010
Question No. 221**

Request:

In reference to PGE's adjustment to FTE in Exhibit 500, PGE states at PGE/500, Barnett-Bell/7, it has made an adjustment to remove approximately 99 FTE due to vacancies and that by doing so this represents an adjustment of \$8.0 million. However, Exhibit 500 shows an adjustment of \$8.614 million and removes approximately 118 FTE. Please identify by Responsibility Center (RC) numbers where the 99 FTE are removed and reconcile this adjustment to the \$8.0 million. In addition, please identify by RC where the remaining 19 FTE are removed from the raw data in Exhibit 500. Please itemize the number of FTE per RC and provide a brief description of the function performed by each of the FTE represented in the \$8.614 million adjustment (or the 19 FTE).

Response:

Attachment 211-A provides a summary of the adjustments with related RCs and FTE position descriptions. See also PGE's first supplemental response to OPUC Data Request No. 160, Attachment 160-A, for reconciliations of the referenced FTE adjustments.

UE 215
Attachment 221-A

FTE Adjustment Detail

DR-221, Attachment 221-A

Description	Adjustment to Incremental FTEs	\$ Adjustment to Total Wages & Salaries	RC	Comments / FTE function
FTE Adjustments:				
Adjustments for vacant positions				
Generation	(31.6)	(2,700,000)	N/A	Applied to operating area, not specific RCs or positions.
Transmission	(1.3)	(100,000)	N/A	Applied to operating area, not specific RCs or positions.
Distribution	(21.5)	(1,700,000)	N/A	Applied to operating area, not specific RCs or positions.
Customer Accounts	(17.4)	(1,000,000)	N/A	Applied to operating area, not specific RCs or positions.
A&G/IT	(27.6)	(2,500,000)	N/A	Applied to operating area, not specific RCs or positions.
Subtotals	(99.4)	(8,000,000)		
Outboard adjustments to revenue requirement				
Adjustment for Coyote Steam Sales	(3.0)	(255,000)	081	Delete 3 FTEs at Coyote Springs related to additional steam sales. Add! steam sale revenue is not included in case so the FTEs should not be either. (1 Chem tech, 2 Water treatment analysts)
Adjustment for AMI	(7.0)	(359,045)	437	Billing customer service representatives
FTE/W&S Adjustments	(109.4)	(8,514,045)		
Less impact of previously authorized items				
SB 838 - Costs charged to deferred ledger for recovery; no increase to FTEs in base rates over 2008 level.	(0.4)	No adjustment to total wages and salaries	516	Energy efficiency specialist
SB 838 - Costs charged to deferred ledger for recovery; no increase to FTEs in base rates over 2008 level.	(0.3)	No adjustment to total wages and salaries	937	Product and service development specialist
ETO - 2009 and prior, "below-the-line"; 2010-2011, costs offset by ETO revenue; no increase to FTEs in base rates over 2008 level.	(4.3)	No adjustment to total wages and salaries	516	1 supervisor, 3.3 specialists contracted to assist ETO
Biglow Canyon 2	(1.2)	No adjustment to total wages and salaries	091 & 551	One full-time Wind Technician plus a portion of two specialists and an engineer, each of which spend only a fraction of their time on work related to Biglow Canyon Phase 2 on a recurring basis. Included in UE 209 with no adjustments.
Boardman simulator	(2.0)	No adjustment to total wages and salaries	042	One operator trainee and an assistant control operator. Included in UE 197 with no specific adjustment for the Boardman s.imulator
Subtotal	(8.2)			
Total FTE Adjustments	(117.6)			

April 22, 2010

TO: Vikie Bailey-Goggins
Oregon Public Utility Commission

FROM: Randy Dahlgren
Director, Regulatory Policy & Affairs

**PORTLAND GENERAL ELECTRIC
UE 215
PGE Response to OPUC Data Request
Dated April 9, 2010
Question No. 298**

Request:

As a follow-up to PGE's response to Staff Data Request No. 67:

a. Are the labor costs for all positions loaded or non-loaded?

Response:

The labor costs listed in column D of Attachment 067-A are not loaded.

b. For each position listed, what is the classification pay range? Please list each step for the pay ranges.

Response:

PGE's policy is to pay within $\pm 20\%$ of the pay guide (see PGE's responses to OPUC Data Request Nos. 162 and 163, Attachments 162-A and 163-A, for pay guides) depending on the individual's performance.

- Critical Infrastructure Protection Analyst – EX12
- Security Specialist – EX08, EX10, and EX12
- Identity Management Specialist – EX10 and EX12
- Data Storage Administrator – EX10 and EX12
- Desktop Support Specialist – EX06, EX08, and EX10

PGE Response to OPUC Data Request No. 298
April 22, 2010
Page 2

c. When were the AMI positions hired? Please provide the dates hired and the actual annual salary for each of the three positions.

Response:

- Application Development Manager – hire date 12/01/2008; salary – see Attachment 298-A
- IT WebShere Developer – hire date 08/10/2009; salary – see Attachment 298-A
- IT Comm O&M Support – hire date 10/27/2008; salary – see Attachment 298-A

Attachment 298-A is confidential and subject to Protective Order No. 10-056.

d. For the AMI non-labor costs, were these costs included in UE 189? If not, please explain why.

Response:

Yes. See PGE's response to OPUC Data Request No. 242, Attachment 242-A, row 32 (line no. 19).

e. If these costs were not included in UE 189, were these costs included in the 2009 actuals? Please explain.

Response:

See PGE's response to part (d) above.

f. Please provide documentation for the leased circuit costs.

Response:

As noted in PGE's response to OPUC Data Request No. 078:
The contracts and estimates provided by third-party vendors are covered by confidentiality agreements, which require that the respective companies be notified before we can disclose the information requested. After PGE has completed the notification process, we will furnish copies of the requested documentation in a supplemental response to this data request (confidential and under protective order).

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY)
)
Request for a General Rate Revision.)
_____)

ICNU-CUB/105

PGE RESPONSE TO ICNU DATA REQUEST

June 4, 2010

March 29, 2010

TO: S. Bradley Van Cleve
ICNU

FROM: Randy Dahlgren
Director, Regulatory Policy & Affairs

**PORTLAND GENERAL ELECTRIC
UE 215
PGE Response to ICNU Data Request
Dated March 16, 2010
Question No. 029**

Request:

Provide the following information about each storm during the last ten years that caused PGE to incur major storm damage:

- a. **Month and year of occurrence**
- b. **Description of the weather event including duration, type and any other pertinent information**
- c. **Whether the costs related to restoring the system were covered by insurance and the amount of the insurance proceeds received**
- d. **The total costs incurred to restore the system, and the FERC account these costs were charged to.**
- e. **Explanation of how PGE accounts for capital costs related to storm damage.**
- f. **The definition of "major" that is inherent in PGE's proposal to establish a balancing account for storm damage.**
- g. **The annual premiums paid for each of the last ten years for insurance that covers storm damage.**

Response:

- a. – d. Attachments 029-A and 029-B provide the above requested information. Attachment 029-B is confidential and subject to Protective Order No. 10-056.
- e. PGE follows GAAP and FERC accounting guidelines when capitalizing costs as a result of storm damage. If the work performed to restore service is capital in nature, such costs are capitalized. For example, costs to replace poles and wire

PGE Response to ICNU Data Request No. 029

March 29, 2010

Page 2

are capitalized. Storm damage repair costs such as re-hanging wire or repairing equipment is expensed.

- f. Storms with one or more of the following types of outage characteristics will be considered a major Level III incident:
- Multiple substations and feeders out of service
 - Greater than 50,000 customers out of service
 - Three or four regions are experiencing outages
 - Greater than 72 hours to restore service
 - Outside assistance may be required.
- g. Attachments 029-A and 029-B provide the above requested information. Attachment 029-B is confidential and subject to Protective Order No. 10-056.

UE 215
Attachment 029-A

Major Storm Occurrences

a. Month / Year	b. Description	c. Covered by Ins?	Restoration Costs ⁽¹⁾	d. FERC Accts
January 2004	Duration: 5 days Snow, sleet and freezing rain; ice on trees Affected mostly areas in Southern and Eastern regions	Yes	\$ 4,196,782	163, 184, 500, 506, 553, 556, 557, 580, 590, 592, 593, 598, 903, 905, 908, 921, 925, 926, 935
December 2006	Duration: 4.5 days Wind storm; light periods of rain/snow; cold Widespread throughout entire service territory	Yes	\$ 7,522,773	107, 163, 184, 500, 506, 553, 556, 560, 580, 586, 587, 590, 592, 593, 594, 598, 902, 903, 905, 908, 909, 921, 925, 935
December 2008	Duration: 7 days Snow; ice on trees; temps below freezing Widespread throughout service territory with large concentration in Southern and Eastern regions	Yes	\$ 12,545,569	107, 108, 163, 184, 500, 506, 553, 556, 557, 560, 561.2, 570, 571, 580, 586, 587, 590, 592, 593, 594, 598, 902, 903, 905, 908, 909, 921, 925, 930.1, 935

⁽¹⁾ Includes PTO Labor Loadings.

**Job 18300 - January 2004 Ice Storm
2004 Transactions**

FERC	Ent	Ledger	CE	RC	Job	Activity	Amount
163	Total						77,728.26
184	Total						218,927.11
500	Total						3,447.97
506	Total						4,877.44
553	Total						39,172.27
556	Total						33,278.80
557	Total						49.90
580	Total						71,939.70
590	Total						10,287.87
592	Total						42,993.23
593	Total						3,454,413.22
598	Total						430.94
903	Total						28,806.59
905	Total						161,850.44
908	Total						35,446.89
921	Total						11,799.13
925	Total						358.02
926	Total						63.87
935	Total						910.60
Grand Total							4,196,782.25

Job 19393 - December 2006 Windstorm Restoration
All Transactions - 2006-2007

FERC	Ent	Ledger	CE	RC	Job	Activity	Amount
107	Total						167,972.22
163	Total						83,325.07
184	Total						208,177.56
500	Total						15,771.28
506	Total						2,047.25
553	Total						9,791.84
556	Total						30,720.75
560	Total						11,611.75
580	Total						377,982.40
586	Total						4,408.30
587	Total						5.80
590	Total						1,655.88
592	Total						86,392.24
593	Total						6,076,382.21
594	Total						1,287.50
598	Total						6,321.63
902	Total						745.32
903	Total						81,259.93
905	Total						272,313.66
908	Total						6,438.17
909	Total						1,227.11
921	Total						53,925.71
925	Total						13,604.25
935	Total						9,404.69
	Grand Total						7,522,772.52

Job 22310 - December 2008 Snow/Ice Storm Restoration
All Transactions - 2008-2009

FERC	Ent	Ledger	CE	RC	Job	Activity	Amount
107	Total						96,112.42
108	Total						12,458.66
163	Total						103,980.80
184	Total						489,541.24
500	Total						5,091.33
506	Total						2,440.86
553	Total						9,087.08
556	Total						39,906.03
557	Total						1,258.69
560	Total						2,116.90
561.2	Total						393.14
570	Total						5,974.20
571	Total						290.40
580	Total						536,852.49
586	Total						108,361.90
587	Total						8,259.72
590	Total						8,512.90
592	Total						33,032.40
593	Total						9,870,301.16
594	Total						14,428.30
598	Total						6,118.15
902	Total						13,865.45
903	Total						133,230.19
905	Total						317,845.20
908	Total						15,118.41
909	Total						1,761.45
921	Total						633,071.32
925	Total						1,046.12
926	Total						-
930.1	Total						5,939.07
935	Total						69,172.93
	Grand Total						12,545,568.91

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY)
)
Request for a General Rate Revision.)

OPENING TESTIMONY OF MICHAEL P. GORMAN

ON BEHALF OF

THE INDUSTRIAL CUSTOMERS OF NORTHWEST UTILITIES

AND

THE CITIZENS' UTILITY BOARD OF OREGON

June 4, 2010

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 **A.** Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017. I am employed by the firm of Brubaker & Associates, Inc.
4 (“BAI”), regulatory and economic consultants with corporate headquarters in
5 Chesterfield, Missouri. My qualifications are described in Exhibit ICNU-CUB/201.

6 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

7 **A.** I am testifying on behalf of the Industrial Customers of Northwest Utilities (“ICNU”) and
8 the Citizens’ Utility Board of Oregon (“CUB”). ICNU is a non-profit trade association
9 whose members are large industrial customers served by electric utilities throughout the
10 Pacific Northwest, including Portland General Electric Company (“PGE” or the
11 “Company”). CUB is a non-profit created by initiative in 1984 to ensure that residential
12 utility consumers have an effective advocate to reflect their needs and interests when it
13 comes to public policies affecting the quality and price of utility services. ORS §
14 774.020 and ORS § 774.030.

15 **Q. WHAT IS THE SUBJECT MATTER OF YOUR TESTIMONY?**

16 **A.** I will recommend a fair return on common equity and overall rate of return for PGE. I
17 will also respond to PGE’s rate of return witness, Dr. Thomas M. Zepp, and his proposed
18 return on common equity in the range of 10.9% to 12.0%.

19 **Q. ARE YOU SPONSORING ANY EXHIBITS IN CONNECTION WITH YOUR**
20 **TESTIMONY?**

21 **A.** Yes. I am sponsoring Exhibits ICNU-CUB/201 through ICNU-CUB/223.

1 **SUMMARY**

2 **Q. PLEASE SUMMARIZE YOUR RETURN ON EQUITY RECOMMENDATIONS.**

3 **A.** Based on my proposed capital structure, I recommend the Oregon Public Utility
4 Commission (“OPUC” or the “Commission”) award PGE a return on common equity of
5 9.70%. This return is developed first by selecting the midpoint of my estimated proxy
6 group range of 9.50% to 10.10%, or 9.80%. I then reduced the midpoint by 10 basis
7 points to adjust for PGE’s decoupling plan. This produced my recommended return on
8 equity of 9.70%. Based on my proposed 9.70% return on equity and capital structure, I
9 recommend an overall rate of return for PGE of 7.81%, as shown on Exhibit ICNU-
10 CUB/202, Gorman/1.

11 I demonstrate that my recommended return on equity and proposed capital
12 structure will provide PGE with an opportunity to realize cash flow financial coverages
13 and balance sheet strength that conservatively support PGE’s current bond rating.
14 Consequently, my recommended return on equity represents fair compensation for PGE’s
15 investment risk, and it will preserve the Company’s financial integrity and credit
16 standing.

17 I will also respond to PGE witness Dr. Zepp’s proposed return on equity range of
18 10.9% to 12.0%. Dr. Zepp’s proposed range includes a 20 basis point add-on to reflect
19 his belief that PGE has greater risk than the proxy group and a typical electric utility.
20 Therefore, Dr. Zepp claims that a 20 basis point addition to its return on equity is
21 necessary to reflect this increased risk. For the reasons discussed below, Dr. Zepp’s
22 recommended return on equity for PGE is excessive and should be rejected.

1 **Q. ARE YOU PROPOSING ANY ADJUSTMENTS TO PGE'S CAPITAL**
2 **STRUCTURE?**

3 **A.** Yes. PGE's proposed capital structure is based on its planning capital structure
4 composed of 50% common equity and 50% debt. This planning capital structure is more
5 heavily weighted with common equity than PGE's actual year-end 2009 capital structure
6 and its projected capital structure for the 2011 test year. Therefore, I recommend the
7 rejection of the Company's proposed target or planned capital structure. Instead, I
8 recommend the Company's forecasted test year 2011 capital structure be used to set rates
9 in this proceeding.

10 **Q. WHAT IS THE REVENUE REQUIREMENT IMPACT OF YOUR RETURN ON**
11 **EQUITY AND CAPITAL STRUCTURE ADJUSTMENTS?**

12 **A.** The revenue impact from my proposed capital structure, 9.70% return on equity and
13 7.81% overall rate of return, lowers PGE's claimed Oregon jurisdictional revenue
14 deficiency by \$29.4 million. The revenue impact from reducing the return on equity from
15 10.50% to 9.70% is \$22 million, and the impact from the capital structure adjustment is
16 \$7.4 million. The return on equity adjustment of 0.25% for the risk reducing regulatory
17 mechanisms reduces the claimed revenue deficiency by \$6.6 million.

18 The breakout of the revenue impact from my proposal to set PGE's return on
19 equity at 9.70%, my proposed adjustments to capital structure, and the additional return
20 on equity incremental adjustment for the regulatory mechanisms is developed on my
21 Exhibit ICNU-CUB/203.

22 **Q. HOW DOES YOUR RECOMMENDED RETURN ON EQUITY COMPARE TO**
23 **PGE'S CURRENT AUTHORIZED RETURN ON EQUITY IN OREGON?**

24 **A.** My recommended return on equity for PGE is slightly lower than the 10.0% return on
25 equity with a decoupling adjustment that was previously authorized to PGE in

1 January 2009, in Docket No. UE 197. Re PGE, Docket No. UE 197, Order No. 09-020 at
2 3 (Jan. 22, 2009). My proposed return on equity of 9.70% is reasonable given the
3 circumstances and market changes that have occurred since PGE's last rate case.

4 While capital markets and the economy have gone through significant distress
5 since PGE's last rate filing, capital markets have improved since the end of
6 2008/beginning of 2009, continue to strengthen and are returning to more normal capital
7 market conditions. Further, the economy has dipped into a recession, but now appears to
8 be picking up strength, and a full economic recovery is projected to take effect through
9 2010.^{1/}

10 **Q. HAVE CAPITAL MARKET COSTS DECLINED SINCE PGE'S LAST**
11 **PROCEEDING WHERE IT WAS AWARDED A RETURN ON EQUITY OF**
12 **10.1% EXCLUDING THE DECOUPLING MECHANISM?**

13 **A.** Yes. PGE's last case was filed in February 2008, and the Final Order was dated January
14 2009. As shown on my Exhibit ICNU-CUB/217, utility bond yields are currently lower
15 than they were in 2008, the time period that reflected the market data used to set PGE's
16 last authorized return on equity. Indeed, "A" rated utility bond yields are currently
17 5.81%. During 2008, the "A" utility yields averaged 6.53%. Declines in "Baa" utility
18 bond yields have been more pronounced. In 2008, "Baa" utility bond yields averaged
19 7.25%. Currently, a "Baa" utility bond yield is 6.19%, which is a decline of 105 basis
20 points. This observable market evidence clearly shows that PGE's cost of capital today is
21 lower than it was in 2008 - the time of PGE's last rate case.

^{1/} *Blue Chip Financial Forecasts*, July 1, 2009, at 2.

1 **Q. IN PGE'S LAST RATE CASE, THE COMMISSION FOUND A REDUCTION TO**
2 **THE RETURN ON EQUITY OF 0.10% WAS APPROPRIATE IF A**
3 **DECOUPLING MECHANISM WAS APPROVED. IS THE RETURN**
4 **ADJUSTMENT STILL REASONABLE?**

5 **A.** Yes. Decoupling mechanisms are unique regulatory mechanisms that allow for changes
6 to customers' charges outside of a rate case to protect the utility's opportunity to earn its
7 authorized return. PGE's decoupling mechanism allows for the deferral of certain
8 revenues in the event sales decline due to its energy efficiency and conservation efforts,
9 and weather impacts on customer usage. The existence of a deferral mechanism that
10 allows PGE to protect its profit margin in the event of reduced sales due to these factors
11 improves its opportunity to earn its authorized return on equity and reduces its operating
12 risk.

13 The Commission's determination in PGE's last rate case that a 10 basis point
14 reduction in the ROE was appropriate in recognition of this reduced operating risk is still
15 appropriate and should be continued in this case. In the event a decoupling mechanism
16 continues to be used for PGE, I recommend my 9.80% proxy group return on equity
17 should be reduced to 9.70%.

18 **Q. HOW DO CREDIT RATING AGENCIES VIEW SIMILAR DECOUPLING**
19 **MECHANISMS?**

20 **A.** Credit rating agencies view decoupling mechanisms as credit supportive because they
21 shift the risk from the utility to the ratepayers. Specifically, S&P states:

22 **Credit Implications of Decoupling**

23 Standard & Poor's views decoupling as a positive development from a
24 credit perspective. Decoupling allows utilities to project cash flow more
25 accurately and avoid much of the earnings volatility from changes to
26 weather/economy under traditional rate mechanism. To decouple sales and
27 revenues, most regulators use a tracking mechanism, such as a balancing
28 account, to record deviations from the financial projections. Standard &
29 Poor's will only consider a decoupled mechanism good for credit quality if

1 it minimizes the lag time before deferrals are included in rates, and does
2 not subject the rate changes to a protracted prudence review.

3 Nevertheless, decoupling has not been widely adopted due to the
4 following factors:

- 5 • Some utilities prefer the traditional rate mechanism, which provides for a
6 windfall when the weather is hotter than normal;
- 7 • Decoupling may shift the risk of sales volume variations associated with
8 weather/economy from the utility to the customer;
- 9 • Regulators may require a lower ROE in exchange for decoupling's reduced
10 risks;
- 11 • Decoupling's guaranteed level of distribution revenue, regardless of actual
12 performance, may promote mediocrity in the management of a utility and
13 cause a decline in customer service; and
- 14 • Previously failed decoupling experiences.^{2/}

15 **Q HAVE OTHER JURISDICTIONS REFLECTED A REDUCTION IN RISK AND A**
16 **LOWER RETURN ON EQUITY BY IMPLEMENTATION OF A DECOUPLING**
17 **MECHANISM?**

18 **A.** Yes. Other jurisdictions have recognized that decoupling mechanisms do reduce risk to
19 investors. In its decision in Docket No. 08-12-06, the Connecticut Department of Public
20 Utility Control (“DPUC”) concluded that a decoupling mechanism should not be
21 approved. However, it did note that such a mechanism would shift the risk of cost under-
22 recovery from the company to its customers and noted that if such a risk shift did take
23 place a return on equity adjustment would be appropriate. The DPUC ultimately
24 concluded that the decoupling proposal should be denied, and that it would be difficult to
25 determine the appropriate level of return on equity adjustment if one were adopted.^{3/}

^{2/} Standard & Poor’s: Decoupling: The Vehicle For Energy Conservation?, February 19, 2008 at 3.

^{3/} Connecticut Department of Public Utility Control, Decision in Docket No. 08-12-06, pp. 75-76, June 30, 2009.

1 **Q. ARE THERE ANY OTHER POTENTIAL ADJUSTMENTS TO THE RETURN**
2 **ON EQUITY BASED ON PGE'S PROPOSED MODIFIED REGULATORY**
3 **MECHANISMS THAT COULD IMPACT A FAIR RETURN ON EQUITY**
4 **RECOMMENDATION?**

5 **A.** Yes. PGE is proposing to modify its Power Cost Adjustment Mechanism ("PCAM") in a
6 way to provide even greater assurance that prices can automatically be adjusted to
7 recover its actual power costs. Modifying PGE's PCAM will further reduce its operating
8 risk and warrant consideration for an additional reduction to its return on equity relative
9 to its current operating risk.

10 **Q. HAS PGE PROPOSED TO CHANGE ITS PCAM IN THIS PROCEEDING?**

11 **A.** Yes. As outlined by PGE witnesses Mr. Patrick G. Hager and Mr. William J. Valach,
12 PGE is proposing to change the deadband to a dollar-defined deadband range, and modify
13 the earnings test that would require PGE to share power cost variance if its earnings are
14 above its authorized return on equity. PGE proposes to adjust its PCAM based on
15 changes to power cost, irrespective of what those power costs do to its earned return on
16 equity. For example, if its earned return on equity is greater than its authorized return on
17 equity, and PGE can show that its PCAM did not fully recover power costs; it will be
18 allowed to recover those expenses from retail customers. This will in effect increase its
19 actual earned return on equity further above its authorized return on equity.

20 **Q. IS PGE PROPOSING OTHER CHANGED REGULATORY MECHANISMS**
21 **THAT WILL LOWER ITS OPERATING RISK?**

22 **A.** Yes. PGE is proposing to implement several accounting deferral mechanisms including:
23 (1) an environmental cost balancing account, (2) a storm restoration cost balancing
24 account, and (3) its self-build study cost regulatory asset. Like the PCAM, these
25 balancing accounts will significantly decrease PGE's cost recovery risk, and improve the
26 likelihood that it will be able to earn its authorized returns on equity.

1 PGE's environmental cost balancing account will allow it to defer, track variance
2 and potentially recover certain environmental costs. PGE/700, Quennoz-Behbehani/41.
3 PGE is proposing to develop a balancing account to track differences between its
4 projected and actual environmental mitigation and remediation expenses for specifically
5 identified projects. PGE states that these project costs will vary significantly from year to
6 year and this balancing account will help properly normalize these expenses in its
7 ratemaking calculus.

8 PGE's proposed storm restoration cost balancing account will allow it to defer,
9 track variances and potentially restore certain storm damages costs. PGE/800, Hawke-
10 Nicholson/11. PGE's proposed storm restoration cost balancing account will track the
11 difference between actual storm damage cost and an annual accrual that will be included
12 in the development of rates. PGE proposes the amounts included in the deferred storm
13 restoration cost account be reviewed for prudence and reasonableness in a subsequent
14 rate proceeding, after which an adjustment to the annual expense included in the
15 development of rates will be made.

16 PGE's self-build study cost regulatory asset will allow it to defer, track and
17 potentially recover in the future from customers costs associated with the self-build study
18 investigation. PGE proposes to accrue long-term debt cost on self-build study cost
19 options for IRPs and/or RFP purposes. Further, it requests that the Commission allow
20 PGE to create a future regulatory asset if it selects an alternative self-build option.

21 Three of these accounting deferrals will mitigate PGE's exposures to significant
22 variations of cost between rate cases, and substantially improve its ability to recover these
23 costs and earn its authorized return on equity within rate cases. Customers, on the other

1 hand, are exposed to deferral of line item cost changes between rate cases that may or
2 may not be recovered from a full review of rates during the period those rates were
3 actually incurred. These deferral mechanisms will then increase rate escalation and
4 potential volatility in adjusting rates from rate case to rate case. This shift in risk from
5 this cost recovery in between rate cases from investors to customers should be recognized
6 by a reduced return on equity, and an increased rate escalation and/or volatility also
7 justifies a reduction in the return on equity as a transfer of risk.

8 **Q. SHOULD THE COMMISSION CONSIDER AN ADJUSTMENT TO THE**
9 **RETURN ON EQUITY IF THE COMPANY'S PROPOSED CHARGES TO THE**
10 **PCAM ARE IMPLEMENTED?**

11 **A.** Yes. These regulatory mechanisms will further reduce PGE's operating risk, which
12 would warrant a further reduction to its authorized return on equity. In effect, under the
13 Company's modified PCAM proposal, regulatory mechanisms will not ensure that rate
14 changes for power costs are made irrespective of whether or not the utility is already
15 earning its authorized return on equity. This proposal would create unnecessary rate
16 volatility on customers, because it allows for increases in prices when the utility's
17 earnings are at a fair and acceptable level, which will cause the utility's earnings to
18 exceed what the Commission found to be a fair return on equity. This increased price
19 volatility shifts operating risk to customers from the utility, and therefore justifies a
20 reduction in the compensation for risk included in the return on equity for the utility.
21 Compensation for part of this operating risk could then be shifted to customers via a
22 reduced return on equity.

1 **Q. HOW DID YOU DETERMINE AN APPROPRIATE RETURN ON EQUITY**
2 **ADJUSTMENT TO REFLECT THE RISK REDUCTION CREATED BY THE**
3 **PCAM MECHANISM?**

4 **A.** I approximated an appropriate return on equity return risk reduction by reviewing the
5 difference in market-required return available for an investment that produces a higher
6 probability of cost recovery. This market evidence is produced by the normal bond yield
7 spread between an “A” rated utility bond and a “Baa” rated utility bond. A utility bond
8 rate of “A” has a greater probability of full cost recovery and meeting its debt service
9 obligations compared to a “Baa” utility bond. For this greater cost recovery assurance,
10 the market prices “A” rated utility bonds to produce a lower yield relative to the yield on
11 “Baa” utility bonds. This yield spread represents fair compensation for greater cost
12 recovery assurance.

13 Because of recent market conditions, the yield spread between an “A” rated utility
14 bond and a “Baa” rated utility bond is still wide. This yield spread is caused by current
15 economic circumstances unrelated to utility cost recovery risk. Rather, the market
16 conditions reflected a temporary flight to quality that has caused an abnormally large
17 yield spread.

18 I estimated a more normal yield spread using the typical yield spreads that
19 prevailed during the calendar years 2004 through 2007, a period of more normal
20 economic activity. As shown below in Table 1, the average yield spread during the
21 period 2004 through 2007 is up to approximately 25 basis points. The Oregon revenue
22 requirement impact of this adjustment is about \$6.6 million.

