



825 NE Multnomah, Suite 2000  
Portland, Oregon 97232

August 31, 2009

***VIA ELECTRONIC FILING  
AND OVERNIGHT DELIVERY***

Oregon Public Utility Commission  
550 Capitol Street NE, Suite 215  
Salem, OR 97301-2551

Attn: Filing Center

**RE: Docket No. UE-210 – Reply Testimony and Exhibits**

Enclosed for filing by PacifiCorp dba Pacific Power (“Company”) are an original and five (5) copies of the Company reply testimony and exhibits. Provided on the enclosed CDs (3) are electronic versions of the testimony, exhibits and workpapers, in their original format when available.

It is respectfully requested that all data requests regarding this matter be addressed to:

By E-mail (preferred): [datarequest@pacificorp.com](mailto:datarequest@pacificorp.com)

By regular mail: Data Request Response Center  
PacifiCorp  
825 NE Multnomah, Suite 300  
Portland, OR 97232

Please direct informal correspondence and questions regarding this filing to Joelle Steward, Regulatory Manager, at (503) 813-5542.

Very truly yours,

Andrea L. Kelly  
Vice President, Regulation

Enclosures

cc. Service List in Docket No. UE-210

## CERTIFICATE OF SERVICE

I hereby certify that I served a true and correct copy of the foregoing document, in Docket UE 210, on the date indicated below by email and/or overnight delivery, addressed to said parties at his or her last-known address(es) indicated below.

### Service List UE-210

Randall