TABLE 1
Utility Bond Yield Spreads

<u>Year</u>	<u>“A”</u>	<u>“Baa”</u>	<u>Spread</u>
2004	6.16%	6.40%	0.24%
2005	5.65%	5.93%	0.28%
2006	6.07%	6.32%	0.25%
2007	6.07%	6.33%	<u>0.26%</u>
Avg.			0.25%

Source: Exhibit ICNU-CUB/216.

1 Based on the typical spread for “A” rated utility bonds versus “Baa” utility bonds,
2 I believe an appropriate return on equity adjustment for implementing regulatory
3 mechanisms to provide greater assurance of full cost recovery, would be to lower the
4 authorized return on equity by up to 25 basis points.

RATE OF RETURN

6 **Q. HOW DID YOU ESTIMATE PGE’S CURRENT MARKET COST OF EQUITY?**

7 **A.** I did this by development of a comparable proxy investment group of publicly traded
8 utility companies that have investment risk similar to PGE. I then performed three
9 versions of the Discounted Cash Flow (“DCF”) model, Risk Premium (“RP”) study, and
10 Capital Asset Pricing Model (“CAPM”) analysis. However, my recommended return on
11 equity is based on the results of my DCF and CAPM analyses, consistent with the
12 Commission’s decisions in prior rate proceedings. Based on these assessments, and as
13 discussed in more detail below, I estimate PGE’s current market cost of equity to be
14 9.80%, without a PCAM, and 9.55% with a PCAM.

1 **Q. PLEASE SUMMARIZE THIS SECTION OF YOUR TESTIMONY.**

2 **A.** In this section of my testimony:

3 1. I will review the current electric utility industry market outlook.

4 2. I will review the investment risk of PGE.

5 3. I will propose a capital structure that will maintain PGE's financial integrity.

6 4. I will estimate a fair return on equity for PGE.

7 5. I will show that my recommended rate of return will support PGE's financial integrity
8 and investment grade bond rating.

9 6. Finally, I will respond to PGE witness Dr. Thomas M. Zepp's recommended return on
10 equity in the range of 10.9% to 12.0% and explain why it is excessive and
11 unreasonable.

12 **Electric Utility Industry Market Outlook**

13 **Q. PLEASE DESCRIBE THIS SECTION OF YOUR TESTIMONY.**

14 **A.** I will review the credit rating and investment return performance of the electric utility
15 industry. Based on the assessments below, I find the credit rating outlook of the industry
16 to be strong and supportive of the industry's financial integrity. Further, electric utility
17 stocks have exhibited strong return performance and are again characterized as a safe
18 investment.

19 **Q. PLEASE DESCRIBE THE ELECTRIC UTILITIES' CREDIT RATING
20 OUTLOOK.**

21 **A.** Standard & Poor's ("S&P") provided an assessment of the credit rating of U.S. electric
22 utilities for 2009. S&P's commentary included the following:

23 Creditworthiness in the U.S. regulated electric utility industry has
24 continued a long shift to greater stability in 2009. The number of ratings
25 changes has moderated considerably, and upgrades outpaced downgrades
26 for the third consecutive year.

* * *

1 Last year's improved creditworthiness can be traced to various factors,
2 including strengthening financial conditions, which were largely due to
3 deleveraging, increasing free cash flow, and enhanced liquidity. Other
4 principal drivers were reduced exposure to riskier unregulated ventures,
5 constructive ratemaking mechanisms, supportive rate decisions, and in the
6 case of Energy East, parent Iberdrola S.A.'s guarantee of the debt. The
7 downside actions were mainly the result of subpar bondholder protection
8 parameters, increased business risk, insufficient levels of rate relief, a
9 trading misstep, operational woes, and greater risk associated with higher
10 risk assets.^{4/}

11 From an economic standpoint, S&P stated the following:

12 **Effects on Ratings**

13 . . . Regulated electric utilities have been, and are expected to continue,
14 weathering the difficult economy with little lasting effect on the collective
15 financial risk profile of the industry, and we assess ratings and outlooks
16 based on our stable view of industry and company-specific factors.
17 Outlooks and ratings should remain predominantly unchanged, even if
18 industry conditions worsen in the near term, as described in our
19 pessimistic scenario []. However, if lack of economic growth persists for
20 an extended period, regulatory risk could rise if concerns about the plight
21 of ratepayers leads to resistance to rate increases.

* * *

22 **Solid Industry Fundamentals Support Stable Outlook**

23 Throughout 2009, U.S. electric utilities performed well with continued favorable
24 access to capital compared to most corporate issuers. Despite difficult market
25 conditions last year, external financing activity for the U.S. regulated electric
26 utility industry was about \$49.8 billion, roughly matching 2008 activity. Many
27 companies have proactively pre-financed issuance well in advance of their debt
28 maturities, taking advantage of investor appetite and favorable spreads. Investor
29 appetite for first-mortgage bonds remained healthy, and deals remained
30 oversubscribed. Credit fundamentals indicate that most, if not all, electric utilities
31 should continue to have ample access to capital markets and credit. Banking
32 syndicates are also expressing willingness to renegotiate credit facilities, although
33 at more demanding terms than in the previous years.^{5/}

^{4/} Standard & Poor's Ratings Direct on the Global Credit Portal: "Ratings Roundup: U.S. Electric Utility Sector Maintained Strong Credit Quality In A Gloomy 2009," January 26, 2010, emphasis added.

^{5/} Standard & Poor's Ratings Direct on the Global Credit Portal: "Industry Economic And Ratings Outlook: Slightly Positive Outlook For U.S. Regulated Electric Utilities Supports Rating Stability," February 2, 2010, emphasis added.

1 Moody's also acknowledges the following for the electric utility industry in its report:

2 **Overview**

3 The fundamental credit outlook for the U.S. investor-owned electric utility
4 sector remains stable, thanks to a supportive regulatory framework that
5 provides good transparency into operating cost and capital investment
6 recovery; adequate liquidity profiles; relatively unfettered access to the
7 capital markets; and reasonably stable financial credit metrics. The
8 investor-owned utility business model remains well positioned within its
9 investment-grade rating category for 2010 and at least the first half of
10 2011.^{6/}

11 Similarly, Fitch states:

12 **Overview**

13 The U.S. Utilities, Power, and Gas (UPG) sector 2010 outlook is framed in
14 the context of Fitch Ratings' outlook for a slow U.S. economic recovery in
15 2010, with stable outlooks for most of the business segments within the
16 UPG universe except for negative 2010 credit outlook for competitive
17 generators and retail propane distributors.

18 * * *

19 **Resilient Performance in 2009**

20 Companies in the UPG sector weathered the recession and financial crisis
21 of 2008–2009 with considerably less pain than sectors such as financial
22 institutions, cyclical industrials, and retailers. The absence of significant
23 defaults in the sector is in stark contrast to the upswing in defaults and
24 bankruptcy filings across the rest of the U.S. economy, consistent with the
25 defensive reputation of the sector.

26 In general, companies in the UPG sector entered 2009 in reasonably sound
27 financial condition; some drew down their bank credit facilities during the
28 banking crisis in late 2008 and repaid the loans as the bank and financial
29 markets stabilized during 2009.^{7/}

30 As noted by S&P, Moody's and Fitch above, the regulated electric utility industry
31 is maintaining strong investment grade credit and is well-positioned to weather the
32 current economic downturn. Therefore, reasoned and rational adjustments to PGE's rates

^{6/} Moody's Investors Service Industry Outlook: "U.S. Electric Utilities Face Challenges Beyond Near-Term," January 2010, emphasis added.

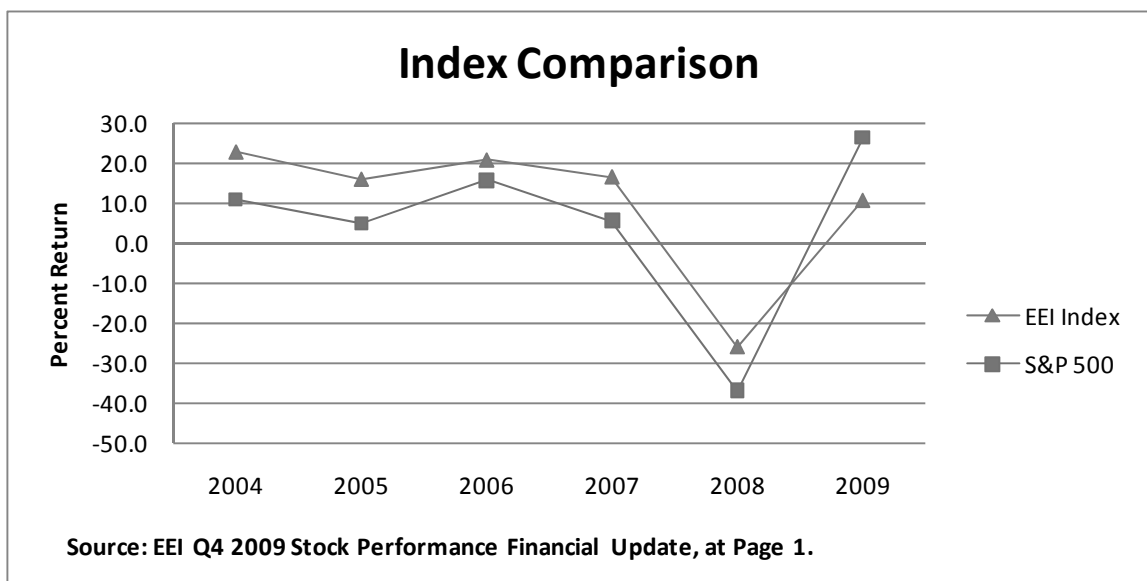
^{7/} Fitch Ratings: "U.S. Utilities, Power and Gas 2010 Outlook," December 4, 2009.

1 would be appropriate to provide fair compensation, but not excessive compensation, in an
2 effort to improve PGE's competitive position and support its credit quality.

3 **Q. PLEASE DESCRIBE ELECTRIC UTILITY STOCK PRICE PERFORMANCE**
4 **OVER THE LAST FIVE YEARS.**

5 **A.** As shown in Figure 1 below, the Edison Electric Institute ("EEI") has recorded electric
6 utility stock price performance compared to the market. The EEI data shows that its
7 Electric Utility Index has outperformed the market over the last five years (2004-2008).
8 Again, this strong stock performance indicates commission-authorized returns on equity
9 over the last several years have been positively received by the market.

FIGURE 1



10 During 2009, the EEI Index underperformed the market, which is not unusual for stocks
11 that are considered "safe havens" during periods of market turbulence. The EEI states
12 the following:

13 Given the explosive market rally that began in March, the EEI Index's
14 underperformance of the major averages is not surprising. Defensive
15 stocks typically lag early in market rebounds coming out of recessions,
16 and the EEI Index surpassed broad market returns in each year from 2004
17 through 2008. Five years is a long stretch of outperformance for any

1 industry but especially so for the traditionally staid and conservative
2 utilities, who spent much of the middle years of the past decade rebuilding
3 balance sheets and refocusing business strategies on basic regulated
4 distribution and generation after the turbulence and missteps into non-core
5 businesses that followed deregulation in the late 1990s.

6 **Utilities a Winner for the Decade**

7 Indeed, the industry's return to its roots in the traditional power business
8 proved a winning strategy for long-term growth of shareholder value
9 during the decade that just ended. From January 1, 2000 through
10 December 31, 2009, the EEI Index returned 134%, substantially
11 outperforming the Dow Jones Industrials 14% return, the S&P 500's -9%
12 return, and the Nasdaq's 44% decline. The tech-heavy Nasdaq never fully
13 retraced the ground lost after the tech bubble collapsed in 2001, and the
14 S&P 500 was also heavily weighted with technology at the decade's start,
15 which accounts in part for its negative showing. The financial crisis and
16 "Great Recession" (the popular label for our current economic malaise)
17 capped the ten-year stretch, producing severe losses in financial stocks and
18 a new round of weakness for the Nasdaq. All in all, conservative,
19 plodding utilities were the tortoise that outran the hare, demonstrating that
20 sound regulation, financial stability, operational and service excellence
21 and good investment returns can all coexist, and in fact be mutually
22 reinforcing.

* * *

23 **Fundamentals Remain Solid**

24 While the changed economic landscape since mid-2008 has diminished
25 the industry's near-term earnings prospects, industry analysts continue to
26 believe that many companies offer potential for a return to reasonably
27 strong earnings growth — supported by rate base growth and rate relief
28 from cases decided in recent months — as the economy recovers from
29 recession and enters a new expansion phase.

30 * * *

31 In fact, the industry's generally strong balance sheets and credit ratings,
32 and its strategic focus on predictable regulatory treatment (such as pre-
33 approval of major projects and construction work-in-progress rate
34 treatment in several states) were key factors that enabled companies to
35 access capital throughout the credit crisis of late 2008/early 2009.

36
37 The industry's positive long-term fundamental outlook and attractive
38 dividend yields will likely continue to appeal to investors looking for
39 stable investments in today's difficult economic environment. As the year
40 came to an end, a number of analysts remarked on the relative

1 undervaluation of regulated utility stocks relative to the broad market, and
2 suggested that the underperformance in 2009 was unlikely to be
3 sustained.^{8/}

4 **PGE Investment Risk**

5 **Q. PLEASE PROVIDE A BRIEF OVERVIEW OF PGE AND ITS INVESTMENT**
6 **CHARACTERISTICS.**

7 **A.** PGE’s corporate credit ratings from S&P and Moody’s are “BBB” and “Baa2,”
8 respectively. PGE’s senior secured credit ratings from S&P and Moody’s are “A-” and
9 “A3,” respectively.^{9/} Specifically, S&P states the following:

10 **Major Rating Factors**

11 **Strengths:**

- 12 • Regulatory mechanisms for the recovery of capital and power costs
13 that include a forecast test year for general rate cases that allows the
14 company to collect in rates sizable new plant additions when they
15 come online, an annual mechanism to update power costs based on
16 projections, and a power cost adjuster that tracks differences between
17 actual costs and those authorized in rates (although we would note that
18 the threshold for Portland General Electric Co.’s recovery of deferrals
19 is high);
- 20 • An automatic adjustment clause for tracking renewable power costs
21 into customer rates, which allows retail rates to reflect large wind
22 projects sooner; and
- 23 • Absence of unregulated activities, with a focus on core utility
24 operations.

25 **Weaknesses:**

- 26 • A significant recessionary impact to the company’s service area that
27 has hit the forest products and manufacturing industries very hard and
28 may have a long-term effect;
- 29 • Poor management of regulatory risk, as evidenced in part by the
30 chronic under-earning of authorized returns and recovery mechanisms
31 that have lagged industry standards;

^{8/} *EEI Q4 2009 Stock Performance Financial Update*, emphasis added.

^{9/} PGE/1104, Hager-Valach/1.

- 1 • Inflexibility of a large portion of capital expenditures due in part to
2 renewable and environmental mandates, which increase the need for
3 external capital; and
- 4 • The potential for unfavorable class action rulings related to the
5 shuttered Trojan nuclear power plant (plaintiffs have asked for \$260
6 million in damages).^{10/}

7 Similarly, Moody's states:

8 **Summary Rating Rationale**

9 PGE's ratings take into account its business and regulatory risk profile,
10 which is influenced by the vertically integrated aspects of its single-state
11 utility operations and management's collaborative working relationship
12 with the OPUC during a period of increased need for rate case activity; a
13 still sizable, albeit somewhat moderating capital program; and historically
14 solid credit metrics, which have come under some pressure in the first half
15 of 2009, particularly so in the second quarter. The ratings also factor in
16 PGE's resource strategy and liquidity profile, both of which we consider
17 to be proactively managed and appropriate for the utility's current
18 operating profile.

19 **Business and Regulatory Risk Profile is Supportive of Credit Quality**

20 Our assessment of PGE's business and regulatory risk profile takes into
21 account the efficiency of its generation fleet, careful cost controls, and
22 generally credit positive rate case outcomes, due in part from the benefits
23 of using a forward test year to minimize regulatory lag. We also have a
24 favorable view of the mechanism that allows PGE to achieve more stable
25 earnings by sharing with customers a portion of the higher power costs
26 that are periodically incurred due to the variability in hydro and
27 commodity market conditions and fluctuations in owned plant operations.
28 Additional credit supportive aspects of the Oregon regulatory environment
29 include the renewable adjustment clause through which PGE can address
30 recovery of the costs of renewable resources through a separate tracker,
31 and a decoupling mechanism introduced in February 2009 for a two year
32 trial period to mitigate the earnings effects of reduced sales volumes
33 because of customer efficiency and other conservation efforts.

* * *

34 **Rating Outlook**

35 The positive rating outlook assumes that PGE will continue to follow
36 conservative financing strategies to fund its large capital program. Doing
37 so, while continuing to receive supportive regulation in Oregon, would

^{10/} Standard & Poor's Ratings Direct on the Global Credit Portal: "Portland General Electric Co.,"
February 3, 2010, emphasis added.

1 likely help PGE achieve key credit metrics at sufficiently solid levels, on
2 average, to potentially support a higher rating.^{11/}

3 **Q. WHAT DO YOU RECOMMEND THE COMMISSION TAKE FROM THIS**
4 **CREDIT REPORT REVIEW OF THE REGULATORY TREATMENT PGE IS**
5 **RECEIVING?**

6 **A.** Credit analysts consider the regulatory treatment for PGE to be constructive and
7 supportive of PGE’s “Strong” business risk profile and stable investment grade credit
8 standing.

9 **PGE’s Proposed Capital Structure**

10 **Q. WHAT CAPITAL STRUCTURE IS THE COMPANY REQUESTING TO USE TO**
11 **DEVELOP ITS OVERALL RATE OF RETURN FOR ELECTRIC OPERATIONS**
12 **IN THIS PROCEEDING?**

13 **A.** PGE’s proposed capital structure, as supported by PGE witnesses Mr. Hager and Mr.
14 Valach, is shown below in Table 2.

<u>Description</u>	<u>Percent of Total Capital</u>
Long-Term Debt	50.00%
Common Equity	<u>50.00%</u>
Total Capital Structure	100.00%

Source: PGE/1100, Hager-Valach/3.

^{11/} Moody’s Investor Services: “Portland General Electric Company,” September 24, 2009, emphasis added.

1 **Q. HOW DID PGE WITNESSES HAGER AND VALACH DEVELOP THE**
2 **PROPOSED CAPITAL STRUCTURE FOR RATEMAKING PURPOSES?**

3 **A.** Their capital structure is based on their target capital structure weights for planning
4 purposes. Importantly, the Company’s projected test year capital structure is not based
5 on its projected 2011 test year capital structure.

6 **Q. WHAT IS THE COMPANY’S FORECASTED CAPITAL STRUCTURE FOR**
7 **THE 2011 TEST YEAR?**

8 **A.** The Company’s forecasted test year capital structure is shown below in Table 3.

TABLE 3
PGE’s Forecasted Test Year Capital Structure
(Test Year 2011)

<u>Description</u>	<u>Amount</u>	<u>Percent of Total Capital</u>
Long-Term Debt	\$1,809.6	52.2%
Common Equity	<u>1,657.8</u>	<u>47.8%</u>
Total Capital Structure	\$3,467.4	100.00%

Source: PGE/1100, Hager-Valach/3.

9 However, the Company’s proposed target capital structure reflects significantly
10 more common equity than both 2009 actual and the projected test year 2011 capital
11 structure.

12 **Q. IS PGE’S PROPOSED CAPITAL STRUCTURE REASONABLE?**

13 **A.** No. The Company’s proposed capital structure is based on a planning “target” capital
14 structure, and not a test year projected or actual capital structure. This proposed capital
15 structure, however, contains significantly more common equity than the Company’s
16 actual capital structure at year-end 2009, and its projected 2011 capital structure.

1 **Q. SHOULD THE COMMISSION APPROVE THE COMPANY'S TARGETED**
2 **CAPITAL STRUCTURE FOR SETTING RATES?**

3 **A.** No. The targeted capital structure contains far more common equity than PGE's actual
4 capital structure, and as a result unnecessarily increases its claimed revenue deficiencies,
5 and will unnecessarily increase retail rates in this proceeding.

6 **Q. WHY WOULD A FORECASTED TARGET CAPITAL STRUCTURE THAT**
7 **CONTAINS MORE COMMON EQUITY INCREASE PGE'S CLAIMED**
8 **REVENUE DEFICIENCY IN THIS PROCEEDING?**

9 **A.** Increasing PGE's equity component unreasonably inflates the Company's revenue
10 requirements and places additional burden on the ratepayers. Therefore, the Commission
11 should adopt PGE's actual capital structure.

12 **Q. WHY WOULD RELYING ON A CAPITAL STRUCTURE TOO HEAVILY**
13 **WEIGHTED WITH COMMON EQUITY UNNECESSARILY INCREASE PGE'S**
14 **REVENUE REQUIREMENT?**

15 **A.** This happens because common equity is the most expensive form of capital, and it is
16 subject to income tax expense. Consider, for example, the difference between the
17 revenue requirement cost of common equity and that of debt. At an authorized return of
18 10%, and a consolidated income tax rate of 40%, the revenue requirement cost of
19 common equity capital would be 16.7%. In comparison, at a "BBB" bond rating, PGE's
20 marginal cost of debt currently is about 6%. Hence, the revenue requirement cost of
21 common equity is more than two and one-half times as expensive as that of debt. Thus,
22 increasing the weight of common equity, and decreasing the weight of debt capital
23 supporting the utility's rate base, will unnecessarily increase the revenue requirement.

24 As discussed below, an appropriate capital structure should reflect a reasonable
25 balance of equity and debt capital. The balance should be based on the appropriate

1 financial risk and operating risk of the underlying utility, and a capital structure that is
2 reasonably consistent with maintaining its current or target bond rating.

3 **Q. WHAT IS YOUR PROPOSED CAPITAL STRUCTURE IN THIS PROCEEDING**
4 **IF A FUTURE TEST YEAR IS USED TO SET RATES?**

5 **A.** My proposed capital structure is shown below in Table 4.

TABLE 4	
<u>Actual Capital Structure</u>	
(Projected 2011)	
<u>Description</u>	<u>Percent of</u>
	<u>Total Capital</u>
Long-Term Debt	52.19%
Common Equity	47.81%
Total Capital Structure	100.00%

Source: PGE/1100, Hager-Valach/3.

6 My proposed capital structure reflects PGE's projected test year (2011) capital structure,
7 and is reasonably comparable to its actual capital structure at year-end 2009 as reflected
8 in the Company's Securities and Exchange Commission Form 10-K.

9 **Q. ARE THERE OTHER REASONS WHY YOUR PROPOSED CAPITAL**
10 **STRUCTURE IS MORE REASONABLE THAN RELYING ON PGE'S**
11 **PROPOSED TARGETED CAPITAL STRUCTURE?**

12 **A.** Yes. My proposed capital structure is more consistent with the proxy group capital
13 structure that I use to estimate PGE's return on equity in this proceeding. Therefore, this
14 capital structure represents a level of financial risk that is comparable to the proxy group
15 that will be relied on to estimate a fair return on equity.

1 **Q. WILL YOUR PROPOSED CAPITAL STRUCTURE SUPPORT PGE'S**
2 **FINANCIAL INTEGRITY AND CREDIT RATING?**

3 **A.** Yes. As I will discuss later in my testimony, my proposed capital structure is consistent
4 with PGE's current credit rating and will support PGE's financial integrity.

5 **Return on Common Equity**

6 **Q. PLEASE DESCRIBE WHAT IS MEANT BY A "UTILITY'S COST OF**
7 **COMMON EQUITY."**

8 **A.** A utility's cost of common equity is the return investors expect, or require, in order to
9 make an investment. Investors expect to achieve their return requirement from receiving
10 dividends and stock price appreciation.

11 **Q. PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A**
12 **REGULATED UTILITY'S COST OF COMMON EQUITY.**

13 **A.** In general, determining a fair cost of common equity for a regulated utility has been
14 framed by two decisions of the U.S. Supreme Court: Bluefield Water Works &
15 Improvement Co. v. Pub. Serv. Comm'n of W. Va., 262 U.S. 679 (1923) and Fed. Power
16 Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944).

17 These decisions identify the general standards to be considered in establishing the
18 cost of common equity for a public utility. Those general standards provide that the
19 authorized return should: (1) be sufficient to maintain financial integrity; (2) attract
20 capital under reasonable terms; and (3) be commensurate with returns investors could
21 earn by investing in other enterprises of comparable risk.

22 **Q. PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE THE**
23 **COST OF COMMON EQUITY FOR PGE.**

24 **A.** I have used several models based on financial theory to estimate PGE's cost of common
25 equity. These models are: (1) a constant growth Discounted Cash Flow ("DCF") model;

1 (2) a sustainable growth DCF model; (3) a multi-stage growth DCF model; and (4) a
2 Capital Asset Pricing Model (“CAPM”). I have applied these models to a group of
3 publicly traded utilities that I have determined reflect investment risk similar to PGE.

4 **Q. HOW DID YOU SELECT A PROXY GROUP OF UTILITIES SIMILAR IN**
5 **INVESTMENT RISK TO PGE TO ESTIMATE ITS CURRENT MARKET COST**
6 **OF EQUITY?**

7 **A.** I relied on the same proxy group used by PGE witness Dr. Zepp to estimate PGE’s return
8 on equity.

9 **Q. HOW DOES THIS PROXY GROUP’S INVESTMENT RISK COMPARE TO THE**
10 **INVESTMENT RISK OF PGE?**

11 **A.** The proxy group is shown on Exhibit ICNU-CUB/204. This proxy group has an average
12 senior secured credit rating from S&P of “BBB+,” which is comparable to PGE’s senior
13 secured credit rating from S&P of “A-.” The proxy group’s senior secured credit rating
14 from Moody’s is “A3,” which is identical to PGE’s senior secured credit rating from
15 Moody’s. These bond ratings indicate that my proxy group has comparable total
16 investment risk to PGE.

17 The proxy group had an average common equity ratio of 44.8% (including short-
18 term debt) from AUS and 46.9% (excluding short-term debt) from *Value Line* in 2009.
19 This proxy group’s common equity ratio (excluding short-term debt) is comparable to my
20 proposed common equity ratio for PGE of 47.8%. A comparable common equity ratio
21 demonstrates that PGE’s financial risks are comparable to my proxy group.

22 PGE has a business risk profile score of “Strong” from S&P, which is comparable
23 to many companies included in the proxy group, and solidly within the proxy group range
24 of “Excellent” (lowest risk) to “Satisfactory” (higher risk) ratings. Overall, PGE’s
25 business risk is reasonably comparable to the proxy group.

Discounted Cash Flow Model

Q. PLEASE DESCRIBE THE DCF MODEL.

A. The DCF model posits that a stock price is valued by summing the present value of expected future cash flows discounted at the investor's required rate of return or cost of capital. This model is expressed mathematically as follows:

$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} + \dots + \frac{D_\infty}{(1+K)^\infty} \quad \text{where:} \quad \text{(Equation 1)}$$

P_0 = Current stock price
 D = Dividends in periods 1 - ∞
 K = Investor's required return

This model can be rearranged in order to estimate the discount rate or investor required return, "K." If it is reasonable to assume that earnings and dividends will grow at a constant rate, then Equation 1 can be rearranged as follows:

$$K = D_1/P_0 + G \quad \text{(Equation 2)}$$

K = Investor's required return
 D_1 = Dividend in first year
 P_0 = Current stock price
 G = Expected constant dividend growth rate

Equation 2 is referred to as the annual "constant growth" DCF model.

Q. PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF MODEL.

A. As shown under Equation 2 above, the DCF model requires a current stock price, expected dividend, and expected growth rate in dividends.

Q. WHAT STOCK PRICE AND DIVIDEND HAVE YOU RELIED ON IN YOUR CONSTANT GROWTH DCF MODEL?

A. I relied on the average of the weekly high and low stock prices over a 13-week period ended May 7, 2010. An average stock price is less susceptible to market price variations

1 than a spot price. Therefore, an average stock price is less susceptible to aberrant market
2 price movements, which may not be reflective of the stock's long-term value.

3 A 13-week average stock price is still short enough to contain data that reasonably
4 reflect current market expectations, but is not so short a period as to be susceptible to
5 market price variations that may not be reflective of the security's long-term value. In
6 my judgment, a 13-week average stock price is a reasonable balance between the need to
7 reflect current market expectations and the need to capture sufficient data to smooth out
8 aberrant market movements.

9 I used the most recently paid quarterly dividend, as reported in *The Value Line*
10 *Investment Survey*. This dividend was annualized (multiplied by 4) and adjusted for next
11 year's growth to produce the D_1 factor for use in Equation 2 above.

12 **Q. WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR CONSTANT**
13 **GROWTH DCF MODEL?**

14 **A.** There are several methods one can use in order to estimate the expected growth in
15 dividends. However, for purposes of determining the market required return on common
16 equity, one must attempt to estimate investors' consensus about what the dividend or
17 earnings growth rate will be, and not what an individual investor or analyst may use to
18 form individual investment decisions.

19 Security analysts' growth estimates have been shown to be more accurate
20 predictors of future returns than growth rates derived from historical data because they
21 are more reliable estimates.^{12/} Assuming the market generally makes rational investment
22 decisions, analysts' growth projections are more likely the growth estimates considered

^{12/} See, e.g., David Gordon, Myron Gordon, and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

1 by the market that influence observable stock prices than are growth rates derived from
2 only historical data.

3 For my constant growth DCF analysis, I have relied on a consensus, or mean, of
4 professional security analysts' earnings growth estimates as a proxy for the investor
5 consensus dividend growth rate expectations. I used the average of three sources of
6 analysts' growth rate estimates: Zacks, SNL Financial and Reuters. All consensus
7 analysts' projections used were available on May 12, 2010, as reported online.

8 Each consensus growth rate projection is based on a survey of security analysts.
9 The consensus estimate is a simple arithmetic average, or mean, of surveyed analysts'
10 earnings growth forecasts. A simple average of the growth forecasts gives equal weight
11 to all surveyed analysts' projections. It is problematic as to whether any particular
12 analyst's forecast is more representative of general market expectations. Therefore, a
13 simple average, or arithmetic mean, of analyst forecasts is a good proxy for market
14 consensus expectations.

15 **Q. WHAT IS THE GROWTH RATE YOU USED IN YOUR CONSTANT GROWTH**
16 **DCF MODEL?**

17 **A.** The growth rates I used in my DCF analysis are shown in Exhibit ICNU-CUB/205. The
18 average and median growth rates for my proxy group are both 5.77%.

19 **Q. WHAT ARE THE RESULTS OF YOUR CONSTANT GROWTH DCF MODEL?**

20 **A.** As shown in Exhibit ICNU-CUB/206, the average and median constant growth DCF
21 returns for the proxy group are 10.75% and 10.80%, respectively.

22 **Q. DO YOU HAVE ANY COMMENTS CONCERNING THE RESULTS OF YOUR**
23 **CONSTANT GROWTH DCF ANALYSIS?**

24 **A.** Yes. The constant growth DCF return is not reasonable and represents an inflated return
25 for PGE at this time. The constant growth DCF result is unreliable and inflated because

1 it is based on a three- to five-year growth rate of 5.77%. This three- to five-year growth
2 rate, while reasonable for the next five years, is not a reasonable estimate of long-term
3 sustainable growth as required by the constant growth DCF model.

4 **Q. WHY DO YOU BELIEVE THE PROXY GROUP'S THREE- TO FIVE-YEAR**
5 **GROWTH RATE IS IN EXCESS OF A LONG-TERM SUSTAINABLE**
6 **GROWTH?**

7 **A.** The three- to five-year growth rate of the proxy group exceeds the growth rate of the
8 overall U.S. economy. As developed below, the consensus of published economists
9 projects that the U.S. Gross Domestic Product ("GDP") will grow at a rate of no more
10 than 5.1% and 4.8% over the next 5 and 10 years, respectively. A company cannot grow,
11 indefinitely, at a faster rate than the market in which it sells its products. The U.S.
12 economy, or GDP, growth projection represents a ceiling, or high-end, sustainable
13 growth rate for a utility over an indefinite period of time.

14 **Q. WHY IS THE GDP GROWTH PROJECTION CONSIDERED A CEILING**
15 **GROWTH RATE FOR A UTILITY?**

16 **A.** Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the
17 overall economy. Utilities' earnings/dividend growth is created by increased utility
18 investment or rate base. Utility plant investment, in turn, is driven by service area
19 economic growth and demand for utility service. In other words, utilities invest in plant
20 to meet sales demand growth, and sales growth in turn is tied to economic growth in their
21 service areas. The Energy Information Administration ("EIA") has observed that utility
22 sales growth is less than U.S. GDP growth, as shown in Exhibit ICNU-CUB/207. Utility
23 sales growth has lagged behind GDP growth. Hence, nominal GDP growth is a very
24 conservative, albeit overstated, proxy for electric utility sales growth, rate base growth,

1 and earnings growth. Therefore, GDP growth is a reasonable proxy for the highest
2 sustainable long-term growth rate of a utility.

3 **Q. IS THERE RESEARCH THAT SUPPORTS YOUR POSITION THAT, OVER**
4 **THE LONG TERM, A COMPANY'S EARNINGS AND DIVIDENDS CANNOT**
5 **GROW AT A RATE GREATER THAN THE GROWTH OF THE U.S. GDP?**

6 **A.** Yes. This concept is supported in both published analyst literature and academic work.
7 Specifically, in a textbook entitled "Fundamentals of Financial Management," published
8 by Eugene Brigham and Joel F. Houston, the authors state as follows:

9 The constant growth model is most appropriate for mature companies with
10 a stable history of growth and stable future expectations. Expected growth
11 rates vary somewhat among companies, but dividends for mature firms are
12 often expected to grow in the future at about the same rate as nominal
13 gross domestic product (real GDP plus inflation).^{13/}

14 Also, Morningstar's *Stocks, Bonds, Bills and Inflation 2009 Yearbook Valuation*
15 *Edition* tracked dividends of the stock market in comparison to GDP growth over the
16 period 1926 through the end of 2008.^{14/} Based on that study, the authors found that
17 earnings and dividends for the market have historically grown in tandem with the overall
18 economy. It is important to note that the growth of companies included in the overall
19 market will normally be higher than that of utility companies. These non-utility
20 companies achieve a higher level of growth because they retain a larger percentage of
21 their earnings and pay out a much smaller percentage of their earnings as dividends.
22 Retaining higher percentages of total earnings fuels stronger growth for these non-utility
23 companies. Since the market in general grows at the overall GDP growth rate, it is very
24 conservative to assume that utility companies could achieve this same level of sustained

^{13/} "Fundamentals of Financial Management," Eugene F. Brigham and Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298.

^{14/} *Ibbotson SBBI 2009 Valuation Yearbook* (Morningstar, Inc.) at 67.

1 growth without a material reduction in their dividend payout ratios. As such, using the
2 GDP as a maximum sustainable growth rate is a very conservative and high-end estimate
3 for utility companies.

4 **Q. HAVE ANALYSTS RECOGNIZED THAT SHORT-TERM GROWTH**
5 **OUTLOOKS WILL SLOW OVER TIME?**

6 **A.** Yes. *Value Line* recognized that dividend growth will likely slow from short-term
7 growth patterns. *Value Line* stated as follows:

8 Dividends have been increasing at a rapid pace since 2002, reflecting
9 relatively healthy balance sheets throughout the industry. In fact, last year
10 61% of electric utilities raised their dividend, 33% reported no change, 2%
11 reinstated theirs, 2% lowered them, and only 2% are not paying them at
12 all. In any industry these statistics would be viewed as quite favorable.
13 But, 2008 actually marked the slowing of a trend for the electric utility
14 industry, in which the percentage of dividend increases declined. The
15 reversal is attributable to deteriorating economic conditions, elevated
16 capital spending, and higher debt-to-capitalization ratios. Despite this,
17 many utilities are still sporting attractive yields.^{15/}

18 **Q. HOW DO THE PROXY GROUP'S PROJECTED GROWTH RATES COMPARE**
19 **TO HISTORICAL ACTUAL GROWTH AND CONTEMPORARY PROJECTED**
20 **NOMINAL GDP GROWTH AND INFLATION RATES?**

21 **A.** As shown in Exhibit ICNU-CUB/208, the historical growth of the proxy group's
22 dividend (columns 1 and 2) is lower than the historical nominal GDP growth (columns 7
23 and 8). Over the last 5 and 10 years, my proxy group's dividend growth was lower than
24 the actual inflation growth (columns 4 and 5) and well beneath the actual growth of
25 nominal GDP (columns 7 and 8).

26 This historical perspective confirms the robust outlook for earnings growth over
27 the next three to five years and supports my contention that current three- to five-year
28 earnings growth projections are not reasonable estimates of sustainable long-term growth.

^{15/} *The Value Line Investment Survey Ratings & Reports, "Electric Utility (East) Industry," May 29, 2009 at 148 (emphasis added).*

1 **Sustainable Growth DCF**

2 **Q. IS THERE A WAY OF DEVELOPING A DCF ESTIMATE USING A**
3 **SUSTAINABLE LONG-TERM GROWTH RATE?**

4 **A.** Yes. This can be developed using an internal growth rate or sustainable growth for the
5 companies included in the proxy group using *Value Line*'s three- to five-year earnings
6 and dividends projections and estimated earned return on equity. An internal growth rate
7 methodology estimates the sustainable growth rate based on the percentage of the utility's
8 earnings that are retained in the company and reinvested in utility plant and equipment.
9 These reinvested earnings increase the earnings base and will increase the earned return
10 on equity when those additional earnings are put into service, and the company is allowed
11 to earn its authorized return on the additional investment.

12 The internal growth methodology is tied to the percentage of earnings retained in
13 the company and not paid out as dividends. The earnings retention ratio is 1 minus the
14 dividend payout ratio. As the payout ratio declines, the earnings retention ratio increases.
15 An increased earnings retention ratio will fuel stronger growth because the business funds
16 more investments with retained earnings. As shown in Exhibit ICNU-CUB/209, *Value*
17 *Line* projects the proxy group to have a declining dividend payout ratio over the next
18 three to five years. These dividend payout ratios and earnings retention ratios can then be
19 used to develop a sustainable long-term earnings retention growth rate to help gauge
20 whether analysts' current three- to five-year growth rate projections can be sustained over
21 an indefinite period of time.

22 As shown in Exhibit ICNU-CUB/210, Gorman/1, the average and median
23 sustainable growth rates for the proxy group using this internal growth rate model both
24 are 4.98%.

1 Using the proxy group average growth rate of 5.77% and a three- to five-year
2 projected dividend payout ratio of 58.41% would require an earned return on book equity
3 of 13.87%^{16/} to support a long-term sustainable growth rate of 5.64%. In comparison,
4 *Value Line* is projecting a group average return on book equity of 10.71%.^{17/} This
5 information supports my conclusion that current analysts' three- to five-year earnings
6 growth projections are not sustainable and will decline over time.

7 **Q. WHAT IS A CONSTANT GROWTH DCF ESTIMATE USING THIS**
8 **SUSTAINABLE LONG-TERM GROWTH RATE?**

9 **A.** A DCF estimate based on this sustainable growth rate is developed in Exhibit ICNU-
10 CUB/211. As shown there, a sustainable growth DCF analysis produces a group average
11 DCF result of 9.92% and median of 9.54%.

12 The average result is skewed due to a significant outlier – DPL Inc., which
13 produces a return on equity of 20.22%. Excluding DPL Inc., the proxy group's average
14 DCF would be 9.70%. Therefore, I conclude that the median result of 9.54% better
15 represents the central tendency of my proxy group. Hence, I will rely on the median DCF
16 results.

17 The sustainable growth DCF result is based on the dividend and price data used in
18 my constant growth DCF study (using analyst growth rates) and the sustainable growth
19 rate discussed above and developed in Exhibit ICNU-CUB/210.

^{16/} $5.77\% \div (1 - 58.41\%)$.

^{17/} Exhibit ICNU-CUB/210, Gorman/1, Col. 4, Line 32.

Multi-Stage Growth DCF Model

Q. HAVE YOU CONDUCTED ANY OTHER DCF STUDIES?

A. Yes. My first constant growth DCF is based on consensus analysts' growth rate projections, so it is a reasonable reflection of rational investment expectations over the next three to five years. The limitation on the constant growth DCF model is that it cannot reflect a rational expectation that a period of high/low short-term growth can be followed by a change in growth to a rate that is more reflective of long-term sustainable growth. Hence, I performed a multi-stage growth DCF analysis to reflect this outlook of changing growth expectations.

Q. PLEASE DESCRIBE YOUR MULTI-STAGE GROWTH DCF MODEL.

A. The multi-stage growth DCF model reflects the possibility of non-constant growth for a company over time. The multi-stage growth DCF model reflects three growth periods: (1) a short-term growth period, which consists of the first five years; (2) a transition period, which consists of the next five years (6 through 10); and (3) a long-term growth period, starting in year 11 through perpetuity.

For the short-term growth period, I relied on the consensus analysts' growth projections described above in relationship to my constant growth DCF model. For the transition period, the growth rates were reduced or increased by an equal factor, which reflects the difference between the analysts' growth rates and the GDP growth rate. For the long-term growth period, I assumed each company's growth would converge to the maximum sustainable growth rate for a utility company as proxied by the consensus analysts' projected growth for the U.S. GDP of 4.8%.

1 **Q. WHAT DO YOU BELIEVE IS A REASONABLE SUSTAINABLE LONG-TERM**
2 **GROWTH RATE?**

3 **A.** A reasonable growth rate that can be sustained in the long run should be based on
4 consensus analysts' projections. *Blue Chip Financial Forecasts* publishes consensus
5 GDP growth projections twice a year. Based on its latest issue, the consensus
6 economists' published 5- to 10-year GDP growth rate outlook is 5.1% to 4.8%,
7 respectively.^{18/}

8 Therefore, I propose to use the consensus economists' projected 10-year GDP
9 consensus growth rate of 4.8%, as published by *Blue Chip Financial Forecasts*, as an
10 estimate of sustainable long-term growth. This consensus GDP growth forecast
11 represents the most likely views of market participants because it is based on published
12 economist projections.

13 **Q. WHAT STOCK PRICE, DIVIDEND AND GROWTH RATES DID YOU USE IN**
14 **YOUR MULTI-STAGE GROWTH DCF ANALYSIS?**

15 **A.** I relied on the same 13-week stock price and the most recent quarterly dividend payment
16 discussed above. For stage one growth, I used the consensus analysts' growth rate
17 projections discussed above in my constant growth DCF model. The transition period
18 begins in year 6 and ends in year 10. For the long-term sustainable growth rate starting in
19 year 11, I used 4.8%, the consensus economists' 10-year projected nominal GDP growth
20 rate.

21 **Q. WHAT ARE THE RESULTS OF YOUR MULTI-STAGE GROWTH DCF**
22 **MODEL?**

23 **A.** As shown in Exhibit ICNU-CUB/212, the average and median multi-stage growth DCF
24 returns on equity for the proxy group are 10.02% and 10.03%, respectively.

^{18/} *Blue Chip Financial Forecasts*, March 10, 2010 at 15.

1 **Q. PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.**

2 **A.** The results from my DCF analyses are summarized in Table 5:

TABLE 5	
<u>Summary of DCF Results</u>	
<u>Description</u>	<u>Proxy Group</u>
Constant Growth DCF Model (Analysts' Growth)	10.80%
Constant Growth DCF Model (Sustainable Growth)	9.54%
Multi-Stage Growth DCF Model	<u>10.03%</u>
Average DCF Return	10.12%

3 For reasons set forth above, I believe my constant growth DCF model based on
4 analysts' growth is not reasonable because short-term analyst growth rate projections are
5 not reasonable estimates of long-term sustainable growth. Therefore, the DCF model
6 based on analysts' growth rate estimates should not be used on a stand-alone basis. I
7 recommend it be averaged with my other DCF estimates to produce a reasonable DCF
8 point estimate that can be used to derive PGE's return on equity. The constant growth
9 DCF model based on the sustainable growth approach is based on a growth rate that is
10 sustainable in the long term in comparison to GDP growth, but may not reflect analysts'
11 short-term growth outlooks. The multi-stage growth DCF model return reflects the
12 expectation of changing growth rates over time. Even though I have strong concerns
13 about the accuracy of the constant growth DCF at this time, I included all estimates in my
14 DCF return of approximately 10.12%.

1 **Q. IS YOUR DECISION TO INCLUDE AN ALTERNATIVE MULTI-STAGE DCF**
2 **ANALYSIS CONSISTENT WITH OPUC FINDINGS IN PRIOR RATE CASE**
3 **PROCEEDINGS?**

4 **A.** Yes. The OPUC stated:

5 We have previously favored use of the multi-stage DCF analysis over the
6 single-stage DCF formula. In docket UG 132, *In re Northwest Natural*
7 *Gas Company*, we noted that the multi-stage DCF improves on the
8 implicit assumption in the single-stage version that dividends grow
9 indefinitely at the same rate. [footnote omitted] This limitation of the
10 single-stage DCF model is even more significant given the ongoing
11 restructuring of the electric industry. For this reason, and in light of the
12 parties' significant disagreements over the proper application of the
13 single-stage DCF model, we adopt Staff's recommendation to reject the
14 single-stage DCF analysis in favor of PGE's and Staff's multi-stage DCF
15 results. We conclude that the parties' single-stage DCF analyses provide
16 no information not already contained in their complex DCF analyses.
17 Parties are free to use the single-stage version of the DCF method in future
18 dockets, but they will be expected to show that the required industry
19 stability is present.^{19/}

20 As outlined above, I believe the constant growth DCF analysts' growth rate
21 includes a growth rate which is far too high to be a reasonable estimate of long-term
22 sustainable growth. If the growth rate is too high to be a reasonable estimate of long-
23 term sustainable growth, the constant growth DCF model produces a high DCF return
24 estimate. Therefore, I believe this model should be afforded very little, if any, weight in
25 the determination of an appropriate return on equity for PGE. To be conservative, I did
26 give it some weight in the determination of an appropriate return on equity in support of
27 my recommendation in this case.

^{19/} Re PGE, Docket No. UE 115, Order No. 01-777 at 27 (Aug. 31, 2001).

Risk Premium Model

Q. PLEASE DESCRIBE YOUR BOND YIELD PLUS RISK PREMIUM MODEL.

A. This model is based on the principle that investors require a higher return to assume greater risk. Common equity investments have greater risk than bonds because bonds have more security of payment in bankruptcy proceedings than common equity and the coupon payments on bonds represent contractual obligations. In contrast, companies are not required to pay dividends on common equity, or to guarantee returns on common equity investments. Therefore, common equity securities are considered to be more risky than bond securities.

This risk premium model is based on two estimates of an equity risk premium. First, I estimated the difference between the required return on utility common equity investments and Treasury bonds. The difference between the required return on common equity and the bond yield is the risk premium. I estimated the risk premium on an annual basis for each year over the period 1986 through 2009. The common equity required returns were based on regulatory commission-authorized returns for electric utility companies. Authorized returns are typically based on expert witnesses' estimates of the contemporary investor required return.

The second equity risk premium method is based on the difference between regulatory commission-authorized returns on common equity and contemporary "A" rated utility bond yields. This time period was selected because over the period 1986 through 2009, public utility stocks have consistently traded at a premium to book value. This is illustrated in Exhibit ICNU-CUB/213, where the market to book ratio since 1986 for the electric utility industry was consistently above 1.0. Over this time period, regulatory authorized returns were sufficient to support market prices that at least

1 exceeded book value. This is an indication that regulatory authorized returns on common
2 equity supported a utility's ability to issue additional common stock, without diluting
3 existing shares. It further demonstrates that utilities were able to access equity markets
4 without a detrimental impact on current shareholders.

5 Based on this analysis, as shown in Exhibit ICNU-CUB/214, the average
6 indicated equity risk premium over U.S. Treasury bond yields has been 5.16%. Of the 25
7 observations, 19 indicated risk premiums fall in the range of 4.40% to 6.08%. Since the
8 risk premium can vary depending upon market conditions and changing investor risk
9 perceptions, I believe using an estimated range of risk premiums provides the best
10 method to measure the current return on common equity using this methodology.

11 As shown in Exhibit ICNU-CUB/215, the average indicated equity risk premium
12 over contemporary Moody's utility bond yields was 3.71% over the period 1986 through
13 2009. The indicated equity risk premium estimates based on this analysis primarily fall
14 in the range of 3.03% to 4.59% over this time period.

15 **Q. DO YOU BELIEVE THAT THIS RISK PREMIUM IS BASED ON A TIME**
16 **PERIOD THAT IS TOO LONG OR TOO SHORT TO DRAW ACCURATE**
17 **RESULTS CONCERNING CONTEMPORARY MARKET CONDITIONS?**

18 **A.** No. Contemporary market conditions can change dramatically during the period that
19 rates determined in this proceeding will be in effect. Therefore, relying on a relatively
20 long period of time where stock valuations reflect premiums to book value is an
21 indication that the authorized returns on equity and the corresponding equity risk
22 premiums were supportive of investors' return expectations and provided utilities access
23 to the equity markets under reasonable terms and conditions. Further, this time period is
24 long enough to smooth abnormal market movement that might distort equity risk

1 premiums. While market conditions and risk premiums do vary over time, this historical
2 time period is a reasonable period to estimate contemporary risk premiums.

3 The time period I use in this risk premium is a generally accepted period to
4 develop a risk premium study using “expectational” data. Conversely, studies have
5 recommended that use of “actual achieved return data” should be based on very long
6 historical time periods. The studies find that achieved returns over short time periods
7 may not reflect investors’ expected returns due to unexpected and abnormal stock price
8 performance. However, these short-term abnormal actual returns would be smoothed
9 over time and the achieved actual returns over long time periods would approximate
10 investors’ expected returns. Therefore, it is reasonable to assume that averages of annual
11 achieved returns over long time periods will generally converge on the investors’
12 expected returns.

13 My risk premium study is based on expectational data, not actual returns, and,
14 thus, need not encompass very long time periods.

15 **Q. BASED ON HISTORICAL DATA, WHAT RISK PREMIUM HAVE YOU USED**
16 **TO ESTIMATE PGE’S COST OF EQUITY IN THIS PROCEEDING?**

17 **A.** The equity risk premium should reflect the relative market perception of risk in the utility
18 industry today. I have gauged investor perceptions in utility risk today in Exhibit ICNU-
19 CUB/216. On that exhibit, I show the yield spread between utility bonds and Treasury
20 bonds over the last 30 years. As shown in this exhibit, the 2008 utility bond yield spreads
21 over Treasury bonds for “A” rated and “Baa” rated utility bonds are 2.25% and 2.97%,
22 respectively. The utility bond spreads over Treasury bonds for “A” and “Baa” rated
23 utility bonds for 2009 are 1.97% and 2.99%, respectively. These utility bond yield

1 spreads over Treasury bond yields are much higher than the 30-year average spreads of
2 1.61% and 2.00%, respectively.

3 While the yield spreads for 2008 and 2009 reflect unusually large spreads, the
4 market has started to improve and these spreads have started to decline. For example, the
5 first quarter 2010 “A” rated utility bond yield has subsided relative to the end of 2008 and
6 2009, down to around 5.83%. This utility bond yield when compared to the current
7 Treasury bond yield of 4.62%, implies a yield spread of around 1.21% which is lower
8 than the 30-year average spread for “A” utility bonds of 1.61%. The same is true for the
9 “Baa” utility yields and spreads.

10 **Q. HOW DID YOU ESTIMATE PGE’S COST OF COMMON EQUITY WITH THIS**
11 **RISK PREMIUM MODEL?**

12 **A.** I added a current and projected long-term Treasury bond yield to my estimated equity
13 risk premium over Treasury yields. The 13-week average 30-year Treasury bond yield,
14 ending May 7, 2010 was 4.64%, as shown on Exhibit ICNU-CUB/217. *Blue Chip*
15 *Financial Forecasts* projects the 30-year Treasury bond yield to be 5.30%.^{20/} Using the
16 current and projected 30-year bond yield of 4.64% and 5.3%, respectively, and a
17 Treasury bond risk premium of 4.40% to 6.08%, as developed above, produces an
18 estimated common equity return in the range of 9.04% (4.64% + 4.40%) to 11.38%
19 (5.3% + 6.08%), with a midpoint of 10.21%.

20 I next added my equity risk premium over utility bond yields to a current 13-week
21 average yield on “Baa” rated utility bonds for the period ending May 7, 2010 of 6.19%.
22 Exhibit ICNU-CUB/217, Gorman/1. Adding the utility equity risk premium of 3.03% to

^{20/} *Blue Chip Financial Forecasts*, May 1, 2010 at 2.

1 4.59%, as developed above, to a “Baa” rated bond yield of 6.19%, produces a cost of
2 equity in the range of 9.22% to 10.78%, with a midpoint of 10.00%.

3 My risk premium analyses produce a return estimate in the range of 10.00% to
4 10.21%, with a midpoint estimate of 10.11%.

5 **Q. HAS THE OPUC ADOPTED THE USE OF THE RISK PREMIUM ANALYSIS?**

6 **A.** No. The Commission has not relied on a risk premium to determine a fair return on
7 equity.

8 **Q. DID YOU RELY ON YOUR RISK PREMIUM IN THIS CASE?**

9 **A.** No. Although the results of my risk premium are presented, I primarily relied on the risk
10 premium estimate as a reasonableness check on all other return estimates.

11 **Capital Asset Pricing Model (“CAPM”)**

12 **Q. PLEASE DESCRIBE THE CAPM.**

13 **A.** The CAPM method of analysis is based upon the theory that the market required rate of
14 return for a security is equal to the risk-free rate, plus a risk premium associated with the
15 specific security. This relationship between risk and return can be expressed
16 mathematically as follows:

17 $R_i = R_f + B_i \times (R_m - R_f)$ where:

18 R_i = Required return for stock i

19 R_f = Risk-free rate

20 R_m = Expected return for the market portfolio

21 B_i = Beta - Measure of the risk for stock

22 The stock-specific risk term in the above equation is beta. Beta represents the
23 investment risk that cannot be diversified away when the security is held in a diversified
24 portfolio. When stocks are held in a diversified portfolio, firm-specific risks can be
25 eliminated by balancing the portfolio with securities that react in the opposite direction to

1 firm-specific risk factors (e.g., business cycle, competition, product mix, and production
2 limitations).

3 The risks that cannot be eliminated when held in a diversified portfolio are
4 nondiversifiable risks. Nondiversifiable risks are related to the market in general and are
5 referred to as systematic risks. Risks that can be eliminated by diversification are
6 regarded as non-systematic risks. In a broad sense, systematic risks are market risks, and
7 non-systematic risks are business risks. The CAPM theory suggests that the market will
8 not compensate investors for assuming risks that can be diversified away. Therefore, the
9 only risk that investors will be compensated for are systematic or non-diversifiable risks.
10 The beta is a measure of the systematic or non-diversifiable risks.

11 **Q. PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.**

12 **A.** The CAPM requires an estimate of the market risk-free rate, the company's beta, and the
13 market risk premium.

14 **Q. WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-FREE**
15 **RATE?**

16 **A.** As previously noted, *Blue Chip Financial Forecasts'* projected 30-year Treasury bond
17 yield is 5.3%.^{21/} The current 30-year bond yield is 4.62%. I used *Blue Chip Financial*
18 *Forecasts'* projected 30-year Treasury bond yield of 5.3% for my CAPM analysis.

19 **Q. WHY DID YOU USE LONG-TERM TREASURY BOND YIELDS AS AN**
20 **ESTIMATE OF THE RISK-FREE RATE?**

21 **A.** Treasury securities are backed by the full faith and credit of the United States
22 government. Therefore, long-term Treasury bonds are considered to have negligible
23 credit risk. Also, long-term Treasury bonds have an investment horizon similar to that of

^{21/} *Blue Chip Financial Forecasts*, May 1, 2010 at 2.

1 common stock. As a result, investor-anticipated long-run inflation expectations are
2 reflected in both common stock required returns and long-term bond yields. Therefore,
3 the nominal risk-free rate (or expected inflation rate and real risk-free rate) included in a
4 long-term bond yield is a reasonable estimate of the nominal risk-free rate included in
5 common stock returns.

6 Treasury bond yields, however, do include risk premiums related to unanticipated
7 future inflation and interest rates. A Treasury bond yield is not a risk-free rate. Risk
8 premiums related to unanticipated inflation and interest rates are systematic or market
9 risks. Consequently, for companies with betas less than 1.0, using the Treasury bond
10 yield as a proxy for the risk-free rate in the CAPM analysis can produce an overstated
11 estimate of the CAPM return.

12 **Q. WHAT BETA DID YOU USE IN YOUR ANALYSIS?**

13 **A.** As shown in Exhibit ICNU-CUB/218, the proxy group average *Value Line* beta estimate
14 is 0.71. However, I relied on Morningstar's recommended range as described below.

15 **Q. HOW DID YOU DERIVE YOUR MARKET RISK PREMIUM ESTIMATE?**

16 **A.** I derived two market risk premium estimates, a forward-looking estimate and one based
17 on a long-term historical average.

18 The forward-looking estimate was derived by estimating the expected return on
19 the market (as represented by the S&P 500) and subtracting the risk-free rate from this
20 estimate. I estimated the expected return on the S&P 500 by adding an expected inflation
21 rate to the long-term historical arithmetic average real return on the market. The real
22 return on the market represents the achieved return above the rate of inflation.

23 Morningstar's *Stocks, Bonds, Bills and Inflation 2010 Yearbook* publication
24 estimates the historical arithmetic average real market return over the period 1926 to

1 2009 as 8.6%.^{22/} A current consensus analysts' inflation projection, as measured by the
2 Consumer Price Index, is 2.2%.^{23/} Using these estimates, the expected market return is
3 10.99%.^{24/} The market premium then is the difference between the 10.99% expected
4 market return, and my 5.3% risk-free rate estimate, or 5.69%.

5 The historical estimate of the market risk premium was also estimated by
6 Morningstar in *Stocks, Bonds, Bills and Inflation 2010 Yearbook*. Over the period 1926
7 through 2009, Morningstar's study estimated that the arithmetic average of the achieved
8 total return on the S&P 500 was 11.80%,^{25/} and the total return on long-term Treasury
9 bonds was 5.8%.^{26/} The indicated equity risk premium is 6.00% (11.80% - 5.8% =
10 6.00%).

11 **Q. HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE**
12 **COMPARE TO THAT ESTIMATED BY MORNINGSTAR?**

13 **A.** Morningstar estimates a forward-looking market risk premium based on actual achieved
14 data from the historical period of 1926 through year-end 2009. Using this data,
15 Morningstar estimates a market risk premium derived from the total return on large
16 company stocks (S&P 500), less the income return on Treasury bonds. The total return
17 includes capital appreciation, dividend or coupon reinvestment returns, and annual yields
18 received from coupons and/or dividend payments. The income return, in contrast, only
19 reflects the income return received from dividend payments or coupon yields.
20 Morningstar argues that the income return is the only true risk-free rate associated with

^{22/} *Ibbotson SBBI 2010 Classic Yearbook* (Morningstar, Inc.) at 82.

^{23/} *Blue Chip Financial Forecasts*, March 1, 2010 at 2.

^{24/} $\{ [(1 + 0.086) * (1 + 0.022)] - 1 \} * 100$.

^{25/} *Ibbotson SBBI 2010 Classic Yearbook* (Morningstar, Inc.) at 82.

^{26/} Id.

1 the Treasury bond and is the best approximation of a truly risk-free rate. I disagree with
2 this assessment from Morningstar, because it does not reflect a true investment option
3 available to the marketplace and therefore does not produce a legitimate estimate of the
4 expected premium of investing in the stock market versus that of Treasury bonds.
5 Nevertheless, I will use Morningstar's conclusion to show the reasonableness of my
6 market risk premium estimates.

7 Morningstar's analysis indicates that a market risk premium falls somewhere in
8 the range of 5.2% to 6.7%. This range is based on several methodologies. First,
9 Morningstar estimates a market risk premium of 6.7% based on the difference between
10 the total market return on common stocks (S&P 500) less the income return on Treasury
11 bond investments. Second, Morningstar found that if the New York Stock Exchange (the
12 "NYSE") was used as the market index rather than the S&P 500, that the market risk
13 premium would be 6.4% and not 6.7%. Third, if only the two deciles of the largest
14 companies included in the NYSE were considered, the market risk premium would be
15 5.9%.^{27/}

16 Finally, Morningstar found that the 6.7% market risk premium based on the S&P
17 500 was impacted by an abnormal expansion of price-to-earnings ("P/E") ratios relative
18 to earnings and dividend growth during the period 1980 through 2001. Morningstar
19 believes this abnormal P/E expansion is not sustainable. Therefore, Morningstar adjusted
20 this market risk premium estimate to normalize the growth in the P/E ratio to be more in

^{27/} Morningstar observes that the S&P 500 and the NYSE Decile 1-2 are both large capitalization benchmarks. *Ibbotson S&P 2010 Valuation Yearbook* (Morningstar, Inc.) at 55-56.

1 line with the growth in dividends and earnings. Based on this alternative methodology,
2 Morningstar published a long-horizon supply-side market risk premium of 5.2%.^{28/}

3 Thus, based on all of Morningstar's estimates, the market risk premium falls
4 somewhere in the range of 5.2% to 6.7%.

5 **Q. WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?**

6 **A.** As shown in Exhibit ICNU-CUB/219, based on my low-end market risk premium of
7 5.2%, high-end market risk premium of 6.7%, a risk-free rate of 5.3%, and a beta of 0.71,
8 my CAPM analysis produces a return in the range of 8.97% to 10.03%, with a midpoint
9 of 9.50%.

10 **Q. DO YOU HAVE ANY COMMENTS CONCERNING YOUR CAPM ANALYSIS?**

11 **A.** Yes. In Order No. 01-777, the Commission rejected the use of the CAPM when it
12 produced results below PGE's cost of debt. Specifically, the OPUC stated:

13 While the results in this case cast further doubt on the validity of Staff's
14 CAPM methodology, we do not believe that CAPM should be rejected in
15 its entirety. We continue to believe that, in certain cases, CAPM analyses
16 may provide a useful and reliable addition to the DCF results for
17 determining cost of equity.^{29/}

18 The CAPM return estimate of 9.5% in this case is significantly higher than PGE's
19 current marginal cost of debt of approximately 5.8%. Also, I believe the beta factor, the
20 risk-free rates, and the market risk premiums represent normal conditions, and produce a
21 reasonable CAPM return estimate for this proceeding. For all these reasons, the CAPM
22 return estimate should be used by the Commission for determining a fair return for PGE
23 in this proceeding.

^{28/} Id. at 66.

^{29/} Re PGE, Docket No. UE 115, Order No. 01-777 at 32 (Aug. 31, 2001).

1 **Return on Equity Summary**

2 **Q. BASED ON THE RESULTS OF YOUR RATE OF RETURN ON COMMON**
3 **EQUITY ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON**
4 **EQUITY DO YOU RECOMMEND FOR PGE?**

5 **A.** Based on my analyses, I estimate PGE's current market cost of equity to be 9.80%.

<u>Description</u>	<u>Results</u>
DCF	10.12%
Risk Premium	10.11%
CAPM	9.50%

6 My recommended return on equity range is 9.50% to 10.10%. My low end is based on
7 the CAPM return estimates. The high end is based on my DCF analyses. The midpoint
8 of the range is 9.80%. The midpoint 9.80% does not rely upon the risk premium results,
9 consistent with OPUC precedent.

10 **Financial Integrity**

11 **Q. WILL YOUR RECOMMENDED OVERALL RATE OF RETURN SUPPORT AN**
12 **INVESTMENT GRADE BOND RATING FOR PGE?**

13 **A.** Yes. I have reached this conclusion by comparing the key credit rating financial ratios
14 for PGE at my proposed capital structure, and my return on equity to S&P's benchmark
15 financial ratios using S&P's new credit metric ranges.

16 **Q. PLEASE DESCRIBE THE MOST RECENT S&P FINANCIAL RATIO CREDIT**
17 **METRIC METHODOLOGY.**

18 **A.** S&P publishes a matrix of financial ratios that correspond to its assessment of the
19 business risk of the utility company and related bond rating. S&P updated its credit
20 metric guidelines on November 30, 2007, and incorporated utility metric benchmarks

1 with the general corporate rating metrics. However, the effect of integrating the utility
2 metrics with that of general corporate bonds, resulted in a reduction to the transparency in
3 S&P's credit metric guideline for utilities. Most recently, on May 27, 2009, S&P
4 expanded its matrix criteria and included an additional business and financial risk
5 category.

6 Based on S&P's most recent credit matrix, the business risk profile categories are
7 "Excellent," "Strong," Satisfactory," "Fair," Weak," and "Vulnerable." Most electric
8 utilities have a business risk profile of "Excellent" or "Strong." S&P's financial risk
9 profile categories are "Minimal," "Modest," "Intermediate," "Significant," "Aggressive,"
10 and "Highly Leveraged." Most of the electric utilities have a financial risk profile of
11 "Aggressive." PGE has a "Strong" business risk profile and a "Significant" financial risk
12 profile.

13 **Q. PLEASE DESCRIBE S&P'S USE OF THE FINANCIAL BENCHMARK RATIOS**
14 **IN ITS CREDIT RATING REVIEW.**

15 **A.** S&P evaluates a utility's credit rating based on an assessment of its financial and
16 business risks. A combination of financial and business risks equates to the overall
17 assessment of PGE's total credit risk exposure. S&P publishes a matrix of financial
18 ratios that defines the level of financial risk as a function of the level of business risk.

19 S&P publishes ranges for three primary financial ratios that it uses as guidance in
20 its credit review for utility companies. The three primary financial ratio benchmarks it
21 relies on in its credit rating process include: (1) debt to EBITDA, (2) funds from
22 operations ("FFO") to total debt, and (3) total debt to total capital.

1 **Q. HOW DID YOU APPLY S&P'S FINANCIAL RATIOS TO TEST THE**
2 **REASONABLENESS OF YOUR RATE OF RETURN RECOMMENDATIONS?**

3 A I calculated each of S&P's financial ratios based on PGE's cost of service for retail
4 operations. While S&P would normally look at total consolidated financial ratios in its
5 credit review process, my investigation in this proceeding is to judge the reasonableness
6 of my proposed cost of capital for rate-setting in PGE's utility operations. Hence, I am
7 attempting to determine whether the rate of return and cash flow generation opportunity
8 reflected in my proposed utility rates for PGE will support target investment grade bond
9 ratings and financial integrity.

10 **Q. DID YOU INCLUDE ANY OFF-BALANCE SHEET DEBT?**

11 A. Yes. As shown in Exhibit ICNU-CUB/220, Gorman/3, I estimated off-balance sheet debt
12 equivalents of \$242.3 million attributed to PGE's operating leases and purchased power
13 agreements.

14 PGE's total Company off-balance sheet debt and associated imputed interest and
15 amortization expenses are based on an S&P credit report for PGE.

16 **Q. PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS**
17 **FOR PGE.**

18 A. The S&P financial metric calculations for PGE are developed on Exhibit ICNU-
19 CUB/220, Gorman/1.

20 As shown on Exhibit ICNU-CUB/220, Gorman/1, column 1, based on an equity
21 return of 9.70%, PGE will be provided an opportunity to produce a debt to EBITDA ratio
22 of 2.9x. This is slightly below (stronger than) S&P's guideline range of 3.0x to 4.0x for
23 PGE's business risk rating.^{30/} This ratio supports an investment grade credit rating.

^{30/} Standard & Poor's Ratings Direct: "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

1 PGE's retail operations FFO to total debt coverage at a 9.70% equity return would
2 be 26%. This ratio is within S&P's guideline range of 20% to 30% for PGE's business
3 risk rating. The FFO/total debt ratio will support an investment grade bond rating.

4 Finally, PGE's total debt ratio to total capital is 55%. This ratio is generally
5 consistent with an "Aggressive" utility financial ratio which is a normal rating within the
6 utility industry. This total debt ratio will support an investment grade utility bond rating.

7 At my recommended return on equity and my proposed capital structure, the
8 Company's financial credit metrics are supportive of its investment grade utility bond
9 rating.

10 **Q. DO YOU BELIEVE THIS CREDIT METRIC EVALUATION OF PGE AT YOUR**
11 **PROPOSED RETURN ON EQUITY PROVIDES MEANINGFUL**
12 **INFORMATION TO HELP THE COMMISSION DETERMINE THE**
13 **APPROPRIATENESS OF YOUR RECOMMENDATION?**

14 **A.** Yes. While S&P calculates these credit metrics based on total Company operations, and
15 not the retail operations of PGE as I have performed in this study, it still provides
16 meaningful information on the proposed rate of return for PGE in this case and how it
17 will contribute and help support consolidated operations credit standing. Further, while
18 credit rating agencies also consider other financial metrics and qualitative considerations,
19 these metrics are largely driven by the cost of service items of depreciation expense and
20 return on equity. Hence, to the extent these important aspects of cost of service impact
21 PGE's internal cash flows, the relative impact on PGE will be measured by these credit
22 metrics. As illustrated above, an authorized return on equity of 9.70% will support
23 internal cash flows that will be adequate to maintain PGE's current investment grade
24 bond rating.

RESPONSE TO PGE WITNESS DR. ZEPP

1
2 **Q. WHAT RETURN ON COMMON EQUITY IS PGE PROPOSING FOR THIS**
3 **PROCEEDING?**

4 **A.** Dr. Zepp recommended a return on equity in the range of 10.9% to 12.0%, which
5 includes a 20 basis point risk adjustment to reflect his assertion that PGE is riskier than
6 his proxy group. PGE/1200, Zepp/1. PGE is proposing to set rates based on a return on
7 equity of 10.5%. PGE/1100, Hager-Valach/2.

8 Dr. Zepp relied on several versions of the DCF model and risk premium studies.
9 He also analyzed the earned and authorized returns on equity to provide support for his
10 recommendation.

11 Based on his studies, Dr. Zepp concluded that PGE's current market required
12 return on equity falls within the range of 10.9% to 12.0%. However, as set forth below,
13 Dr. Zepp has provided many cost estimates that significantly overstate PGE's current cost
14 of equity.

15 An update and revision to Dr. Zepp's DCF study would support a DCF return on
16 equity of 10.3%. This revised Dr. Zepp DCF study is reasonably comparable to my DCF
17 return estimate of 10.1%. Dr. Zepp's presentation, however, lacks a CAPM study which
18 as discussed above supported a return on equity of 9.5% for PGE. Hence, using
19 Dr. Zepp's revised and updated DCF return estimate of 10.3%, with a current CAPM
20 return estimate for PGE of 9.5%, would support a return on equity of 9.9%. This is very
21 close to my market-derived return on equity of 9.8%.

1 **Q. PLEASE SUMMARIZE DR. ZEPP’S RETURN ON EQUITY RESULTS.**

2 **A.** Dr. Zepp’s results are summarized in Table 7 below.

3

TABLE 7		
<u>Summary of Dr. Zepp’s ROE Estimate</u>		
<u>Description</u>	<u>Zepp Results¹</u> (1)	<u>Adjusted Zepp Results²</u> (2)
<u>DCF Analysis</u>		
Constant Growth Model(Exhibit 1207)	11.5%	10.9%
FERC Multi-Period Method (Exhibit 1209)	11.5%	10.3%
Alternative Multi-Stage Model (Exhibit 1210)	<u>11.2%</u>	<u>9.6%</u>
Average	11.4%	10.3%
<u>Risk Premium Analysis</u>		
Earned Return Risk Premium (Exhibit 1212)	11.1%	Reject
Holding Period Risk Premium (Exhibit 1213)	10.8%	Reject
Authorized Return Risk Premium (Exhibit 1214)	<u>10.9%</u>	<u>Reject</u>
Risk Premium Estimate	10.9%	10.0%
ROE Range	10.7% - 11.8%	
Recommended Range ³	10.9% - 12.0%	
Sources and Note:		
¹ PGE/1200, Zepp/1, excluding 20 basis points risk adjustment.		
² Exhibit ICNU-CUB/221.		
³ Includes a 20 basis point risk adder.		

4 **Q. PLEASE DESCRIBE THE COMPANY’S DISCOUNTED CASH FLOW**
5 **ANALYSIS.**

6 **A.** Dr. Zepp performed three versions of the DCF model. First, he used a constant growth
7 quarterly DCF model. This DCF analysis used analysts’ growth rate projections from
8 Zacks, Yahoo! Finance, Reuters and *Value Line* as shown on PGE Exhibit 1207.

9 The second DCF model was based on Federal Energy Regulatory Commission
10 (“FERC”) methodology. FERC methodology develops a composite growth rate by
11 applying a two-thirds weight to the analysts’ growth rate, and a one-third weight to the
12 GDP growth rate. PGE/1200, Zepp/24-26; Exhibit 1209.

1 Finally, Dr. Zepp developed a multi-stage DCF model using the analysts' growth
2 projections for the first stage, a second transitional growth stage that lasted 10 years,
3 followed by a long-term sustainable growth stage, starting in Year 16. The third stage
4 sustainable growth rate was based on a GDP growth of 5.8%. PGE/1200, Zepp/27; PGE
5 Exhibit 1210.

6 **Q. DO YOU HAVE ANY CONCERNS WITH DR. ZEPP'S CONSTANT GROWTH**
7 **DCF MODEL?**

8 **A.** Yes. I have two concerns with Dr. Zepp's constant growth DCF analyses. First, similar
9 to my constant growth DCF model, Dr. Zepp's proxy group's three- to five-year analysts'
10 growth rate estimate is too high to be a reasonable estimate of long-term sustainable
11 growth. Dr. Zepp's average analysts' growth rate for the proxy group is 6.4%, which is
12 significantly higher than the GDP growth forecast. This growth rate is far too high to be
13 a reasonable estimate of long-term sustainable growth as required by the constant growth
14 model. By use of a growth rate that is too high to be a reasonable estimate of long-term
15 sustainable growth, this constant growth DCF model is inflated and not reliable.

16 Second, Dr. Zepp applied the quarterly version of the constant growth DCF
17 model. The quarterly DCF model unreasonably overstates the utility cost of equity.

18 **Q. DO YOU HAVE ANY CONCERNS WITH DR. ZEPP'S PROPOSED FERC DCF**
19 **METHODOLOGY?**

20 **A.** Yes. I have primarily two concerns with this FERC-based DCF study. First, he
21 arbitrarily applies two-thirds weight to the short-term growth rate forecast, and only
22 one-third weight to the long-term sustainable growth rate. Second, his use of a GDP
23 growth rate of 5.8% substantially overstates the consensus economists' projected long-
24 term GDP growth forecast. As noted above, consensus economists are projecting a long-

1 term GDP growth rate of only 4.8%. Dr. Zepp's proposed 5.8% GDP forecast is
2 substantially higher than the consensus growth rate outlook.

3 **Q. DO YOU HAVE ANY CONCERNS WITH DR. ZEPP'S PROPOSED**
4 **MULTI-STAGE GROWTH DCF RETURN ESTIMATE?**

5 **A.** Yes. My primary concern with Dr. Zepp's multi-stage growth DCF estimate is use of an
6 arbitrarily high GDP growth forecast. As stated just previously, consensus economists'
7 projected GDP growth rate is 4.8%, which is materially below Dr. Zepp's GDP growth
8 rate forecast of 5.8%. By overstating long-term sustainable GDP growth outlooks
9 expected by investors, he is overstating the return requirements demanded by investors in
10 today's market.

11 **Q. CONCERNING DR. ZEPP'S CONSTANT GROWTH DCF STUDY, WHY DO**
12 **YOU BELIEVE DR. ZEPP'S ANALYSTS' PROJECTED GROWTH RATE IS**
13 **NOT SUSTAINABLE IN THE LONG-RUN?**

14 **A.** As discussed in regards to my constant growth DCF analysis, the DCF model requires a
15 growth rate that can be sustained in the long run, and the GDP growth rate is considered a
16 proxy for a long-run sustainable growth rate. Dr. Zepp's average analysts' growth
17 projection of 6.4% can be achieved over the next three to five years; however, it is not
18 reasonable to expect the utility industry to continue to grow at a rate that exceeds the
19 growth rate of the U.S. economy indefinitely. Therefore, Dr. Zepp's constant growth
20 DCF model produces unreliable results that should not be considered on a stand-alone
21 basis because the growth rate is too high to be sustainable indefinitely.

22 **Q. CONCERNING DR. ZEPP'S CONSTANT GROWTH DCF STUDY, WHY DO**
23 **YOU BELIEVE THAT APPLYING THE QUARTERLY COMPOUNDING**
24 **VERSION OF THE DCF IS INAPPROPRIATE IN ESTIMATING PGE'S COST**
25 **OF EQUITY?**

26 **A.** The quarterly compounded DCF return estimate will allow shareholders to earn the
27 dividend reinvestment return twice: (1) through the higher authorized return on equity,

1 and (2) through the actual receipt of dividends and the reinvestment of those dividends
2 throughout the year. This double counting of the dividend reinvestment return is not
3 reasonable, and will unjustly inflate PGE's rates.

4 **Q. PLEASE EXPLAIN WHY THE QUARTERLY COMPOUNDING RETURN**
5 **SHOULD NOT BE INCLUDED IN PGE'S AUTHORIZED RETURN ON**
6 **EQUITY.**

7 **A.** Simply put, the quarterly compounding component of the return is not a cost to the
8 utility. Only the utility's cost of common equity capital should be included in the
9 authorized return on equity.

10 This issue involves whether or not the DCF return estimate should include the
11 expectations by investors that they will receive cash flows within the year that can be
12 reinvested in other investments of comparable risk, and thus the cash flows will produce
13 compounded returns throughout the year. The relevant issue for setting rates is whether
14 or not that reinvestment return is a cost to the utility. It is not!

15 The reinvestment return is not a cost to the utility and therefore should not be
16 included in the authorized return on equity. While it is reasonable for investors to expect
17 to have the opportunity to earn the compounded return produced by cash flows received
18 within the year, the compound return is not paid to investors by the utility.

19 **Q. CAN YOU PROVIDE AN EXAMPLE OF WHY THE COMPOUNDING RETURN**
20 **ESTIMATE IS NOT A COST TO THE UTILITY?**

21 **A.** Yes. I will provide two examples to help illustrate this point. First, consider the cost to
22 the utility of an outstanding utility bond. Most utility bonds pay a coupon every six
23 months. The utility annual cost paid to the bond investor is the sum of the two
24 semi-annual coupon payments. A bond investor expects to receive the semi-annual
25 coupon payments from the utility, but also has an opportunity to reinvest the first coupon

1 payment for the remaining six months of the year to enhance his end-of-year return. This
2 compound return component is, however, not a cost to the utility because the utility does
3 not pay the extra return.

4 For example, assume PGE has an outstanding bond with a face value of \$1,000, at
5 an interest rate of 6%, which is paid in two semi-annual \$30 coupon payments. PGE's
6 cost of this bond is 6%. This 6% cost to PGE is based on a \$30 coupon payment paid in
7 month 6 and month 12 for an annual payment of \$60 relative to the \$1,000 face value of
8 the bond. However, the bond investor would have an annual expected return on this bond
9 of 6.1%. This annual expected return would be realized by receiving the first \$30
10 semi-annual coupon payment from PGE and reinvesting it for the remaining six months
11 of the year. This would produce \$0.89 of semi-annual compounding return
12 ($\$30 \times [(1.06)^{\frac{1}{2}} - 1]$). Hence, the bond investor would receive \$60 from PGE, and \$0.89
13 from investing the first coupon for a total annual return of 6.09%, or 6.1%.

14 Importantly, if PGE were to recover a 6.1% cost of this bond in its cost of service,
15 and paid that return out to the bond investor, then the bond investor would receive \$60.89
16 from PGE, rather than the \$60.00 actual cost, but the bond investor could still reinvest the
17 semi-annual coupon, now \$30.89 for the remaining six months of the year. This would
18 provide the investor with the reinvestment return twice, once from utility ratepayers, and
19 a second time after the semi-annual coupon payment was paid and reinvested.

20 Reflecting this compounding assumption in the authorized return on equity
21 therefore will double count the reinvestment return opportunity.

1 **Q. DOES THIS EXAMPLE ALSO APPLY TO UTILITY STOCK INVESTMENTS?**

2 **A.** Yes. Assume now that an investor purchased PGE stock for \$100, and expects to receive
3 four quarterly dividends of \$1.50, or \$6.00 per year. The expected cost to the utility of
4 this dividend payment over the year would be \$6.00, or 6.0%. However, the expected
5 effective yield of the dividend to investors would be 6.13%, because the quarterly
6 dividends could be reinvested for the remaining term of the year. Hence, the expected
7 end-of-year value of those four \$1.50 quarterly dividend payments to the investor would
8 be \$6.13.^{31/} Again, the utility pays \$6.00 of annual dividends. The \$0.13 is not paid to
9 investors from the utility, but is rather earned in the other investments that earn the same
10 return, which the dividends were invested in throughout the year.

11 Importantly, the reinvestment return of the dividends is not paid by the utility, and
12 therefore is not part of the utility's cost of capital. Again, if this dividend reinvestment
13 return is included in the utility's authorized return on equity, then investors will receive
14 the dividend reinvestment return twice, once through the authorized return on equity, and
15 a second time when dividends are actually received by investors and reinvested.

**Q. WHY IS THE GDP GROWTH RATE OF 5.8% USED BY DR. ZEPP IN HIS
FERC AND MULTI-STAGE GROWTH DCF UNREASONABLE?**

16 **A.** Dr. Zepp developed his GDP estimate of 5.8% by averaging his historical (6.6%) and
17 forecasted (5.1%) GDP growth estimates. The historical estimate of 6.6% was derived by
18 subtracting the difference between past (3.1% as reported by Morningstar in its 2009
19 Valuation Yearbook) and future (3.0% as reported by *Value Line* on November 27, 2009)
20 inflation from the historical nominal GDP of 6.7% for the period 1929-2008. PGE/1200,

^{31/} $1.5 \times (1.06)^{.75} + 1.5 \times (1.06)^{.5} + 1.5 \times (1.06)^{.25} + 1.5 = \$6.13.$

1 Zepp/25. The forecasted GDP estimate of 5.1% was derived from *Value Line* projected
2 real GDP of 3.3% and GDP deflator of 1.7% for 2013. PGE/1200, Zepp/26.

3 Dr. Zepp's GDP growth estimate of 5.8% significantly overstates the consensus
4 analysts' GDP growth forecast for the next 10 years of 4.8% as published by the *Blue*
5 *Chip Financial Forecasts*. Dr. Zepp's GDP estimate reflects the historical GDP growth,
6 which is not necessarily a good benchmark to determine analysts' expectations. Further,
7 as Dr. Zepp correctly observes one should use the best available growth estimates, which
8 are the consensus analysts' projections. PGE/1200, Zepp/23. Using consensus analysts'
9 growth projections most accurately reflects the current market environment instead of
10 relying on an estimate provided by a single analyst such as myself or Dr. Zepp.

11 **Q. DO YOU HAVE ANY ADDITIONAL COMMENTS CONCERNING DR. ZEPP'S**
12 **DCF ANALYSES?**

13 **A.** Yes. Dr. Zepp's DCF estimates are the product of significant outliers. For example, the
14 maximum growth rate for Empire District Electric is 34%, which not only significantly
15 exceeds the long-term sustainable growth rate of 4.8%, but also Dr. Zepp's own average
16 growth rate of 6.4% and his excessive GDP forecast of 5.8%. Therefore, a better
17 estimate of the proxy group central tendency is the median return estimates.

18 **Q. HOW WOULD DR. ZEPP'S RESULTS CHANGE IF YOU CORRECT THE**
19 **FLAWS IN DR. ZEPP'S DCF STUDIES DISCUSSED ABOVE?**

20 **A.** I revised Dr. Zepp's DCF studies for the following:

- 21 1. I reflected a current dividend yield and growth rate estimates,
- 22 2. I removed the quarterly compounding adjustment, and
- 23 3. I used the consensus economists' GDP growth rate projection of 4.8%.

24 With these adjustments, as developed in Table 7 above, excluding the
25 unreasonable constant growth estimate, Dr. Zepp's DCF analyses will produce a return in

1 the range of 9.6% to 10.3%. Exhibit ICNU-CUB/221. I continue to reject the constant
2 growth DCF estimate as a stand-alone estimate.

3 **Q. PLEASE DESCRIBE THE COMPANY'S RISK PREMIUM ANALYSIS.**

4 **A.** The Company developed three versions of the risk premium analysis. The first risk
5 premium analysis is based on a model Dr. Zepp asserts was derived by the Department of
6 Ratepayers Advocates of the California PUC (Application 065-02-014). I will refer to
7 this model as the "Earned Return" Risk Premium Study. Using this methodology, Dr.
8 Zepp estimated an equity risk premium in the range of 3.78% to 4.18%.

9 Second, Dr. Zepp estimated a market risk premium based on the difference
10 between the earned returns of 12 utility companies adopted in UE 180 and the corporate
11 "Baa" bond yields over the period 1999-2008. I refer to this study as the "Holding
12 Period" Risk Premium Study. This methodology produced an equity risk premium of
13 3.6%. Dr. Zepp estimated the actual total return stock investments over corporate utility
14 bonds to be 3.2%. He then increased this to 3.6% by including 50% of the difference in
15 change in yield on historical corporate "Baa" bonds and his projected corporate "Baa"
16 bonds. In effect, Dr. Zepp's adjustments to this holding period equity risk premium
17 reflects a 50% increase in the return on equity based on the decrease in nominal interest
18 rates.

19 Finally, based on a comparison of authorized returns on equity relative to
20 contemporary utility "Baa" corporate bond yields, his methodology and a projected
21 "Baa" corporate bond yield of 7.14%, Dr. Zepp estimated an equity risk premium of
22 3.72%. I refer to this as the "Authorized Return" Risk Premium Study.

1 Using these methodologies and a projected “Baa” corporate bond yield of 7.14%,
2 Dr. Zepp estimated a return on equity for PGE of 10.7% to 11.8%, as shown above in my
3 Table 7.

4 Dr. Zepp then added a 20 basis points risk adjustment to this range to produce a
5 proposed range of 10.9% to 12.0%.

6 **Q. IS IT REASONABLE TO USE ONLY FORECASTED INTEREST RATES IN A**
7 **RISK PREMIUM STUDY?**

8 **A.** No. Dr. Zepp’s risk premium studies were based on his projected “Baa” corporate bond
9 yield of 7.14%. The current “Baa” corporate bond yield is 6.29%.

10 The accuracy of a projected bond yield is highly problematic. Therefore, a risk
11 premium should not be based on only forecasted interest rates.

12 **Q. PLEASE OUTLINE THE ISSUES YOU HAVE WITH DR. ZEPP’S RISK**
13 **PREMIUM ANALYSIS.**

14 **A.** I have three major additional issues with Dr. Zepp’s risk premium analysis.

15 First, Dr. Zepp’s risk premium analysis based on historical earned return, over
16 the period 1999-2008, is flawed and it does not reflect investors’ required rate of return.

17 Second, his market derived (second) risk premium analysis is not reasonable
18 because it estimates the historical equity risk premium based on the income return of
19 corporate bonds relative to the total return of the Moody’s electric utility index.

20 Finally, Dr. Zepp’s third risk premium analysis is based on the simplistic premise
21 that interest rates are inversely related to the equity risk premiums, which is flawed and
22 should be rejected.

1 **Q. WHY DO YOU BELIEVE THAT THE ACCURACY OF FORECASTED**
2 **INTEREST RATES IS HIGHLY PROBLEMATIC?**

3 **A.** This is clearly evident by a review of projected changes to interest rates made over the
4 last several years, in comparison to how accurate these projections turned out to be. This
5 analysis clearly illustrates that observable interest rates today are as accurate as are
6 economists' consensus projections of future interest rates.

7 An analysis supporting this conclusion is illustrated in Exhibit ICNU-CUB/222.
8 On this exhibit, under Columns 1 and 2, I show the actual market yield at the time a
9 projection is made for Treasury bond yields two years in the future. In Column 1, I show
10 the actual Treasury yield and, in Column 2, I show the projected yield two years out.

11 As shown in Columns 1 and 2, over the last several years, Treasury yields were
12 projected to increase relative to the actual Treasury yields at the time of the projection.
13 In Column 4, I show what the Treasury yield actually turned out to be two years after the
14 forecast. Under Column 5, I show the actual yield change at the time of the projections
15 relative to the projected yield change.

16 As shown in this exhibit, over the last several years, economists have been
17 consistently projecting increases to interest rates. However, as demonstrated under
18 Column 5, those yield projections have turned out to be overstated in virtually every case.
19 Indeed, actual Treasury yields have decreased or remained flat over the last five years,
20 rather than increase as the economists' projections indicated.

21 This review of the experience with projected interest rates clearly illustrates that
22 interest rate projection accuracy is highly problematic. Indeed, current observable
23 interest rates are just as likely a reasonable projection of future interest rates as are
24 economists' projections.

1 **Q. WHY DO YOU BELIEVE THAT DR. ZEPP'S "EARNED RETURN" RISK**
2 **PREMIUM ANALYSIS IS FLAWED?**

3 **A.** Dr. Zepp's earned return risk premium analysis is based on actual historical accounting
4 returns over the period 1999-2008. Accounting returns do not reflect investors' required
5 investment returns. This methodology is not market-based. The market return on the
6 equity for regulated utilities is determined by market competitive forces. In contrast, the
7 earned accounting returns used here by Dr. Zepp are book returns which reflect
8 accounting measures. Therefore, using this methodology will not accurately measure the
9 market required investment returns and is, therefore, flawed and it should be rejected.

10 **Q. DO YOU BELIEVE THAT DR. ZEPP'S HOLDING PERIOD EQUITY RISK**
11 **PREMIUM IS REASONABLE?**

12 **A.** No. Dr. Zepp's holding period equity risk premium of 3.2%, subsequently adjusted to
13 3.6%, is unreliable. It was inappropriate for Dr. Zepp to measure a total return on utility
14 stock investments while measuring only the current income return for corporate bonds.
15 The market forces that drove annual capital gains and losses for stock investments, would
16 also drive changes in capital gains and losses for bond investments. Hence, he did not
17 accurately estimate the difference in achieved returns for stock investments versus
18 corporate bond investments over the historical period. Therefore, the risk premium
19 measurement is flawed and unreliable.

20 Second, his proposal to increase the historical measured equity risk premium by
21 50% of the difference of the change in interest rate is also unreasonable. As set forth
22 below, a simple inverse relationship between interest rates and equity risk premium is not
23 a reasonable basis in itself for adjusting an equity risk premium. Rather, changes in
24 equity risk premium should reflect changes in investment risk.

1 **Q. DO YOU HAVE ANY COMMENTS CONCERNING DR. ZEPP'S PROPOSED**
2 **AUTHORIZED RETURN EQUITY RISK PREMIUM STUDY?**

3 **A.** Yes. Dr. Zepp's authorized return on equity study assumes there is a direct inverse
4 relationship between interest rates and equity risk premiums. This methodology does not
5 capture the likelihood that Commission authorized returns on equity are simply reduced
6 slower than declines in the market utility bond yields. As regulatory commissions act
7 conservatively, it is reasonable to expect that they wouldn't reduce the authorized return
8 on equity until there is a clear trend or sustained level of lower capital market costs. I
9 believe that is precisely what has happened in the marketplace over the last 10 to 15
10 years. Therefore, his simple regression analysis of a comparison of authorized returns on
11 equity to utility bond yields gives a false impression of a strong statistical correlation
12 between decreases in interest rates and increases in equity risk premiums.

13 **Q. WHY IS DR. ZEPP'S USE OF A SIMPLE INVERSE RELATIONSHIP**
14 **BETWEEN INTEREST RATES AND EQUITY RISK PREMIUMS NOT**
15 **REASONABLE?**

16 **A.** Dr. Zepp's belief that there is a simplistic inverse relationship between equity risk
17 premiums and interest rates is not supported by academic research. While academic
18 studies have shown that, in the past, there has been an inverse relationship with these
19 variables, researchers have found that the relationship changes over time and is
20 influenced by changes in perception of the risk of bond investments relative to equity
21 investments, and not simply changes to interest rates.^{32/}

22 In the 1980s, equity risk premiums were inversely related to interest rates, but that
23 was likely attributable to the interest rate volatility that existed at that time. Interest rate

^{32/} "The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts," Robert S. Harris and Felicia C. Marston, *Journal of Applied Finance*, Volume 11, No. 1, 2001 and "The Risk Premium Approach to Measuring a Utility's Cost of Equity," Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *Financial Management*, Spring 1985.

1 volatility currently is much lower than it was in the 1980s.^{33/} As such, when interest rates
2 were more volatile, the relative perception of bond investment risk increased relative to
3 the investment risk of equities. This changing investment risk perception caused changes
4 in equity risk premiums.

5 In today's marketplace, interest rate variability is not as extreme as it was during
6 the 1980s. Nevertheless, changes in the perceived risk of bond investments relative to
7 equity investments still drive changes in equity premiums. However, a relative
8 investment risk differential cannot be measured simply by observing nominal interest
9 rates. Changes in nominal interest rates are highly influenced by changes in inflation
10 outlooks, which also change equity return expectations. As such, the relevant factor
11 needed to explain changes in equity risk premiums is the relative changes to the risk of
12 equity versus debt securities investments, not simply changes to interest rates.

13 Importantly, Dr. Zepp's analysis simply ignores investment risk differentials. He
14 bases his adjustment to the equity risk premium exclusively on changes in nominal
15 interest rates. This is a flawed methodology and does not produce accurate or reliable
16 risk premium estimates. His results should be rejected by the Commission.

17 **Q. DO YOU HAVE ANY COMMENTS IN REGARDS TO DR. ZEPP'S CHECK FOR**
18 **REASONABLENESS OF HIS RECOMMENDED RETURN ON EQUITY?**

19 **A.** Yes. Dr. Zepp checks the reasonableness of his estimate based on the earned and
20 authorized returns for his comparable group and he concludes that excluding the book
21 returns below the investment grade debt results in a return on equity of 10.8%.
22 PGE/1200, Zepp/39; PGE Exhibit 1215.

^{33/} *Ibbotson SBBI 2009 Valuation Yearbook* (Morningstar, Inc.) at 95-96.

1 As discussed above in regards to Dr. Zepp's first risk premium analysis, using the
2 actual book returns does not reflect the investors' required return on equity. The
3 accounting earned returns do not measure the current cost of capital necessary to attract
4 capital in the marketplace. An accounting return is not derived from the market valuation
5 of security prices. Consequently, it does not measure investors' return requirements.
6 This is an important distinction, because if the accounting returns on equity are lower
7 than the market required return on equity, then the utility's ability to attract capital could
8 be impaired. Conversely, if the accounting return on equity exceeds the utility's market
9 cost of capital, then utility rates would be adjusted higher than necessary to fairly
10 compensate investors and maintain their ability to attract capital. Hence, the
11 accounting-based methodology is flawed because it does not estimate a fair risk adjusted
12 return on equity that fairly compensates PGE for making utility plant investments.

13 Because of the severe deficiencies in this methodology, Dr. Zepp's test for
14 reasonableness should be disregarded.

15 **Q. DID DR. ZEPP CONCLUDE THAT PGE HAS GREATER RISK THAN OTHER**
16 **ELECTRIC UTILITY COMPANIES?**

17 **A.** Yes. Dr. Zepp concluded that PGE has greater risk than his sample of electric utility
18 companies because of several factors. First, he concludes PGE has significantly more
19 exposure to the wholesale market, due to reliance on wind and hydro generation. Second,
20 he believes PGE is a smaller utility than the average company included in his proxy
21 group. Third, PGE has greater risk due to its larger capital expenditure program. Fourth,
22 PGE has debt imputation of related purchased power contracts, and finally, PGE has a
23 PCAM that does not reduce as much commodity risk for PGE as the electric utilities in

1 his sample. He also points to witnesses Hager and Valach for other unique risks faced by
2 PGE.

3 **Q. DID THE WITNESSES PROVIDE ANY SUPPORT FOR DR. ZEPP'S**
4 **ASSESSMENT THAT PGE HAS GREATER RISK FOR THESE CATEGORIES?**

5 **A.** No. The witnesses did not provide any quantitative assessment of PGE's risk in
6 relationship to other utilities. Therefore, it is simply not possible to conclude, as the
7 witnesses did, that PGE has greater risk. To the contrary, PGE's risk appears to be solely
8 reflective of regulated utility operations, and PGE should get nothing more than an
9 average or typical authorized return on equity in today's low-cost capital environment for
10 several reasons. First, PGE is principally a regulated utility operation. It is not affiliated
11 with higher risk non-regulated entities and, therefore, its risk is based solely on its
12 regulated operations. Second, PGE has access to capital markets, both debt and equity,
13 on its own. Therefore, its access to capital is no longer constrained based on its
14 affiliation with a higher risk parent company. Most importantly, as discussed above, the
15 comparable group used by myself and Dr. Zepp has comparable total investment risk to
16 PGE, based on their credit rating. When credit agencies assign certain credit ratings they
17 take into account all the risks outlined by Dr. Zepp on pages 11-12 of his direct
18 testimony. In fact, in response to ICNU-CUB Question No. 007, Dr. Zepp agreed that the
19 credit agencies consider many company-specific risks including: (1) exposure to the
20 wholesale market, (2) market size, (3) capital expenditure programs,^{34/} (4) PPA debt
21 equivalents, and (5) regulatory mechanisms, including decoupling in their determination
22 of utilities credit ratings. Therefore, asserting that PGE requires a 20 basis point risk
23 adjustment is simply without merit and it should be rejected.

^{34/} ICNU-CUB/223, Gorman/1.

1 **Q. ARE THE RISKS IDENTIFIED BY DR. ZEPP CONSIDERED BY CREDIT**
2 **RATING AGENCIES AND ANALYSTS IN ASSIGNING PGE'S BOND RATING?**

3 **A.** Yes. In its publication *Key Credit Factors: Business and Financial Risks in the*
4 *Investor-Owned Utility Industry*, S&P identifies the following business and financial
5 risks that reflect the credit rating determination of corporate entities. These are outlined
6 below:

7 Business risk:

- 8 • Country and macroeconomic risk
- 9 • Industry factors
- 10 • Competitive position
- 11 • Profitability/peer comparisons

12 Financial risk:

- 13 • Accounting
- 14 • Financial governance and polices/risk tolerance
- 15 • Cash flow adequacy
- 16 • Capital structure/asset protection
- 17 • Liquidity/short-term factors

18 The competitive position outlined above includes utilities' regulatory environment,
19 exposure to commodity risk, capital and financing requirements and company size. The
20 exposure to off-balance sheet debt equivalents such as purchased power agreements and
21 operating leases is discussed in the financial risk review. As shown above, all the risks
22 discussed by Dr. Zepp have already been reflected in the proxy group credit rating.
23 Therefore, selecting a proxy group that has a comparable total investment risk like Dr.
24 Zepp and I have done fully captures all the risks outlined by Dr. Zepp. Hence, Dr.
25 Zepp's 20 basis points risk adjustment should be rejected.

26 **Q. DO YOU HAVE ANY COMMENTS CONCERNING THE CONSTRUCTION**
27 **RISK DISCUSSED BY DR. ZEPP?**

28 **A.** Yes. Dr. Zepp asserts that PGE has greater risk relative to his comparable group because
29 of its significant construction program. However, this assertion is without merit. In fact,

1 in response to ICNU-CUB Question No. 004, Dr. Zepp stated that he did not perform a
2 study that compares PGE's capital expenditure program to the capital expenditure
3 programs of the companies included in his comparable group. In my Exhibit ICNU-
4 CUB/223, I have developed such a study that shows that PGE's expected capital
5 spending to net plant is 8.44%, which is actually lower than the average projected capital
6 spending to net plant of the comparable group of 9.62%. This schedule shows that PGE
7 has lower construction risk than the companies included in Dr. Zepp's comparable group.
8 Therefore, Dr. Zepp's proposal to include a 20 basis points risk adjustment is without
9 merit and should be rejected.

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

11 **A.** Yes, it does.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY)
)
Request for a General Rate Revision.)

ICNU-CUB/201

QUALIFICATIONS OF MICHAEL GORMAN

JUNE 4, 2010

Qualifications of Michael Gorman

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. Michael Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 **Q. PLEASE STATE YOUR OCCUPATION.**

5 A. I am a consultant in the field of public utility regulation and a Managing Principal with
6 Brubaker & Associates, Inc., energy, economic and regulatory consultants.

7 **Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK**
8 **EXPERIENCE.**

9 A. In 1983 I received a Bachelors of Science Degree in Electrical Engineering from Southern
10 Illinois University, and in 1986, I received a Masters Degree in Business Administration
11 with a concentration in Finance from the University of Illinois at Springfield. I have also
12 completed several graduate level economics courses.

13 In August of 1983, I accepted an analyst position with the Illinois Commerce
14 Commission ("ICC"). In this position, I performed a variety of analyses for both formal
15 and informal investigations before the ICC, including: marginal cost of energy, central
16 dispatch, avoided cost of energy, annual system production costs, and working capital. In
17 October of 1986, I was promoted to the position of Senior Analyst. In this position, I
18 assumed the additional responsibilities of technical leader on projects, and my areas of
19 responsibility were expanded to include utility financial modeling and financial analyses.

20 In 1987, I was promoted to Director of the Financial Analysis Department. In this
21 position, I was responsible for all financial analyses conducted by the staff. Among other
22 things, I conducted analyses and sponsored testimony before the ICC on rate of return,

1 financial integrity, financial modeling and related issues. I also supervised the
2 development of all Staff analyses and testimony on these same issues. In addition, I
3 supervised the Staff's review and recommendations to the Commission concerning utility
4 plans to issue debt and equity securities.

5 In August of 1989, I accepted a position with Merrill-Lynch as a financial
6 consultant. After receiving all required securities licenses, I worked with individual
7 investors and small businesses in evaluating and selecting investments suitable to their
8 requirements.

9 In September of 1990, I accepted a position with Drazen-Brubaker & Associates,
10 Inc. In April 1995 the firm of Brubaker & Associates, Inc. ("BAI") was formed. It
11 includes most of the former DBA principals and Staff. Since 1990, I have performed
12 various analyses and sponsored testimony on cost of capital, cost/benefits of utility
13 mergers and acquisitions, utility reorganizations, level of operating expenses and rate base,
14 cost of service studies, and analyses relating industrial jobs and economic development. I
15 also participated in a study used to revise the financial policy for the municipal utility in
16 Kansas City, Kansas.

17 At BAI, I also have extensive experience working with large energy users to
18 distribute and critically evaluate responses to requests for proposals ("RFPs") for electric,
19 steam, and gas energy supply from competitive energy suppliers. These analyses include
20 the evaluation of gas supply and delivery charges, cogeneration and/or combined cycle unit
21 feasibility studies, and the evaluation of third-party asset/supply management agreements.
22 I have also analyzed commodity pricing indices and forward pricing methods for third
23 party supply agreements, and have also conducted regional electric market price forecasts.

1 In addition to our main office in St. Louis, the firm also has branch offices in
2 Phoenix, Arizona and Corpus Christi, Texas.

3 **Q HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?**

4 A Yes. I have sponsored testimony on cost of capital, revenue requirements, cost of service
5 and other issues before the Federal Energy Regulatory Commission and numerous state
6 regulatory commissions including: Arkansas, Arizona, California, Colorado, Delaware,
7 Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Michigan, Missouri,
8 Montana, New Jersey, New Mexico, New York, North Carolina, Oklahoma, Oregon,
9 South Carolina, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia,
10 Wisconsin, Wyoming, and before the provincial regulatory boards in Alberta and Nova
11 Scotia, Canada. I have also sponsored testimony before the Board of Public Utilities in
12 Kansas City, Kansas; presented rate setting position reports to the regulatory board of the
13 municipal utility in Austin, Texas, and Salt River Project, Arizona, on behalf of industrial
14 customers; and negotiated rate disputes for industrial customers of the Municipal Electric
15 Authority of Georgia in the LaGrange, Georgia district.

16 **Q PLEASE DESCRIBE ANY PROFESSIONAL REGISTRATIONS OR**
17 **ORGANIZATIONS TO WHICH YOU BELONG.**

18 A I earned the designation of Chartered Financial Analyst (“CFA”) from the CFA Institute.
19 The CFA charter was awarded after successfully completing three examinations which
20 covered the subject areas of financial accounting, economics, fixed income and equity
21 valuation and professional and ethical conduct. I am a member of the CFA Institute’s
22 Financial Analyst Society.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY)
)
Request for a General Rate Revision.)

ICNU-CUB/202

RATE OF RETURN

JUNE 4, 2010

Portland General Electric Company

Rate of Return (Test Year 2011)

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Weight</u> (2)	<u>Cost</u> (3)	<u>Weighted</u> <u>Cost</u> (4)	<u>Pre-Tax</u> <u>Weighted</u> <u>Cost</u> (5)
1	Long-Term Debt	\$ 1,809,600	52.2%	6.08%	3.17%	3.17%
2	Common Equity	\$ 1,657,814	47.8%	9.70%	4.64%	7.88%
3	Total	\$ 3,467,414	100.0%		7.81%	11.05%
4	Tax Conversion Factor*					1.6989

Sources:

PGE Exhibit 1100, Hager - Valach at 3.

* PGE Exhibit 301, Tooman - Tinker at 3.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
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PORTLAND GENERAL ELECTRIC)
COMPANY)
)
Request for a General Rate Revision.)

ICNU-CUB/203

REDUCTION IMPACT

JUNE 4, 2010

Portland General Electric Company

Revenue Impact

<u>Line</u>	<u>Description</u>	<u>Amount (\$000)</u> (1)
1	Return on Equity from 10.5% to 9.8%	\$19,284
2	Return on Equity from 9.8% to 9.7%	\$2,755
3	Capital Structure Adjustment	<u>\$7,383</u>
4	Recommended Revenue Adjustment	\$29,422
5	25 basis points Regulatory Mechanism Adj.	\$6,586

Sources:

¹ Hager-Valach Direct at 3.

² PGE Exhibit 301, Tooman - Tinker at 3.

³ Exhibit ICNU-CUB/202.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY)
)
Request for a General Rate Revision.)

ICNU-CUB/204

PROXY GROUP

JUNE 4, 2010

Portland General Electric Company

Proxy Group

<u>Line</u>	<u>Company</u>	<u>Bond Ratings¹</u>		<u>Common Equity Ratios</u>		<u>S&P Business Risk Score³</u>
		<u>S&P (1)</u>	<u>Moody's (2)</u>	<u>AUS¹ (3)</u>	<u>Value Line² (4)</u>	
1	Allegheny Energy, Inc.	BBB+	Baa1	41.0%	41.3%	Strong
2	ALLETE, Inc.	A-	A2	57.0%	57.2%	Strong
3	Alliant Energy Corporation	A-	A2	50.0%	51.2%	Excellent
4	Ameren Corporation	BBB	Baa1	51.0%	49.1%	Satisfactory
5	American Electric Power Co.	BBB	Baa2	43.0%	45.4%	Excellent
6	Avista Corporation	BBB+	Baa1	47.0%	49.1%	Excellent
7	Cleco Corporation	BBB	Baa2	46.0%	45.8%	Excellent
8	CMS Energy Corporation	BBB	A3	27.0%	29.0%	Excellent
9	DPL Inc.	A	Aa3	45.0%	46.9%	Excellent
10	DTE Energy Company	A-	A2	44.0%	46.1%	Strong
11	Duke Energy Corporation	BBB+	A2	56.0%	57.6%	Excellent
12	Edison International	A	A1	45.0%	46.5%	Strong
13	Empire District Electric Co.	BBB+	Baa1	45.0%	48.4%	Excellent
14	Entergy Corporation	A-	Baa1	42.0%	43.1%	Strong
15	FPL Group, Inc.	A	Aa2	41.0%	44.3%	Excellent
16	Great Plains Energy Incorporated	BBB+	A3	44.0%	46.2%	Excellent
17	Hawaiian Electric Industries, Inc.	BBB	Baa2	45.0%	50.7%	Strong
18	IDACORP, Inc.	A-	N/R	50.0%	49.8%	Excellent
19	MGE Energy, Inc.	AA-	Aa2	56.0%	61.0%	Excellent
20	Northwestern Corporation	A-	A3	44.0%	N/A	Excellent
21	OGE Energy Corp.	BBB+	Baa1	46.0%	49.4%	Strong
22	PG&E Corporation	BBB+	A3	48.0%	47.4%	Excellent
23	Pinnacle West Capital Corp.	BBB-	Baa2	46.0%	49.6%	Strong
24	Portland General Electric	A-	A3	47.0%	49.7%	Strong
25	Progress Energy Inc.	A-	A1	43.0%	46.0%	Excellent
26	Southern Company	A	A2	44.0%	43.5%	Excellent
27	TECO Energy, Inc.	BBB	Baa1	32.0%	39.4%	Excellent
28	UniSource Energy Corporation	BBB+	N/R	29.0%	29.5%	Strong
29	Westar Energy, Inc.	BBB	Baa1	47.0%	47.4%	Excellent
30	Wisconsin Energy Corporation	A-	A1	42.0%	47.7%	Excellent
31	Xcel Energy Inc.	A-	A2	45.0%	47.7%	Excellent
32	Average	BBB+	A3	44.8%	46.9%	Excellent
33	Portland General Electric Company	A- ⁴	A3 ⁴		47.8% ⁵	Strong

Sources:

¹ *AUS Utility Reports*, April 2010.

² *The Value Line Investment Survey*, February 26, March 26, and May 7, 2010.

³ *S&P RatingsDirect*: "U.S. Regulated Electric Utilities, Strongest to Weakest," March 2, 2010.

⁴ Exhibit ICNU-CUB/201.

⁵ Exhibit ICNU-CUB/202.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY)
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Request for a General Rate Revision.)

ICNU-CUB/205

GROWTH RATES

JUNE 4, 2010

Portland General Electric Company

Growth Rates

Line	Company	Zacks		SNL		Reuters		Average of Growth Rates (7)
		Estimated Growth % ¹	Number of Estimates	Estimated Growth % ²	Number of Estimates	Estimated Growth % ³	Number of Estimates	
		(1)	(2)	(3)	(4)	(5)	(6)	
1	Allegheny Energy, Inc.	18.00%	5	5.70%	4	3.00%	3	8.90%
2	ALLETE, Inc.	3.67%	3	5.00%	3	8.00%	1	5.56%
3	Alliant Energy Corporation	4.00%	3	6.00%	3	9.27%	3	6.42%
4	Ameren Corporation	4.00%	2	N/A	N/A	4.00%	1	4.00%
5	American Electric Power Co.	3.60%	5	4.00%	2	4.67%	3	4.09%
6	Avista Corporation	4.75%	4	5.00%	3	4.50%	2	4.75%
7	Cleco Corporation	9.00%	1	4.00%	1	7.00%	1	6.67%
8	CMS Energy Corporation	6.00%	6	6.00%	4	6.30%	6	6.10%
9	DPL Inc.	5.00%	1	5.90%	2	11.70%	1	7.53%
10	DTE Energy Company	5.00%	1	4.90%	2	4.50%	2	4.80%
11	Duke Energy Corporation	1.00%	4	4.00%	8	2.00%	8	2.33%
12	Edison International	5.00%	2	3.00%	4	3.00%	5	3.67%
13	Empire District Electric Co.	N/A	N/A	N/A	N/A	1.46%	3	1.46%
14	Energy Corporation	5.00%	4	7.30%	5	10.03%	3	7.44%
15	FPL Group, Inc.	6.60%	5	6.30%	6	6.67%	6	6.52%
16	Great Plains Energy Incorporated	9.50%	2	13.00%	2	9.67%	3	10.72%
17	Hawaiian Electric Industries, Inc.	8.63%	2	5.00%	5	7.25%	5	6.96%
18	IDACORP, Inc.	5.00%	2	5.00%	2	4.50%	2	4.83%
19	MGE Energy, Inc.	5.00%	1	N/A	N/A	2.72%	1	3.86%
20	Northwestern Corporation	7.00%	4	7.00%	3	7.00%	2	7.00%
21	OGE Energy Corp.	5.50%	2	5.00%	2	4.50%	2	5.00%
22	PG&E Corporation	7.67%	3	6.60%	5	6.89%	6	7.05%
23	Pinnacle West Capital Corp.	7.00%	3	6.50%	4	5.80%	5	6.43%
24	Portland General Electric	5.80%	5	6.00%	5	5.50%	4	5.77%
25	Progress Energy Inc.	4.00%	3	3.40%	6	3.97%	6	3.79%
26	Southern Company	4.88%	6	5.60%	8	5.01%	8	5.16%
27	TECO Energy, Inc.	6.40%	4	5.50%	6	8.09%	7	6.66%
28	UniSource Energy Corporation	5.00%	2	5.00%	1	N/A	N/A	5.00%
29	Westar Energy, Inc.	5.00%	3	5.50%	4	4.75%	4	5.08%
30	Wisconsin Energy Corporation	9.50%	2	9.50%	4	8.82%	5	9.27%
31	Xcel Energy Inc.	5.70%	5	6.00%	7	6.01%	7	5.90%
32	Average	6.07%	3	5.78%	4	5.89%	4	5.77%
33	Median							5.77%

Sources:

¹ Zacks Elite, <http://www.zackselite.com/>, downloaded on May 12, 2010.

² SNL Interactive, <http://www.snl.com/>, downloaded on May 12, 2010.

³ Reuters, <http://www.reuters.com/>, downloaded on May 12, 2010.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
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PORTLAND GENERAL ELECTRIC)
COMPANY)
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Request for a General Rate Revision.)

ICNU-CUB/206

CONSTANT GROWTH DCF MODEL

JUNE 4, 2010

Portland General Electric Company

Constant Growth DCF Model

<u>Line</u>	<u>Company</u>	<u>13-Week AVG Stock Price¹</u> (1)	<u>Analysts' Growth²</u> (2)	<u>Annualized Dividend³</u> (3)	<u>Adjusted Yield</u> (4)	<u>Constant Growth DCF</u> (5)
1	Allegheny Energy, Inc.	\$22.65	8.90%	\$0.60	2.89%	11.79%
2	ALLETE, Inc.	\$33.88	5.56%	\$1.76	5.48%	11.04%
3	Alliant Energy Corporation	\$33.02	6.42%	\$1.58	5.09%	11.52%
4	Ameren Corporation	\$25.67	4.00%	\$1.54	6.24%	10.24%
5	American Electric Power Co.	\$33.77	4.09%	\$1.64	5.06%	9.15%
6	Avista Corporation	\$20.96	4.75%	\$1.00	5.00%	9.75%
7	Cleco Corporation	\$26.34	6.67%	\$1.00	4.05%	10.72%
8	CMS Energy Corporation	\$15.60	6.10%	\$0.60	4.08%	10.18%
9	DPL Inc.	\$27.23	7.53%	\$1.21	4.79%	12.32%
10	DTE Energy Company	\$45.09	4.80%	\$2.12	4.93%	9.73%
11	Duke Energy Corporation	\$16.39	2.33%	\$0.96	5.99%	8.33%
12	Edison International	\$33.76	3.67%	\$1.26	3.87%	7.54%
13	Empire District Electric Co.	\$18.46	1.46%	\$1.28	7.04%	8.50%
14	Entergy Corporation	\$79.45	7.44%	\$3.00	4.06%	11.50%
15	FPL Group, Inc.	\$48.36	6.52%	\$2.00	4.41%	10.93%
16	Great Plains Energy Incorporated	\$18.46	10.72%	\$0.83	4.99%	15.71%
17	Hawaiian Electric Industries, Inc.	\$21.88	6.96%	\$1.24	6.06%	13.02%
18	IDACORP, Inc.	\$34.43	4.83%	\$1.20	3.65%	8.49%
19	MGE Energy, Inc.	\$35.00	3.86%	\$1.47	4.37%	8.23%
20	Northwestern Corporation	\$26.85	7.00%	\$1.36	5.42%	12.42%
21	OGE Energy Corp.	\$38.36	5.00%	\$1.45	3.97%	8.97%
22	PG&E Corporation	\$42.44	7.05%	\$1.82	4.59%	11.64%
23	Pinnacle West Capital Corp.	\$37.23	6.43%	\$2.10	6.00%	12.44%
24	Portland General Electric	\$19.27	5.77%	\$1.02	5.60%	11.36%
25	Progress Energy Inc.	\$38.97	3.79%	\$2.48	6.60%	10.39%
26	Southern Company	\$32.99	5.16%	\$1.75	5.59%	10.75%
27	TECO Energy, Inc.	\$15.90	6.66%	\$0.80	5.37%	12.03%
28	UniSource Energy Corporation	\$31.63	5.00%	\$1.56	5.18%	10.18%
29	Westar Energy, Inc.	\$22.28	5.08%	\$1.24	5.85%	10.93%
30	Wisconsin Energy Corporation	\$50.03	9.27%	\$1.60	3.49%	12.77%
31	Xcel Energy Inc.	\$21.18	5.90%	\$0.98	4.90%	10.80%
32	Average	\$31.21	5.77%	\$1.43	4.99%	10.75%
33	Median		5.77%			10.80%

Sources:

¹ <http://moneycentral.msn.com>, downloaded on May 13, 2010.

² Exhibit ICNU-CUB/205, Column 7.

³ *The Value Line Investment Survey*, February 26, March 26, and May 7, 2010.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY)
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Request for a General Rate Revision.)

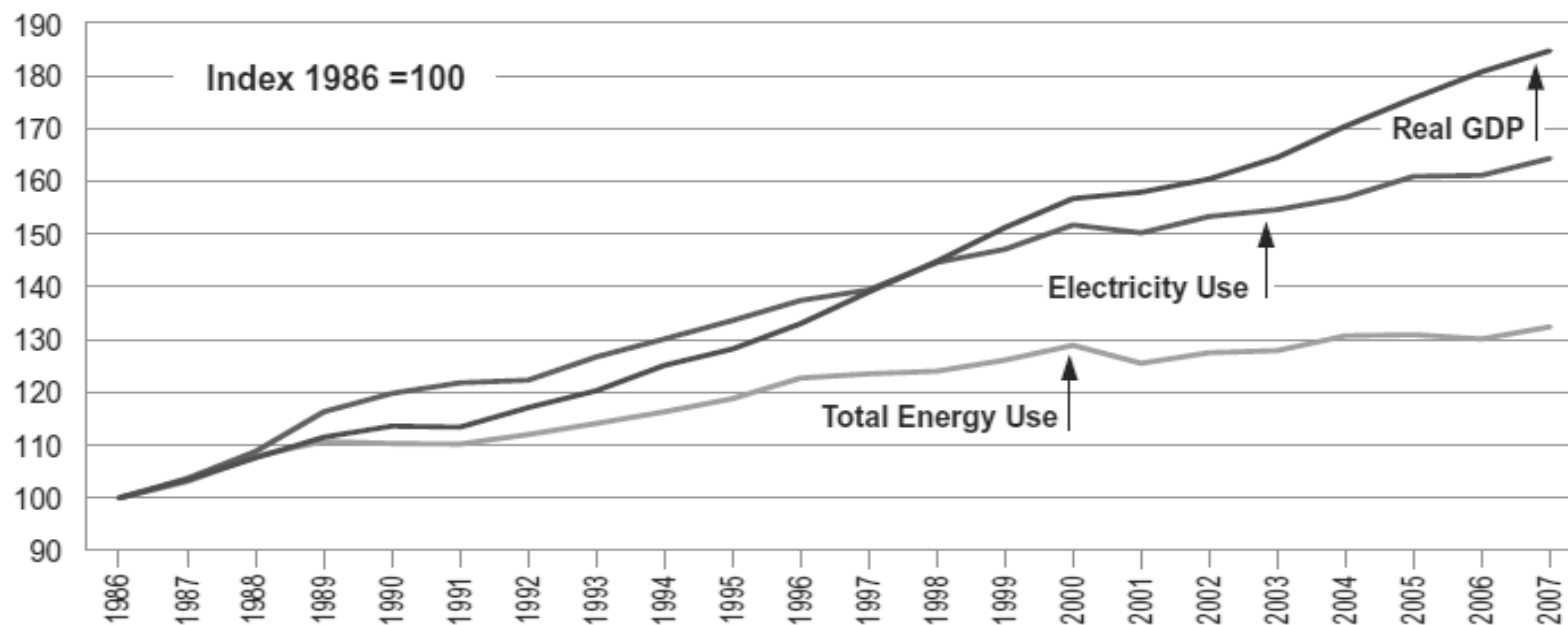
ICNU-CUB/207

ELECTRICITY SALES ARE LINKED TO U.S. ECONOMIC GROWTH

JUNE 4, 2010

Portland General Electric Company

Electricity Sales Are Linked to U.S. Economic Growth



1986 represents the base year. Graph depicts increases or decreases from the base year.

Source: U.S. Department of Energy, Energy Information Administration (EIA).

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**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

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PORTLAND GENERAL ELECTRIC)
COMPANY)
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ICNU-CUB/208

HISTORICAL GROWTH RATES

JUNE 4, 2010

Portland General Electric Company

Historical Growth Rates

Line	Company	Dividend Growth ¹			Inflation (CPI)			Nominal GDP			
		Historical		3-5 Years	Historical ¹		3-5 Years	Historical ¹		Projected ³	
		10 Years	5 Years	Projection	10 Years	5 Years	Projection ²	10 Years	5 Years	5 Years	10 Years
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Allegheny Energy, Inc.	N/A	N/A	25.0%							
2	ALLETE, Inc.	N/A	N/A								
3	Alliant Energy Corporation	-3.5%	0.5%	5.5%							
4	Ameren Corporation	N/A	N/A	-5.5%							
5	American Electric Power Co.	-4.0%	-2.5%	2.5%							
6	Avista Corporation	-3.0%	7.0%	11.0%							
7	Cleco Corporation	1.5%	0.5%	6.5%							
8	CMS Energy Corporation	-12.0%	N/A	17.0%							
9	DPL Inc.	1.5%	3.0%	5.5%							
10	DTE Energy Company	N/A	0.5%	3.0%							
11	Duke Energy Corporation	N/A	N/A	N/A							
12	Edison International	1.5%	N/A	3.5%							
13	Empire District Electric Co.	N/A	N/A	1.0%							
14	Energy Corporation	6.5%	12.0%	4.0%							
15	FPL Group, Inc.	5.5%	7.0%	6.5%							
16	Great Plains Energy Incorporated	-1.5%	-3.5%	-2.5%							
17	Hawaiian Electric Industries, Inc.	N/A	N/A	1.0%							
18	IDACORP, Inc.	-4.5%	-5.5%	2.5%							
19	MGE Energy, Inc.	1.0%	1.0%	0.5%							
20	Northwestern Corporation	N/A	N/A	N/A							
21	OGE Energy Corp.	0.5%	1.0%	2.5%							
22	PG&E Corporation	2.5%	N/A	7.5%							
23	Pinnacle West Capital Corp.	5.5%	4.0%	1.5%							
24	Portland General Electric	N/A	N/A	3.5%							
25	Progress Energy Inc.	2.5%	2.0%	1.0%							
26	Southern Company	2.0%	3.0%	4.0%							
27	TECO Energy, Inc.	-4.0%	-9.0%	3.0%							
28	UniSource Energy Corporation	N/A	11.5%	12.0%							
29	Westar Energy, Inc.	-6.5%	-0.5%	3.5%							
30	Wisconsin Energy Corporation	-3.0%	7.0%	13.0%							
31	Xcel Energy Inc.	-4.0%	1.0%	3.5%							
32	Average	-0.7%	2.0%	4.9%	2.8%	3.0%	2.8%	4.3%	3.7%	5.1%	4.8%

Sources:

¹ *The Value Line Investment Survey*, February 26, March 26, and May 7, 2010.

² *The Value Line Investment Survey*, February 26, 2010.

³ *Blue Chip Economic Indicators*, March 10, 2010 at 15.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
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PORTLAND GENERAL ELECTRIC)
COMPANY)
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Request for a General Rate Revision.)

ICNU-CUB/209

CURRENT AND PROJECTED PAYOUT RATIOS

JUNE 4, 2010

Portland General Electric Company

Current and Projected Payout Ratios

<u>Line</u>	<u>Company</u>	<u>Dividends Per Share</u>		<u>Earnings Per Share</u>		<u>Payout Ratio</u>	
		<u>2009</u> (1)	<u>3-5 Years</u> (2)	<u>2009</u> (3)	<u>3-5 Years</u> (4)	<u>2009</u> (5)	<u>3-5 Years</u> (6)
1	Allegheny Energy, Inc.	\$0.60	\$1.20	\$2.33	\$3.25	25.75%	36.92%
2	ALLETE, Inc.	\$1.76	\$1.80	\$1.89	\$2.50	93.12%	72.00%
3	Alliant Energy Corporation	\$1.50	\$1.92	\$1.89	\$3.60	79.37%	53.33%
4	Ameren Corporation	\$1.54	\$1.70	\$2.78	\$3.00	55.40%	56.67%
5	American Electric Power Co.	\$1.64	\$1.90	\$2.97	\$3.50	55.22%	54.29%
6	Avista Corporation	\$0.81	\$1.30	\$1.58	\$2.00	51.27%	65.00%
7	Cleco Corporation	\$0.90	\$1.40	\$1.76	\$2.50	51.14%	56.00%
8	CMS Energy Corporation	\$0.50	\$0.90	\$0.93	\$1.60	53.76%	56.25%
9	DPL Inc.	\$1.14	\$1.50	\$2.01	\$2.90	56.72%	51.72%
10	DTE Energy Company	\$2.12	\$2.60	\$3.24	\$4.25	65.43%	61.18%
11	Duke Energy Corporation	\$0.94	\$1.10	\$1.13	\$1.50	83.19%	73.33%
12	Edison International	\$1.25	\$1.50	\$3.24	\$3.50	38.58%	42.86%
13	Empire District Electric Co.	\$1.28	\$1.35	\$1.18	\$1.75	108.47%	77.14%
14	Entergy Corporation	\$3.00	\$3.60	\$6.30	\$6.75	47.62%	53.33%
15	FPL Group, Inc.	\$1.89	\$2.40	\$3.97	\$4.75	47.61%	50.53%
16	Great Plains Energy Incorporated	\$0.83	\$1.20	\$1.03	\$1.75	80.58%	68.57%
17	Hawaiian Electric Industries, Inc.	\$1.24	\$1.30	\$0.91	\$2.00	136.26%	65.00%
18	IDACORP, Inc.	\$1.20	\$1.40	\$2.64	\$3.10	45.45%	45.16%
19	MGE Energy, Inc.	\$1.46	\$1.60	\$2.21	\$2.90	66.06%	55.17%
20	Northwestern Corporation	\$1.34	N/A	\$2.02	N/A	66.34%	N/A
21	OGE Energy Corp.	\$1.43	\$1.60	\$2.66	\$3.50	53.76%	45.71%
22	PG&E Corporation	\$1.68	\$2.40	\$3.03	\$4.50	55.45%	53.33%
23	Pinnacle West Capital Corp.	\$2.10	\$2.30	\$2.26	\$3.50	92.92%	65.71%
24	Portland General Electric	\$1.01	\$1.20	\$1.31	\$2.00	77.10%	60.00%
25	Progress Energy Inc.	\$2.48	\$2.58	\$3.03	\$3.55	81.85%	72.68%
26	Southern Company	\$1.73	\$2.10	\$2.32	\$3.00	74.57%	70.00%
27	TECO Energy, Inc.	\$0.80	\$0.95	\$1.00	\$1.60	80.00%	59.38%
28	UniSource Energy Corporation	\$1.16	\$2.04	\$2.69	\$3.35	43.12%	60.90%
29	Westar Energy, Inc.	\$1.20	\$1.40	\$1.28	\$2.25	93.75%	62.22%
30	Wisconsin Energy Corporation	\$1.35	\$2.40	\$3.20	\$4.75	42.19%	50.53%
31	Xcel Energy Inc.	\$0.97	\$1.15	\$1.49	\$2.00	65.10%	57.50%
32	Average	\$1.38	\$1.73	\$2.27	\$3.04	67.06%	58.41%

Source:

The Value Line Investment Survey, February 26, March 26, and May 7, 2010.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY)
)
Request for a General Rate Revision.)

ICNU-CUB/210

SUSTAINABLE GROWTH RATE

JUNE 4, 2010

Portland General Electric Company

Sustainable Growth Rate

Line	Company	3 to 5 Year Projections									Growth Rate Plus S * V ¹ (10)
		Dividends	Earnings	Book Value	Adjustment		Adjusted	Payout	Retention	Internal	
		Per Share (1)	Per Share (2)	Per Share (3)	ROE (4)	Factor (5)	ROE (6)	Ratio (7)	Rate (8)	Growth Rate (9)	
1	Allegheny Energy, Inc.	\$1.20	\$3.25	\$26.85	12.10%	1.04	12.57%	36.92%	63.08%	7.93%	8.07%
2	ALLETE, Inc.	\$1.80	\$2.50	\$29.50	8.47%	1.01	8.57%	72.00%	28.00%	2.40%	3.20%
3	Alliant Energy Corporation	\$1.92	\$3.60	\$31.05	11.59%	1.02	11.84%	53.33%	46.67%	5.53%	5.83%
4	Ameren Corporation	\$1.70	\$3.00	\$38.25	7.84%	1.01	7.96%	56.67%	43.33%	3.45%	3.14%
5	American Electric Power Co.	\$1.90	\$3.50	\$35.25	9.93%	1.02	10.18%	54.29%	45.71%	4.65%	4.86%
6	Avista Corporation	\$1.30	\$2.00	\$22.50	8.89%	1.02	9.03%	65.00%	35.00%	3.16%	3.30%
7	Cleco Corporation	\$1.40	\$2.50	\$23.25	10.75%	1.02	11.01%	56.00%	44.00%	4.84%	5.54%
8	CMS Energy Corporation	\$0.90	\$1.60	\$15.00	10.67%	1.03	10.96%	56.25%	43.75%	4.79%	5.11%
9	DPL Inc.	\$1.50	\$2.90	\$10.80	26.85%	1.02	27.27%	51.72%	48.28%	13.16%	15.10%
10	DTE Energy Company	\$2.60	\$4.25	\$46.25	9.19%	1.02	9.37%	61.18%	38.82%	3.64%	3.90%
11	Duke Energy Corporation	\$1.10	\$1.50	\$18.75	8.00%	1.01	8.09%	73.33%	26.67%	2.16%	2.15%
12	Edison International	\$1.50	\$3.50	\$39.25	8.92%	1.03	9.15%	42.86%	57.14%	5.23%	5.23%
13	Empire District Electric Co.	\$1.35	\$1.75	\$17.50	10.00%	1.01	10.11%	77.14%	22.86%	2.31%	2.67%
14	Entergy Corporation	\$3.60	\$6.75	\$65.75	10.27%	1.04	10.64%	53.33%	46.67%	4.97%	4.23%
15	FPL Group, Inc.	\$2.40	\$4.75	\$43.50	10.92%	1.03	11.28%	50.53%	49.47%	5.58%	6.02%
16	Great Plains Energy Incorporated	\$1.20	\$1.75	\$22.25	7.87%	1.01	7.93%	68.57%	31.43%	2.49%	2.15%
17	Hawaiian Electric Industries, Inc.	\$1.30	\$2.00	\$18.75	10.67%	1.02	10.86%	65.00%	35.00%	3.80%	4.35%
18	IDACORP, Inc.	\$1.40	\$3.10	\$36.50	8.49%	1.02	8.68%	45.16%	54.84%	4.76%	5.06%
19	MGE Energy, Inc.	\$1.60	\$2.90	\$26.30	11.03%	1.02	11.24%	55.17%	44.83%	5.04%	5.24%
20	Northwestern Corporation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21	OGE Energy Corp.	\$1.60	\$3.50	\$30.25	11.57%	1.04	11.99%	45.71%	54.29%	6.51%	7.58%
22	PG&E Corporation	\$2.40	\$4.50	\$38.00	11.84%	1.03	12.21%	53.33%	46.67%	5.70%	6.50%
23	Pinnacle West Capital Corp.	\$2.30	\$3.50	\$38.50	9.09%	1.02	9.24%	65.71%	34.29%	3.17%	3.69%
24	Portland General Electric	\$1.20	\$2.00	\$23.25	8.60%	1.01	8.71%	60.00%	40.00%	3.48%	3.27%
25	Progress Energy Inc.	\$2.58	\$3.55	\$38.95	9.11%	1.01	9.23%	72.68%	27.32%	2.52%	2.62%
26	Southern Company	\$2.10	\$3.00	\$23.00	13.04%	1.02	13.36%	70.00%	30.00%	4.01%	5.37%
27	TECO Energy, Inc.	\$0.95	\$1.60	\$12.50	12.80%	1.02	13.12%	59.38%	40.63%	5.33%	5.63%
28	UniSource Energy Corporation	\$2.04	\$3.35	\$27.00	12.41%	1.03	12.72%	60.90%	39.10%	4.98%	5.30%
29	Westar Energy, Inc.	\$1.40	\$2.25	\$26.30	8.56%	1.02	8.76%	62.22%	37.78%	3.31%	3.37%
30	Wisconsin Energy Corporation	\$2.40	\$4.75	\$40.25	11.80%	1.03	12.13%	50.53%	49.47%	6.00%	6.01%
31	Xcel Energy Inc.	\$1.15	\$2.00	\$19.75	10.13%	1.02	10.34%	57.50%	42.50%	4.40%	4.89%
32	Average	\$1.73	\$3.04	\$29.50	10.71%	1.02	10.95%	58.41%	41.59%	4.64%	4.98%
33	Median										4.98%

Sources:

The Value Line Investment Survey, February 26, March 26, and May 7, 2010.

¹ Page 2, Column 9.

Portland General Electric Company

Sustainable Growth

Line	Company	13-Week	2009	Market	Common Shares		Growth	S Factor ³	V Factor ⁴	S * V
		Average		to Book	Outstanding (in Millions) ²					
		Stock Price ¹	Book Value P/S ²	Ratio	2009	3-5 Years				
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Allegheny Energy, Inc.	\$22.65	\$18.30	1.24	170.00	175.00	0.58%	0.72%	19.19%	0.14%
2	ALLETE, Inc.	\$33.88	\$26.41	1.28	35.20	40.50	2.84%	3.65%	22.05%	0.80%
3	Alliant Energy Corporation	\$33.02	\$25.07	1.32	110.66	116.00	0.95%	1.25%	24.07%	0.30%
4	Ameren Corporation	\$25.67	\$33.00	0.78	238.00	255.00	1.39%	1.08%	-28.54%	-0.31%
5	American Electric Power Co.	\$33.77	\$27.49	1.23	478.05	500.00	0.90%	1.11%	18.59%	0.21%
6	Avista Corporation	\$20.96	\$19.17	1.09	54.84	59.00	1.47%	1.61%	8.54%	0.14%
7	Cleco Corporation	\$26.34	\$18.30	1.44	61.00	66.00	1.59%	2.29%	30.54%	0.70%
8	CMS Energy Corporation	\$15.60	\$11.42	1.37	227.89	238.00	0.87%	1.19%	26.80%	0.32%
9	DPL Inc.	\$27.23	\$9.25	2.94	118.97	125.00	0.99%	2.93%	66.03%	1.93%
10	DTE Energy Company	\$45.09	\$38.19	1.18	165.40	178.00	1.48%	1.75%	15.29%	0.27%
11	Duke Energy Corporation	\$16.39	\$16.70	0.98	1309.00	1335.00	0.39%	0.39%	-1.88%	-0.01%
12	Edison International	\$33.76	\$30.20	1.12	325.81	325.81	0.00%	0.00%	10.54%	0.00%
13	Empire District Electric Co.	\$18.46	\$15.75	1.17	38.11	42.25	2.08%	2.44%	14.67%	0.36%
14	Entergy Corporation	\$79.45	\$45.54	1.74	189.12	180.00	-0.98%	-1.72%	42.68%	-0.73%
15	FPL Group, Inc.	\$48.36	\$31.25	1.55	415.00	432.00	0.81%	1.25%	35.38%	0.44%
16	Great Plains Energy Incorporated	\$18.46	\$20.62	0.90	135.42	159.00	3.26%	2.92%	-11.71%	-0.34%
17	Hawaiian Electric Industries, Inc.	\$21.88	\$15.58	1.40	92.52	99.00	1.36%	1.91%	28.81%	0.55%
18	IDACORP, Inc.	\$34.43	\$29.17	1.18	47.90	52.00	1.66%	1.95%	15.27%	0.30%
19	MGE Energy, Inc.	\$35.00	\$21.71	1.61	23.11	23.50	0.34%	0.54%	37.98%	0.21%
20	Northwestern Corporation	\$26.85	\$21.90	1.23	35.93	N/A	N/A	N/A	18.42%	N/A
21	OGE Energy Corp.	\$38.36	\$21.04	1.82	97.00	103.50	1.31%	2.38%	45.15%	1.07%
22	PG&E Corporation	\$42.44	\$27.88	1.52	370.60	400.00	1.54%	2.34%	34.30%	0.80%
23	Pinnacle West Capital Corp.	\$37.23	\$32.69	1.14	101.43	122.00	3.76%	4.28%	12.19%	0.52%
24	Portland General Electric	\$19.27	\$20.50	0.94	75.21	90.00	3.66%	3.44%	-6.37%	-0.22%
25	Progress Energy Inc.	\$38.97	\$34.30	1.14	280.00	290.00	0.70%	0.80%	11.99%	0.10%
26	Southern Company	\$32.99	\$18.10	1.82	820.00	890.00	1.65%	3.01%	45.13%	1.36%
27	TECO Energy, Inc.	\$15.90	\$9.75	1.63	213.90	219.00	0.47%	0.77%	38.68%	0.30%
28	UniSource Energy Corporation	\$31.63	\$20.94	1.51	35.85	37.00	0.63%	0.96%	33.79%	0.32%
29	Westar Energy, Inc.	\$22.28	\$20.78	1.07	109.07	114.00	0.89%	0.95%	6.74%	0.06%
30	Wisconsin Energy Corporation	\$50.03	\$30.51	1.64	116.91	117.00	0.02%	0.03%	39.01%	0.01%
31	Xcel Energy Inc.	\$21.18	\$15.92	1.33	457.51	493.00	1.51%	2.00%	24.84%	0.50%
32	Average	\$31.21	\$23.47	1.37	224.17	242.55	1.27%	1.61%	21.88%	0.34%

Sources and Notes:

¹ <http://moneycentral.msn.com>, downloaded on May 13, 2010.

² *The Value Line Investment Survey*, February 26, March 26, and May 7, 2010.

³ Expected Growth in the Number of Shares.

⁴ Expected Profit of Stock Investment.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY)
)
Request for a General Rate Revision.)

ICNU-CUB/211

SUSTAINABLE CONSTANT GROWTH DCF MODEL

JUNE 4, 2010

Portland General Electric Company

Sustainable Constant Growth DCF Model

<u>Line</u>	<u>Company</u>	<u>13-Week AVG Stock Price¹</u> (1)	<u>Sustainable Growth²</u> (2)	<u>Annualized Dividend³</u> (3)	<u>Adjusted Yield</u> (4)	<u>Constant Growth DCF</u> (5)
1	Allegheny Energy, Inc.	\$22.65	8.07%	\$0.60	2.86%	10.93%
2	ALLETE, Inc.	\$33.88	3.20%	\$1.76	5.36%	8.57%
3	Alliant Energy Corporation	\$33.02	5.83%	\$1.58	5.06%	10.89%
4	Ameren Corporation	\$25.67	3.14%	\$1.54	6.19%	9.33%
5	American Electric Power Co.	\$33.77	4.86%	\$1.64	5.09%	9.95%
6	Avista Corporation	\$20.96	3.30%	\$1.00	4.93%	8.23%
7	Cleco Corporation	\$26.34	5.54%	\$1.00	4.01%	9.55%
8	CMS Energy Corporation	\$15.60	5.11%	\$0.60	4.04%	9.16%
9	DPL Inc.	\$27.23	15.10%	\$1.21	5.12%	20.22%
10	DTE Energy Company	\$45.09	3.90%	\$2.12	4.89%	8.79%
11	Duke Energy Corporation	\$16.39	2.15%	\$0.96	5.98%	8.13%
12	Edison International	\$33.76	5.23%	\$1.26	3.93%	9.16%
13	Empire District Electric Co.	\$18.46	2.67%	\$1.28	7.12%	9.79%
14	Entergy Corporation	\$79.45	4.23%	\$3.00	3.94%	8.17%
15	FPL Group, Inc.	\$48.36	6.02%	\$2.00	4.38%	10.41%
16	Great Plains Energy Incorporated	\$18.46	2.15%	\$0.83	4.60%	6.75%
17	Hawaiian Electric Industries, Inc.	\$21.88	4.35%	\$1.24	5.91%	10.27%
18	IDACORP, Inc.	\$34.43	5.06%	\$1.20	3.66%	8.72%
19	MGE Energy, Inc.	\$35.00	5.24%	\$1.47	4.43%	9.67%
20	Northwestern Corporation	\$26.85	N/A	\$1.36	N/A	N/A
21	OGE Energy Corp.	\$38.36	7.58%	\$1.45	4.07%	11.65%
22	PG&E Corporation	\$42.44	6.50%	\$1.82	4.57%	11.07%
23	Pinnacle West Capital Corp.	\$37.23	3.69%	\$2.10	5.85%	9.54%
24	Portland General Electric	\$19.27	3.27%	\$1.02	5.47%	8.73%
25	Progress Energy Inc.	\$38.97	2.62%	\$2.48	6.53%	9.15%
26	Southern Company	\$32.99	5.37%	\$1.75	5.60%	10.96%
27	TECO Energy, Inc.	\$15.90	5.63%	\$0.80	5.31%	10.94%
28	UniSource Energy Corporation	\$31.63	5.30%	\$1.56	5.19%	10.49%
29	Westar Energy, Inc.	\$22.28	3.37%	\$1.24	5.75%	9.12%
30	Wisconsin Energy Corporation	\$50.03	6.01%	\$1.60	3.39%	9.40%
31	Xcel Energy Inc.	\$21.18	4.89%	\$0.98	4.85%	9.75%
32	Average	\$31.21	4.98%	\$1.43	4.94%	9.92%
33	Median					9.54%

Sources:

¹ <http://moneycentral.msn.com>, downloaded on May 13, 2010.

² Exhibit ICNU-CUB/210, Gorman/1, Column 10.

³ *The Value Line Investment Survey*, February 26, March 26, and May 7, 2010.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY)
)
Request for a General Rate Revision.)

ICNU-CUB/212

MULTI-STAGE GROWTH DCF MODEL

JUNE 4, 2010

Portland General Electric Company

Multi-Stage Growth DCF Model

Line	Company	13-Week AVG	Annualized	First Stage	Second Stage Growth					Third Stage	Multi-Stage
		Stock Price ¹	Dividend ²	Growth	Year 6	Year 7	Year 8	Year 9	Year 10	Growth ³	Growth DCF
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Allegheny Energy, Inc.	\$22.65	\$0.60	8.90%	8.22%	7.53%	6.85%	6.17%	5.48%	4.80%	8.40%
2	ALLETE, Inc.	\$33.88	\$1.76	5.56%	5.43%	5.30%	5.18%	5.05%	4.93%	4.80%	10.50%
3	Alliant Energy Corporation	\$33.02	\$1.58	6.42%	6.15%	5.88%	5.61%	5.34%	5.07%	4.80%	10.33%
4	Ameren Corporation	\$25.67	\$1.54	4.00%	4.13%	4.27%	4.40%	4.53%	4.67%	4.80%	10.79%
5	American Electric Power Co.	\$33.77	\$1.64	4.09%	4.21%	4.33%	4.45%	4.56%	4.68%	4.80%	9.67%
6	Avista Corporation	\$20.96	\$1.00	4.75%	4.76%	4.77%	4.78%	4.78%	4.79%	4.80%	9.78%
7	Cleco Corporation	\$26.34	\$1.00	6.67%	6.36%	6.04%	5.73%	5.42%	5.11%	4.80%	9.27%
8	CMS Energy Corporation	\$15.60	\$0.60	6.10%	5.88%	5.67%	5.45%	5.23%	5.02%	4.80%	9.17%
9	DPL Inc.	\$27.23	\$1.21	7.53%	7.08%	6.62%	6.17%	5.71%	5.26%	4.80%	10.30%
10	DTE Energy Company	\$45.09	\$2.12	4.80%	4.80%	4.80%	4.80%	4.80%	4.80%	4.80%	9.73%
11	Duke Energy Corporation	\$16.39	\$0.96	2.33%	2.74%	3.16%	3.57%	3.98%	4.39%	4.80%	10.08%
12	Edison International	\$33.76	\$1.26	3.67%	3.86%	4.04%	4.23%	4.42%	4.61%	4.80%	8.43%
13	Empire District Electric Co.	\$18.46	\$1.28	1.46%	2.02%	2.57%	3.13%	3.69%	4.24%	4.80%	10.75%
14	Entergy Corporation	\$79.45	\$3.00	7.44%	7.00%	6.56%	6.12%	5.68%	5.24%	4.80%	9.46%
15	FPL Group, Inc.	\$48.36	\$2.00	6.52%	6.24%	5.95%	5.66%	5.37%	5.09%	4.80%	9.62%
16	Great Plains Energy Incorporated	\$18.46	\$0.83	10.72%	9.74%	8.75%	7.76%	6.77%	5.79%	4.80%	11.47%
17	Hawaiian Electric Industries, Inc.	\$21.88	\$1.24	6.96%	6.60%	6.24%	5.88%	5.52%	5.16%	4.80%	11.54%
18	IDACORP, Inc.	\$34.43	\$1.20	4.83%	4.83%	4.82%	4.82%	4.81%	4.81%	4.80%	8.46%
19	MGE Energy, Inc.	\$35.00	\$1.47	3.86%	4.02%	4.17%	4.33%	4.49%	4.64%	4.80%	8.96%
20	Northwestern Corporation	\$26.85	\$1.36	7.00%	6.63%	6.27%	5.90%	5.53%	5.17%	4.80%	10.85%
21	OGE Energy Corp.	\$38.36	\$1.45	5.00%	4.97%	4.93%	4.90%	4.87%	4.83%	4.80%	8.81%
22	PG&E Corporation	\$42.44	\$1.82	7.05%	6.68%	6.30%	5.93%	5.55%	5.18%	4.80%	9.95%
23	Pinnacle West Capital Corp.	\$37.23	\$2.10	6.43%	6.16%	5.89%	5.62%	5.34%	5.07%	4.80%	11.31%
24	Portland General Electric	\$19.27	\$1.02	5.77%	5.61%	5.44%	5.28%	5.12%	4.96%	4.80%	10.68%
25	Progress Energy Inc.	\$38.97	\$2.48	3.79%	3.96%	4.13%	4.30%	4.46%	4.63%	4.80%	11.08%
26	Southern Company	\$32.99	\$1.75	5.16%	5.10%	5.04%	4.98%	4.92%	4.86%	4.80%	10.49%
27	TECO Energy, Inc.	\$15.90	\$0.80	6.66%	6.35%	6.04%	5.73%	5.42%	5.11%	4.80%	10.69%
28	UniSource Energy Corporation	\$31.63	\$1.56	5.00%	4.97%	4.93%	4.90%	4.87%	4.83%	4.80%	10.03%
29	Westar Energy, Inc.	\$22.28	\$1.24	5.08%	5.04%	4.99%	4.94%	4.89%	4.85%	4.80%	10.73%
30	Wisconsin Energy Corporation	\$50.03	\$1.60	9.27%	8.53%	7.78%	7.04%	6.29%	5.55%	4.80%	9.22%
31	Xcel Energy Inc.	\$21.18	\$0.98	5.90%	5.72%	5.54%	5.35%	5.17%	4.98%	4.80%	9.99%
32	Average	\$31.21	\$1.43	5.77%	5.61%	5.44%	5.28%	5.12%	4.96%	4.80%	10.02%
33	Median										10.03%

Sources:

¹ <http://moneycentral.msn.com>, downloaded on May 13, 2010.

² *The Value Line Investment Survey*, February 26, March 26, and May 7, 2010.

³ *Blue Chip Economic Indicators*, March 10, 2010 at 15.

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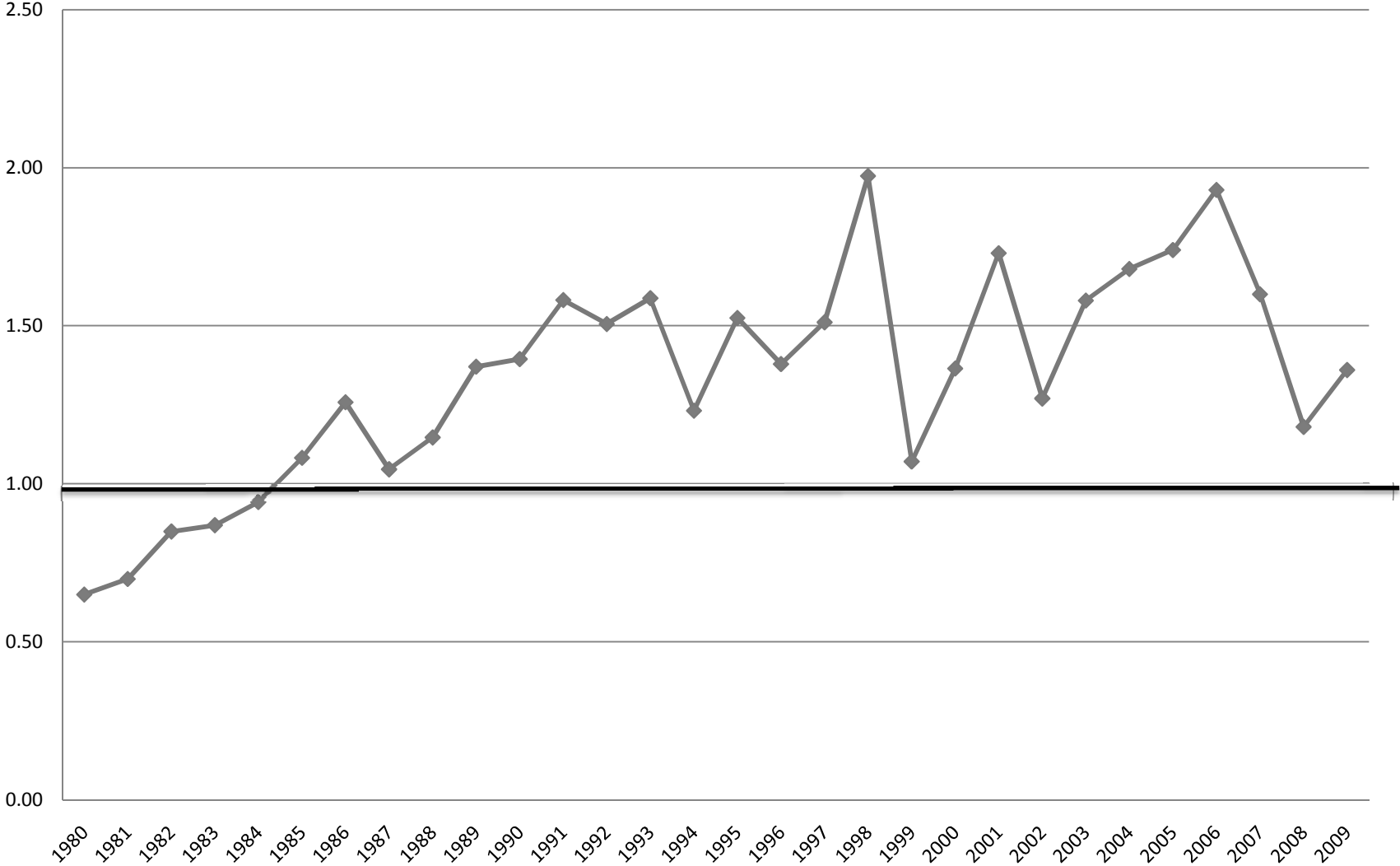
ICNU-CUB/213

ELECTRIC COMMON STOCK MARKET/BOOK RATIO

JUNE 4, 2010

Portland General Electric Company

Electric Common Stock Market/Book Ratio



Sources:
2001 - 2009: *AUS Utility Reports*.
1980 - 2000: *Mergent Public Utility Manual*, 2003.

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EQUITY RISK PREMIUM – TREASURY BOND

JUNE 4, 2010

Portland General Electric Company

Equity Risk Premium - Treasury Bond

<u>Line</u>	<u>Year</u>	<u>Authorized Electric Returns¹</u> (1)	<u>Treasury Bond Yield²</u> (2)	<u>Indicated Risk Premium</u> (3)
1	1986	13.93%	7.78%	6.15%
2	1987	12.99%	8.59%	4.40%
3	1988	12.79%	8.96%	3.83%
4	1989	12.97%	8.45%	4.52%
5	1990	12.70%	8.61%	4.09%
6	1991	12.55%	8.14%	4.41%
7	1992	12.09%	7.67%	4.42%
8	1993	11.41%	6.59%	4.82%
9	1994	11.34%	7.37%	3.97%
10	1995	11.55%	6.88%	4.67%
11	1996	11.39%	6.71%	4.68%
12	1997	11.40%	6.61%	4.79%
13	1998	11.66%	5.58%	6.08%
14	1999	10.77%	5.87%	4.90%
15	2000	11.43%	5.94%	5.49%
16	2001	11.09%	5.49%	5.60%
17	2002	11.16%	5.43%	5.73%
18	2003	10.97%	4.96%	6.01%
19	2004	10.75%	5.05%	5.70%
20	2005	10.54%	4.65%	5.89%
21	2006	10.36%	4.91%	5.45%
22	2007	10.36%	4.84%	5.52%
23	2008	10.46%	4.28%	6.18%
24	2009	10.48%	4.07%	6.41%
25	Q1 2010	10.66%	4.62%	6.04%
26	Average	11.51%	6.39%	5.16%

Sources:

¹ Regulatory Research Associates, Inc., *Regulatory Focus*, Jan. 85 - Dec. 06, and April 1, 2010.

² Economic Report of the President 2008: Table 73. The yields from 2002 to 2005 represent the 20-Year Treasury yields obtained from the Federal Reserve Bank.

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EQUITY RISK PREMIUM – UTILITY BOND

JUNE 4, 2010

Portland General Electric Company

Equity Risk Premium - Utility Bond

<u>Line</u>	<u>Year</u>	<u>Authorized Electric Returns¹</u> (1)	<u>Average "A" Rated Utility Bond Yield²</u> (2)	<u>Indicated Risk Premium</u> (3)
1	1986	13.93%	9.58%	4.35%
2	1987	12.99%	10.10%	2.89%
3	1988	12.79%	10.49%	2.30%
4	1989	12.97%	9.77%	3.20%
5	1990	12.70%	9.86%	2.84%
6	1991	12.55%	9.36%	3.19%
7	1992	12.09%	8.69%	3.40%
8	1993	11.41%	7.59%	3.82%
9	1994	11.34%	8.31%	3.03%
10	1995	11.55%	7.89%	3.66%
11	1996	11.39%	7.75%	3.64%
12	1997	11.40%	7.60%	3.80%
13	1998	11.66%	7.04%	4.62%
14	1999	10.77%	7.62%	3.15%
15	2000	11.43%	8.24%	3.19%
16	2001	11.09%	7.76%	3.33%
17	2002	11.16%	7.37%	3.79%
18	2003	10.97%	6.58%	4.39%
19	2004	10.75%	6.16%	4.59%
20	2005	10.54%	5.65%	4.89%
21	2006	10.36%	6.07%	4.29%
22	2007	10.36%	6.07%	4.29%
23	2008	10.46%	6.53%	3.93%
24	2009	10.48%	6.04%	4.44%
25	Q1 2010	10.66%	5.83%	4.83%
26	Average	11.55%	7.84%	3.71%

Sources:

¹ Regulatory Research Associates, Inc., *Regulatory Focus*, Jan. 85 - Dec. 06, and April 1, 2010.

² Economic Report of the President 2008: Table 73. The yields from 2002 to 2005 represent the 20-Year Treasury yields obtained from the Federal Reserve Bank.

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UTILITY BOND YIELD SPREADS

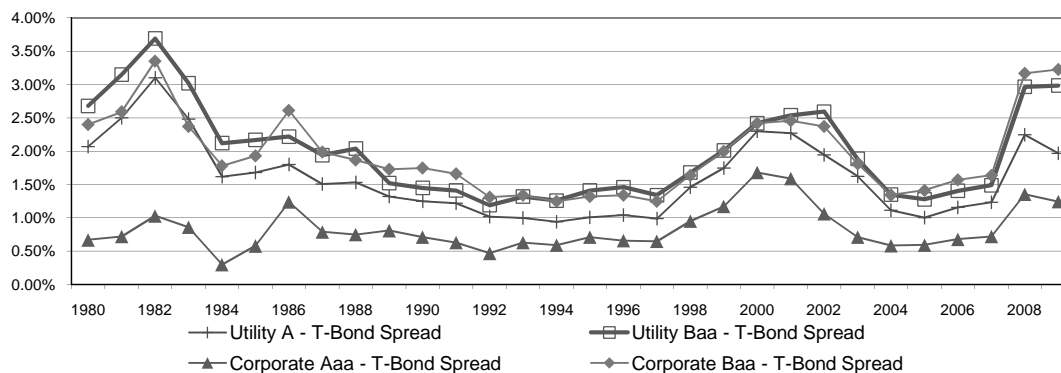
JUNE 4, 2010

Portland General Electric Company

Utility Bond Yield Spreads

Line	Year	Public Utility Bond Yields					Corporate Bond Yields				
		T-Bond Yield ¹ (1)	A ² (2)	Baa ² (3)	A-T-Bond Spread (4)	Baa-T-Bond Spread (5)	Aaa ¹ (6)	Baa ¹ (7)	Aaa-T-Bond Spread (8)	Baa-T-Bond Spread (9)	Baa Utility - Corporate (10)
1	1980	11.27%	13.34%	13.95%	2.07%	2.68%	11.94%	13.67%	0.67%	2.40%	0.28%
2	1981	13.45%	15.95%	16.60%	2.50%	3.15%	14.17%	16.04%	0.72%	2.59%	0.56%
3	1982	12.76%	15.86%	16.45%	3.10%	3.69%	13.79%	16.11%	1.03%	3.35%	0.34%
4	1983	11.18%	13.66%	14.20%	2.48%	3.02%	12.04%	13.55%	0.86%	2.37%	0.65%
5	1984	12.41%	14.03%	14.53%	1.62%	2.12%	12.71%	14.19%	0.30%	1.78%	0.34%
6	1985	10.79%	12.47%	12.96%	1.68%	2.17%	11.37%	12.72%	0.58%	1.93%	0.24%
7	1986	7.78%	9.58%	10.00%	1.80%	2.22%	9.02%	10.39%	1.24%	2.61%	-0.39%
8	1987	8.59%	10.10%	10.53%	1.51%	1.94%	9.38%	10.58%	0.79%	1.99%	-0.05%
9	1988	8.96%	10.49%	11.00%	1.53%	2.04%	9.71%	10.83%	0.75%	1.87%	0.17%
10	1989	8.45%	9.77%	9.97%	1.32%	1.52%	9.26%	10.18%	0.81%	1.73%	-0.21%
11	1990	8.61%	9.86%	10.06%	1.25%	1.45%	9.32%	10.36%	0.71%	1.75%	-0.30%
12	1991	8.14%	9.36%	9.55%	1.22%	1.41%	8.77%	9.80%	0.63%	1.66%	-0.25%
13	1992	7.67%	8.69%	8.86%	1.02%	1.19%	8.14%	8.98%	0.47%	1.31%	-0.12%
14	1993	6.59%	7.59%	7.91%	1.00%	1.32%	7.22%	7.93%	0.63%	1.34%	-0.02%
15	1994	7.37%	8.31%	8.63%	0.94%	1.26%	7.96%	8.62%	0.59%	1.25%	0.01%
16	1995	6.88%	7.89%	8.29%	1.01%	1.41%	7.59%	8.20%	0.71%	1.32%	0.09%
17	1996	6.71%	7.75%	8.17%	1.04%	1.46%	7.37%	8.05%	0.66%	1.34%	0.12%
18	1997	6.61%	7.60%	7.95%	0.99%	1.34%	7.26%	7.86%	0.65%	1.25%	0.09%
19	1998	5.58%	7.04%	7.26%	1.46%	1.68%	6.53%	7.22%	0.95%	1.64%	0.04%
20	1999	5.87%	7.62%	7.88%	1.75%	2.01%	7.04%	7.87%	1.17%	2.00%	0.01%
21	2000	5.94%	8.24%	8.36%	2.30%	2.42%	7.62%	8.36%	1.68%	2.42%	0.00%
22	2001	5.49%	7.76%	8.03%	2.27%	2.54%	7.08%	7.95%	1.59%	2.46%	0.08%
23	2002	5.43%	7.37%	8.02%	1.94%	2.59%	6.49%	7.80%	1.06%	2.37%	0.22%
24	2003	4.96%	6.58%	6.84%	1.62%	1.89%	5.67%	6.77%	0.71%	1.81%	0.07%
25	2004	5.05%	6.16%	6.40%	1.11%	1.35%	5.63%	6.39%	0.58%	1.34%	0.00%
26	2005	4.65%	5.65%	5.93%	1.00%	1.28%	5.24%	6.06%	0.59%	1.41%	-0.14%
27	2006	4.91%	6.07%	6.32%	1.16%	1.41%	5.59%	6.48%	0.68%	1.57%	-0.16%
28	2007	4.84%	6.07%	6.33%	1.23%	1.49%	5.56%	6.48%	0.72%	1.64%	-0.15%
29	2008	4.28%	6.53%	7.25%	2.25%	2.97%	5.63%	7.45%	1.35%	3.17%	-0.20%
30	2009	4.07%	6.04%	7.06%	1.97%	2.99%	5.31%	7.30%	1.24%	3.23%	-0.24%
31	Average	7.51%	9.11%	9.51%	1.61%	2.00%	8.35%	9.47%	0.84%	1.96%	0.04%

Yield Spreads
Treasury Vs. Corporate & Treasury Vs. Utility



Sources:

¹ Economic Report of the President 2008: Table 73 at 316. The yields from 2002 to 2005 represent the 20-Year Treasury yields obtained from the Federal Reserve Bank.

² Mergent Public Utility Manual 2003. Moody's Daily News Reports.

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UTILITY AND TREASURY BOND YIELDS

JUNE 4, 2010

Portland General Electric Company

Utility and Treasury Bond Yields

<u>Line</u>	<u>Date</u>	<u>Treasury Bond Yield¹</u> (1)	<u>"A" Rated Utility Bond Yield²</u> (2)	<u>"Baa" Rated Utility Bond Yield²</u> (3)
1	05/07/10	4.36%	5.49%	5.88%
2	04/30/10	4.60%	5.60%	5.98%
3	04/23/10	4.66%	5.75%	6.14%
4	04/16/10	4.70%	5.78%	6.17%
5	04/09/10	4.78%	5.90%	6.26%
6	04/01/10	4.76%	5.91%	6.26%
7	03/26/10	4.68%	5.93%	6.30%
8	03/19/10	4.59%	5.77%	6.16%
9	03/12/10	4.67%	5.83%	6.21%
10	03/05/10	4.58%	5.86%	6.25%
11	02/26/10	4.62%	5.77%	6.17%
12	02/19/10	4.70%	5.95%	6.36%
13	02/12/10	4.62%	5.93%	6.30%
14	13-Wk Average	4.64%	5.81%	6.19%

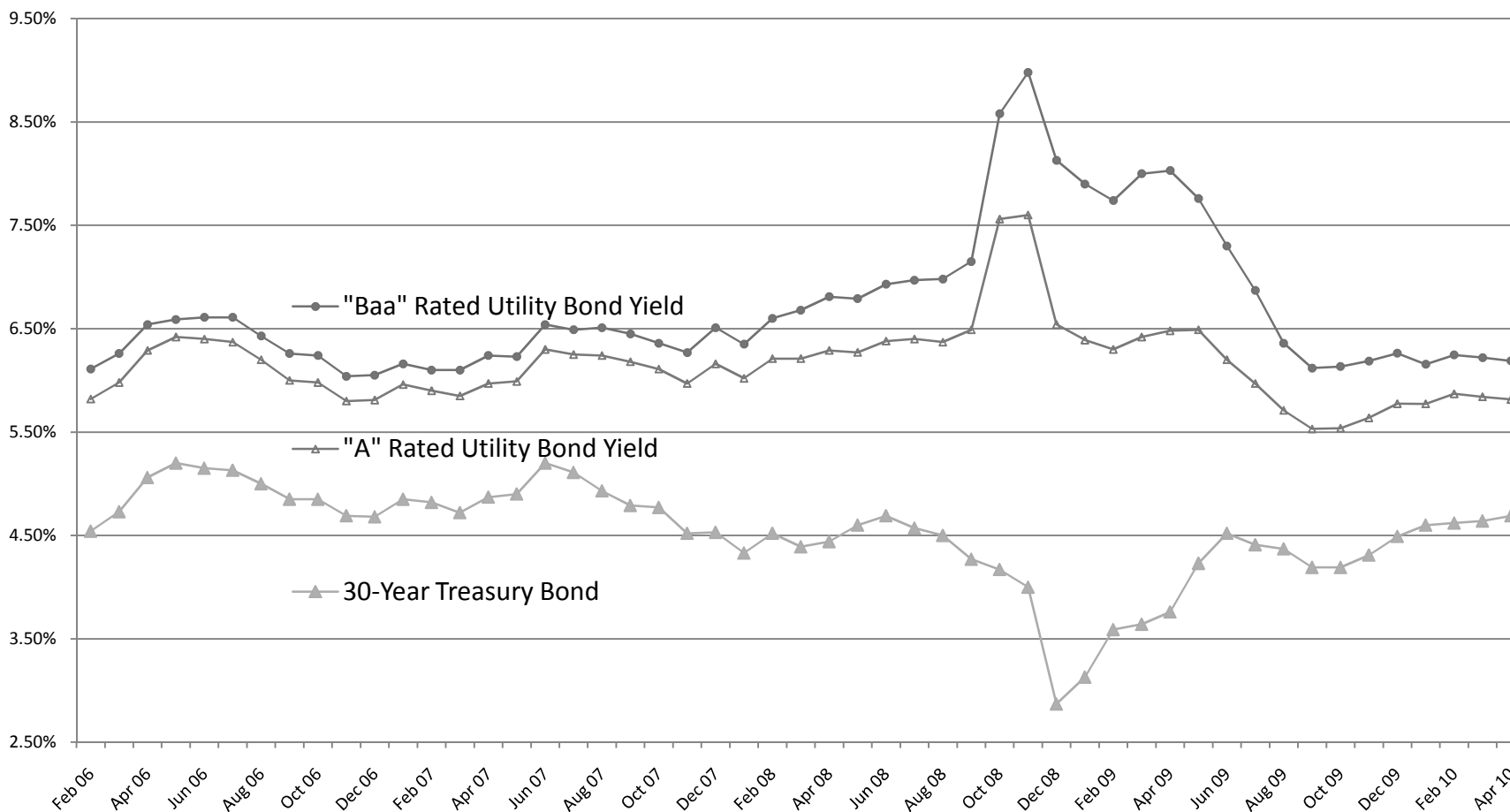
Sources:

¹ St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org>.

² www.moody.com, Bond Yields and Key Indicators.

Portland General Electric Company

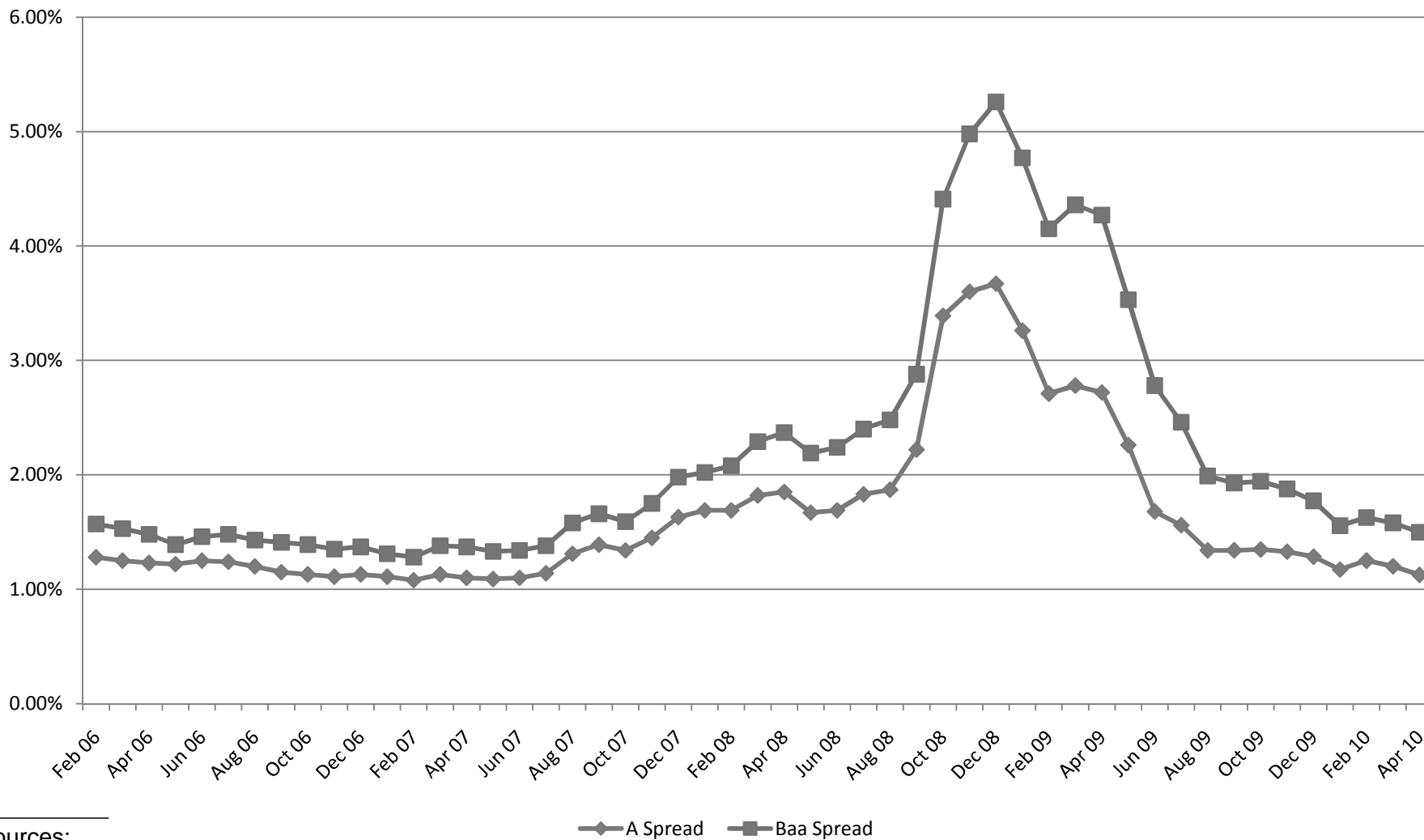
Trends in Utility Bond Yields



Sources:
Merchant Bond Record.
www.moodys.com, Bond Yields and Key Indicators.
St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>

Portland General Electric Company

Spread Between "A" or "Baa" Rated Utility Yield and 30-Year Treasury Bond



Sources:

Merchant Bond Record.

www.moodys.com, Bond Yields and Key Indicators.

St. Louis Federal Reserve: Economic Research, <http://research.stlouisfed.org/>

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BETA

JUNE 4, 2010

Portland General Electric Company

Beta

<u>Line</u>	<u>Company</u>	<u>Beta</u>
1	Allegheny Energy, Inc.	0.95
2	ALLETE, Inc.	0.70
3	Alliant Energy Corporation	0.70
4	Ameren Corporation	0.80
5	American Electric Power Co.	0.70
6	Avista Corporation	0.70
7	Cleco Corporation	0.65
8	CMS Energy Corporation	0.75
9	DPL Inc.	0.60
10	DTE Energy Company	0.75
11	Duke Energy Corporation	0.65
12	Edison International	0.80
13	Empire District Electric Co.	0.70
14	Entergy Corporation	0.70
15	FPL Group, Inc.	0.75
16	Great Plains Energy Incorporated	0.75
17	Hawaiian Electric Industries, Inc.	0.70
18	IDACORP, Inc.	0.70
19	MGE Energy, Inc.	0.65
20	Northwestern Corporation	0.70
21	OGE Energy Corp.	0.75
22	PG&E Corporation	0.55
23	Pinnacle West Capital Corp.	0.75
24	Portland General Electric	0.70
25	Progress Energy Inc.	0.60
26	Southern Company	0.55
27	TECO Energy, Inc.	0.85
28	UniSource Energy Corporation	0.70
29	Westar Energy, Inc.	0.75
30	Wisconsin Energy Corporation	0.65
31	Xcel Energy Inc.	0.65
32	Average	0.71

Source:
The Value Line Investment Survey,
February 26, March 26, and May 7, 2010.

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CAPM

JUNE 4, 2010

Portland General Electric Company

CAPM

<u>Line</u>	<u>Description</u>	<u>CAPM Range</u>	
		<u>Low</u>	<u>High</u>
1	Risk-Free Rate ¹	5.30%	5.30%
2	Risk Premium ²	5.20%	6.70%
3	Beta ³	0.71	0.71
4	CAPM	8.97%	10.03%
5	CAPM Average		9.50%

Sources:

¹ *Blue Chip Financial Forecasts*; May 1, 2010, at 2.

² Morningstar, Inc. *Ibbotson SBBI 2010 Valuation Yearbook*, at 54 and 66.

³ *The Value Line Investment Survey*, February 26, March 26, and May 7, 2010.

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S&P CREDIT METRICS

JUNE 4, 2010

Portland General Electric Company

S&P Credit Metrics

Line	Description	Amount (1)	S&P Benchmark ^{1/3}			Reference (5)
			Intermediate (2)	Significant (3)	Aggressive (4)	
1	Rate Base (\$ 000)	\$ 3,243,601				PGE Exhibit 301, Tooman - Tinker at 3.
2	Weighted Common Return	4.64%				Exhibit ICNU-CUB/202, Gorman/1, Line 2, Col. 4.
3	Pre-Tax Rate of Return	11.05%				Exhibit ICNU-CUB/202, Gorman/1, Line 3, Col. 5.
4	Income to Common	\$ 150,428				Line 1 x Line 2.
5	EBIT	\$ 358,428				Line 1 x Line 3.
6	Depreciation & Amortization	\$ 232,564				PGE Exhibit 301, Tooman - Tinker at 3.
7	Imputed Amortization	\$ 14,300				Page 3, Line 15.
8	Deferred Income Taxes & ITC	\$ 64,900				PGE Exhibit 301, Tooman - Tinker at 3.
9	Funds from Operations (FFO)	\$ 462,192				Sum of Line 4 and Lines 6 through 8.
10	Imputed Interest Expense	\$ 16,400				Page 3, Line 14.
11	EBITDA	\$ 621,692				Sum of Lines 5 through 7 and Line 10.
12	Total Debt Ratio	55%	35% - 45%	45% - 50%	50% - 60%	Page 2, Line 3.
13	Debt to EBITDA	2.9x	2.0x - 3.0x	3.0x - 4.0x	4.0x - 5.0x	(Line 1 x Line 12) / Line 11.
14	FFO to Total Debt	26%	30% - 45%	20% - 30%	12% - 20%	Line 9 / (Line 1 x Line 12).

Sources:

¹ Standard & Poor's: "U.S. Utilities Ratings Analysis Now Portrayed in The S&P Corporate Ratings Matrix," May 27, 2009.

² Standard & Poor's: "U.S. Integrated Electric Utility Companies, Strongest to Weakest," March 2, 2010.

Note:

Based on the new S&P metrics, PGE has a "Strong" business profile and a "Significant" financial profile.

Portland General Electric Company

S&P Credit Metrics Financial Capital Structure

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)	<u>Weight</u> (2)
1	Long-Term Debt	\$ 1,809,600	48.78%
2	Off-Balance Sheet Debt	\$ 242,300	6.53%
3	Total Long-Term Debt	\$ 2,051,900	55.31%
4	Common Equity	\$ 1,657,814	44.69%
5	Total	\$ 3,709,714	100.00%

Source:
Exhibit ICNU-CUB/202.

Portland General Electric Company

S&P Credit Metrics **Off-Balance Sheet Debt Equivalents**

<u>Line</u>	<u>Description</u>	<u>Amount</u> (1)
<u>Total Company</u> ¹		
<u>Off-Balance Sheet Debt</u>		
1	Operating Leases	\$ 98,600,000
2	Purchased Power Agreements	<u>\$ 143,700,000</u>
3	Total Off-Balance Sheet Debt	\$ 242,300,000
<u>Imputed Interest Expense</u>		
4	Operating Leases	\$ 6,600,000
5	Purchased Power Agreements	<u>\$ 9,800,000</u>
6	Total Imputed Interest Expense	\$ 16,400,000
<u>Imputed Amortization Expense</u>		
7	Operating Leases	\$ 900,000
8	Purchased Power Agreements	<u>\$ 13,400,000</u>
9	Total Imputed Amortization Expense	\$ 14,300,000

Source:

¹ Standard & Poor's: "Portland General Electric Co,"
February 3, 2010, Table 4 at 6-7.

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REVISIONS TO DR. ZEPP'S DCF MODELS

JUNE 4, 2010

Portland General Electric Company

Summary of the Revisions to Dr. Zepp's DCF Models

<u>Line</u>	<u>Description</u>	<u>Company Proposed Equity Cost Estimates (1)</u>	<u>Gorman Adjusted Equity Cost Estimates (2)</u>
1	Constant Growth DCF Model	11.5%	10.9%
2	FERC Multi-Period DCF Method	11.5%	10.3%
3	Multi-Stage DCF Growth Analysis	11.2%	9.6%
4	Average	11.4%	10.3%

Portland General Electric Company

Revision of Dr. Zepp's Constant Growth DCF Model

<u>Line</u>	<u>Company</u>	<u>Dividend Yield¹</u> (1)	<u>Growth Rates²</u> (2)	<u>Equity Cost Estimates</u> (3)
1	Allegheny Energy, Inc.	2.76%	8.05%	10.81%
2	ALLETE, Inc.	5.40%	5.56%	10.96%
3	Alliant Energy Corporation	4.98%	6.57%	11.55%
4	Ameren Corporation	6.24%	3.00%	9.24%
5	American Electric Power Co.	5.05%	3.82%	8.87%
6	Avista Corporation	4.96%	5.69%	10.65%
7	Cleco Corporation	3.95%	7.00%	10.95%
8	CMS Energy Corporation	4.00%	6.95%	10.95%
9	DPL Inc.	4.63%	7.28%	11.90%
10	DTE Energy Company	4.89%	5.35%	10.24%
11	Duke Energy Corporation	6.09%	3.13%	9.22%
12	Edison International	3.88%	2.88%	6.76%
13	Empire District Electric Co.	7.21%	4.23%	11.44%
14	Entergy Corporation	3.93%	6.83%	10.76%
15	FPL Group, Inc.	4.30%	6.64%	10.94%
16	Great Plains Energy Inc.	4.69%	9.17%	13.86%
17	Hawaiian Electric Industries, Inc.	5.89%	8.10%	13.99%
18	IDACORP, Inc.	3.63%	5.00%	8.63%
19	MGE Energy, Inc.	4.38%	4.57%	8.95%
20	Northwestern Corporation	5.27%	7.00%	12.27%
21	OGE Energy Corp.	3.93%	5.00%	8.93%
22	PG&E Corporation	4.46%	7.04%	11.50%
23	Pinnacle West Capital Corp.	5.87%	6.33%	12.19%
24	Portland General Electric	5.51%	5.08%	10.58%
25	Progress Energy Inc.	6.62%	3.97%	10.58%
26	Southern Company	5.52%	5.00%	10.52%
27	TECO Energy, Inc.	5.23%	6.50%	11.73%
28	UniSource Energy Corporation	5.13%	8.00%	13.13%
29	Westar Energy, Inc.	5.79%	5.69%	11.48%
30	Wisconsin Energy Corporation	3.33%	8.96%	12.28%
31	Xcel Energy Inc.	4.81%	5.80%	10.61%
32	Average	4.9%	5.9%	10.9%
33	Median	5.0%	5.8%	10.9%

Sources:

¹ Response ICNU-CUB 001, Attachment 001-A, updated Table 5.

² *The Value Line Investment Survey*, February 26, March 26, and May 7, 2010, and Exhibit ICNU-CUB/204.

Portland General Electric Company

Revision of Dr. Zepp's FERC Multi-Period DCF Method

Line	Company	Dividend Yield ¹ (1)	Low Estimate ²		High Estimate ^{2/3}	
			Low Growth (2)	Low Equity Cost Estimate (3)	High Growth (4)	High Equity Cost Estimate (5)
1	Allegheny Energy, Inc.	2.76%	3.59%	6.35%	13.64%	16.40%
2	ALLETE, Inc.	5.40%	4.04%	9.45%	6.94%	12.35%
3	Alliant Energy Corporation	4.98%	4.26%	9.24%	7.79%	12.77%
4	Ameren Corporation	6.24%	2.25%	8.49%	4.26%	10.50%
5	American Electric Power Co.	5.05%	3.59%	8.65%	4.71%	9.76%
6	Avista Corporation	4.96%	4.60%	9.56%	7.28%	12.24%
7	Cleco Corporation	3.95%	4.26%	8.21%	7.61%	11.56%
8	CMS Energy Corporation	4.00%	5.60%	9.60%	7.95%	11.95%
9	DPL Inc.	4.63%	4.93%	9.56%	9.42%	14.05%
10	DTE Energy Company	4.89%	4.60%	9.49%	6.27%	11.16%
11	Duke Energy Corporation	6.09%	2.25%	8.34%	5.27%	11.36%
12	Edison International	3.88%	1.92%	5.80%	4.93%	8.82%
13	Empire District Electric Co.	7.21%	2.56%	9.77%	6.27%	13.49%
14	Entergy Corporation	3.93%	4.93%	8.86%	8.30%	12.23%
15	FPL Group, Inc.	4.30%	5.81%	10.11%	6.27%	10.58%
16	Great Plains Energy Inc.	4.69%	4.60%	9.29%	10.29%	14.98%
17	Hawaiian Electric Industries, Inc.	5.89%	4.93%	10.83%	9.29%	15.18%
18	IDACORP, Inc.	3.63%	4.60%	8.22%	5.27%	8.89%
19	MGE Energy, Inc.	4.38%	3.41%	7.78%	5.60%	9.98%
20	Northwestern Corporation	5.27%	6.27%	11.54%	6.27%	11.54%
21	OGE Energy Corp.	3.93%	4.60%	8.53%	5.27%	9.20%
22	PG&E Corporation	4.46%	6.01%	10.47%	6.72%	11.18%
23	Pinnacle West Capital Corp.	5.87%	5.47%	11.34%	6.27%	12.14%
24	Portland General Electric	5.51%	3.59%	9.10%	5.60%	11.11%
25	Progress Energy Inc.	6.62%	3.86%	10.48%	4.60%	11.22%
26	Southern Company	5.52%	4.60%	10.12%	5.34%	10.86%
27	TECO Energy, Inc.	5.23%	5.27%	10.50%	7.00%	12.24%
28	UniSource Energy Corporation	5.13%	4.93%	10.07%	10.96%	16.10%
29	Westar Energy, Inc.	5.79%	4.77%	10.55%	6.61%	12.40%
30	Wisconsin Energy Corporation	3.33%	6.94%	10.27%	7.95%	11.28%
31	Xcel Energy Inc.	4.81%	5.27%	10.08%	5.61%	10.42%
32	Average			9.5%		11.2%
33	Midpoint				10.3%	
34	Median			9.6%		11.2%
35	Midpoint				10.4%	

Sources and Notes:

¹ Response ICNU-CUB 001, Attachment 001-A, updated Table 5.

² Used FERC method of assigning a weight of two-thirds to average EPS growth rates reported in Mr. Gorman Workpapers and one-third to a forecast GDP growth of 4.8%.

³ Excluded high-end estimates based on growth rates higher than 9.0%.

⁴ Low equity cost estimate equal to or below the current cost of investment grade debt of 6.19%.

Portland General Electric Company

Revision of Dr. Zepp's Alternative Multi-Stage DCF Growth Analysis

Line	Company	Internal Rate of Return (1)	Recent Price (2)	First Year Dividend 2010 ¹ (3)	Stage One ²		Stage Two ³		Stage Three ⁴	
					Year 1 2011 (4)	Year 5 2015 (5)	Year 6 2016 (6)	Year 15 2025 (7)	Year 16 2026 (8)	Year 200 2210 (9)
1	Allegheny Energy, Inc.	8.07%	-\$22.65	\$0.62	\$0.67	\$0.92	\$0.99	\$1.69	\$1.77	\$9,854.30
2	ALLETE, Inc.	9.98%	-\$33.88	\$1.83	\$1.93	\$2.40	\$2.53	\$3.96	\$4.15	\$23,139.30
3	Alliant Energy Corporation	9.93%	-\$33.02	\$1.64	\$1.75	\$2.26	\$2.40	\$3.89	\$4.08	\$22,745.62
4	Ameren Corporation	9.81%	-\$25.67	\$1.60	\$1.65	\$1.86	\$1.92	\$2.74	\$2.88	\$16,043.05
5	American Electric Power Co.	9.11%	-\$33.77	\$1.71	\$1.77	\$2.06	\$2.14	\$3.15	\$3.30	\$18,414.13
6	Avista Corporation	9.63%	-\$20.96	\$1.04	\$1.10	\$1.37	\$1.45	\$2.28	\$2.38	\$13,303.17
7	Cleco Corporation	9.06%	-\$26.34	\$1.04	\$1.11	\$1.46	\$1.56	\$2.56	\$2.68	\$14,962.55
8	CMS Energy Corporation	9.10%	-\$15.60	\$0.62	\$0.67	\$0.87	\$0.93	\$1.53	\$1.60	\$8,937.62
9	DPL Inc.	9.83%	-\$27.23	\$1.26	\$1.35	\$1.79	\$1.92	\$3.18	\$3.33	\$18,583.99
10	DTE Energy Company	9.45%	-\$45.09	\$2.20	\$2.32	\$2.86	\$3.01	\$4.68	\$4.90	\$27,357.66
11	Duke Energy Corporation	9.74%	-\$16.39	\$1.00	\$1.03	\$1.16	\$1.20	\$1.73	\$1.81	\$10,116.42
12	Edison International	7.89%	-\$33.76	\$1.31	\$1.35	\$1.51	\$1.56	\$2.22	\$2.33	\$12,976.05
13	Empire District Electric Co.	11.06%	-\$18.46	\$1.33	\$1.39	\$1.64	\$1.71	\$2.55	\$2.68	\$14,923.02
14	Entergy Corporation	8.98%	-\$79.45	\$3.12	\$3.33	\$4.34	\$4.63	\$7.56	\$7.93	\$44,222.25
15	FPL Group, Inc.	9.30%	-\$48.36	\$2.08	\$2.22	\$2.87	\$3.05	\$4.96	\$5.20	\$28,985.58
16	Great Plains Energy Inc.	10.55%	-\$18.46	\$0.86	\$0.94	\$1.34	\$1.46	\$2.58	\$2.70	\$15,076.92
17	Hawaiian Electric	11.40%	-\$21.88	\$1.29	\$1.39	\$1.90	\$2.05	\$3.50	\$3.67	\$20,446.71
18	IDACORP, Inc.	8.20%	-\$34.43	\$1.25	\$1.31	\$1.59	\$1.67	\$2.57	\$2.69	\$15,003.27
19	MGE Energy, Inc.	8.76%	-\$35.00	\$1.53	\$1.60	\$1.92	\$2.00	\$3.03	\$3.18	\$17,724.97
20	Northwestern Corporation	10.37%	-\$26.85	\$1.41	\$1.51	\$1.98	\$2.12	\$3.48	\$3.65	\$20,349.07
21	OG Energy Corp.	8.48%	-\$38.36	\$1.51	\$1.58	\$1.92	\$2.02	\$3.10	\$3.25	\$18,128.96
22	PG&E Corporation	9.58%	-\$42.44	\$1.89	\$2.03	\$2.66	\$2.84	\$4.68	\$4.90	\$27,329.06
23	Pinnacle West Capital Corp.	10.68%	-\$37.23	\$2.18	\$2.32	\$2.97	\$3.15	\$5.06	\$5.30	\$29,582.54
24	Portland General Electric	9.92%	-\$19.27	\$1.06	\$1.11	\$1.36	\$1.43	\$2.20	\$2.30	\$12,839.62
25	Progress Energy Inc.	10.46%	-\$38.97	\$2.58	\$2.68	\$3.13	\$3.26	\$4.83	\$5.06	\$28,229.74
26	Southern Company	9.90%	-\$32.99	\$1.82	\$1.91	\$2.32	\$2.44	\$3.75	\$3.93	\$21,899.83
27	TECO Energy, Inc.	10.16%	-\$15.90	\$0.83	\$0.89	\$1.14	\$1.21	\$1.96	\$2.05	\$11,444.90
28	UniSource Energy Corporation	10.58%	-\$31.63	\$1.62	\$1.75	\$2.38	\$2.57	\$4.36	\$4.57	\$25,508.19
29	Westar Energy, Inc.	10.38%	-\$22.28	\$1.29	\$1.36	\$1.70	\$1.80	\$2.82	\$2.96	\$16,495.93
30	Wisconsin Energy Corp	8.95%	-\$50.03	\$1.66	\$1.81	\$2.55	\$2.77	\$4.87	\$5.10	\$28,458.69
31	Xcel Energy Inc.	9.53%	-\$21.18	\$1.02	\$1.08	\$1.35	\$1.43	\$2.25	\$2.36	\$13,172.71
32	Average	9.6%								

Sources and Notes:

¹ *The Value Line Investment Survey*, February 26, March 26, and May 7, 2010.

² Response ICNU-CUB 001, Attachment 001-A, updated Table 8.

³ Growth based on gradual transition from analysts' forecasts of growth to expected long-term average GDP growth of 4.8%.

⁴ GDP growth of 4.8%.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY)
)
Request for a General Rate Revision.)

ICNU-CUB/222

**ACCURACY OF INTEREST RATE FORECASTS
(LONG-TERM TREASURY BOND YIELDS – PROJECTED VS. ACTUAL)**

JUNE 4, 2010

Portland General Electric Company

Accuracy of Interest Rate Forecasts (Long-Term Treasury Bond Yields - Projected Vs. Actual)

Line	Date	Publication Data			Actual Yield in Projected Quarter	Projected Yield Higher (Lower) Than Actual Yield*
		Prior Quarter	Projected	Projected		
		Actual Yield (1)	Yield (2)	Quarter (3)		
1	Dec-00	5.8%	5.8%	1Q, 02	5.6%	0.2%
2	Mar-01	5.7%	5.6%	2Q, 02	5.8%	-0.2%
3	Jun-01	5.4%	5.8%	3Q, 02	5.2%	0.6%
4	Sep-01	5.7%	5.9%	4Q, 02	5.1%	0.8%
5	Dec-01	5.5%	5.7%	1Q, 03	5.0%	0.7%
6	Mar-02	5.3%	5.9%	2Q, 03	4.7%	1.2%
7	Jun-02	5.6%	6.2%	3Q, 03	5.2%	1.0%
8	Sep-02	5.8%	5.9%	4Q, 03	5.2%	0.7%
9	Dec-02	5.2%	5.7%	1Q, 04	4.9%	0.8%
10	Mar-03	5.1%	5.7%	2Q, 04	5.4%	0.3%
11	Jun-03	5.0%	5.4%	3Q, 04	5.1%	0.3%
12	Sep-03	4.7%	5.8%	4Q, 04	4.9%	0.9%
13	Dec-03	5.2%	5.9%	1Q, 05	4.8%	1.1%
14	Mar-04	5.2%	5.9%	2Q, 05	4.6%	1.4%
15	Jun-04	4.9%	6.2%	3Q, 05	4.5%	1.7%
16	Sep-04	5.4%	6.0%	4Q, 05	4.8%	1.2%
17	Dec-04	5.1%	5.8%	1Q, 06	4.6%	1.2%
18	Mar-05	4.9%	5.6%	2Q, 06	5.1%	0.5%
19	Jun-05	4.8%	5.5%	3Q, 06	5.0%	0.5%
20	Sep-05	4.6%	5.2%	4Q, 06	4.7%	0.5%
21	Dec-05	4.5%	5.3%	1Q, 07	4.8%	0.5%
22	Mar-06	4.8%	5.1%	2Q, 07	5.0%	0.1%
23	Jun-06	4.6%	5.3%	3Q, 07	4.9%	0.4%
24	Sep-06	5.1%	5.2%	4Q, 07	4.6%	0.6%
25	Dec-06	5.0%	5.0%	1Q, 08	4.4%	0.6%
26	Mar-07	4.7%	5.1%	2Q, 08	4.6%	0.5%
27	Jun-07	4.8%	5.1%	3Q, 08	4.5%	0.7%
28	Sep-07	5.0%	5.2%	4Q, 08	3.7%	1.5%
29	Dec-07	4.9%	4.8%	1Q, 09	3.5%	1.4%
30	Mar-08	4.6%	4.8%	2Q, 09	4.0%	0.8%
31	Jun-08	4.4%	4.9%	3Q, 09	4.3%	0.6%
32	Sep-08	4.6%	5.1%	4Q, 09	4.3%	0.8%
33	Oct-08	4.6%	4.9%	1Q, 10		
34	Nov-08	4.5%	4.6%	1Q, 10		
35	Dec-08	4.5%	4.6%	1Q, 10		
36	Jan-09	3.8%	4.0%	2Q, 10		
37	Feb-09	3.7%	3.9%	2Q, 10		
38	Mar-09	3.7%	4.1%	2Q, 10		
39	Apr-09	3.5%	4.3%	3Q, 10		
40	May-09	3.5%	4.3%	3Q, 10		
41	Jun-09	3.5%	4.6%	3Q, 10		
42	Jul-09	4.0%	5.0%	4Q, 10		
43	Aug-09	4.0%	5.0%	4Q, 10		
44	Sep-09	4.0%	5.0%	4Q, 10		
45	Oct-09	4.3%	5.1%	1Q, 11		
46	Nov-09	4.3%	5.0%	1Q, 11		
47	Dec-09	4.3%	5.0%	1Q, 11		
48	Jan-10	4.3%	5.2%	2Q, 11		
49	Feb-10	4.3%	5.2%	2Q, 11		
50	Mar-10	4.3%	5.2%	2Q, 11		
51	Apr-10	4.6%	5.3%	3Q, 11		
52	May-10	4.6%	5.3%	3Q, 11		

Source:
Blue Chip Financial Forecasts, Various Dates.
* Col. 2 - Col. 4.

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 215

In the Matter of)
)
PORTLAND GENERAL ELECTRIC)
COMPANY)
)
Request for a General Rate Revision.)

ICNU-CUB/223

CAPITAL SPENDING TO NET PLANT

JUNE 4, 2010

Portland General Electric Company

Capital Spending to Net Plant

Line	Proxy Group	Net Plant (\$ mill)		Capital Spending (\$ mill)		Capital Spending To Net Plant	
		2009	Proj. 3-5 Yr.	2009	Proj. 3-5 Yr.	2009	Proj. 3-5 Yr.
		(1)	(2)	(3)	(4)	(5)	(6)
1	Allegheny Energy, Inc.	\$8,957	\$10,100	\$1,080	\$998	12.05%	9.88%
2	ALLETE, Inc.	\$1,623	\$2,125	\$319	\$111	19.63%	5.24%
3	Alliant Energy Corporation	\$6,203	\$7,500	\$1,150	\$1,398	18.54%	18.64%
4	Ameren Corporation	\$17,610	\$20,300	\$1,785	\$1,785	10.14%	8.79%
5	American Electric Power Co.	\$34,344	\$38,300	\$2,959	\$3,250	8.62%	8.49%
6	Avista Corporation	\$2,607	\$2,925	\$212	\$280	8.12%	9.58%
7	Cleco Corporation	\$2,247	\$2,525	\$226	\$231	10.04%	9.15%
8	CMS Energy Corporation	\$9,682	\$14,000	\$818	\$1,964	8.45%	14.03%
9	DPL Inc.	\$2,892	\$3,400	\$173	\$300	5.96%	8.82%
10	DTE Energy Company	\$12,431	\$13,900	\$1,035	\$1,380	8.33%	9.92%
11	Duke Energy Corporation	\$37,950	\$53,300	\$4,582	\$5,006	12.07%	9.39%
12	Edison International	\$21,966	\$36,600	\$3,281	\$4,236	14.94%	11.57%
13	Empire District Electric Co.	\$1,459	\$1,550	\$155	\$85	10.63%	5.45%
14	Entergy Corporation	\$23,389	\$27,900	\$2,457	\$2,520	10.50%	9.03%
15	FPL Group, Inc.	\$36,078	\$56,300	\$5,997	\$7,452	16.62%	13.24%
16	Great Plains Energy Incorporated	\$6,651	\$7,900	\$879	\$517	13.21%	6.54%
17	Hawaiian Electric Industries, Inc.	\$3,089	\$3,800	\$304	\$371	9.86%	9.77%
18	IDACORP, Inc.	\$2,917	\$3,600	\$252	\$390	8.64%	10.83%
19	MGE Energy, Inc.	\$940	\$1,000	\$82	\$59	8.68%	5.88%
20	Northwestern Corporation	N/A	N/A	\$189	N/A	N/A	N/A
21	OGE Energy Corp.	\$5,912	\$7,125	\$848	\$440	14.34%	6.17%
22	PG&E Corporation	\$28,892	\$42,200	\$3,958	\$5,000	13.70%	11.85%
23	Pinnacle West Capital Corp.	\$9,258	\$11,900	\$775	\$1,098	8.37%	9.23%
24	Portland General Electric	\$3,858	\$4,800	\$696	\$405	18.03%	8.44%
25	Progress Energy Inc.	\$19,700	\$22,400	\$2,198	\$2,320	11.16%	10.36%
26	Southern Company	\$39,950	\$57,900	\$5,699	\$6,453	14.27%	11.14%
27	TECO Energy, Inc.	\$5,544	\$6,050	\$640	\$438	11.54%	7.24%
28	UniSource Energy Corporation	\$2,786	\$3,150	\$287	\$296	10.31%	9.40%
29	Westar Energy, Inc.	\$5,772	\$6,800	\$555	\$849	9.62%	12.49%
30	Wisconsin Energy Corporation	\$9,071	\$11,125	\$817	\$761	9.01%	6.84%
31	Xcel Energy Inc.	\$18,508	\$25,400	\$1,789	\$2,835	9.67%	11.16%
32	Average	\$12,743	\$16,863	\$1,490	\$1,774	11.50%	9.62%
33	Portland General Electric	\$3,858	\$4,800	\$696	\$405	18.03%	8.44%

Source:
The Value Line Investment Survey, February 26, March 26, and May 7, 2010.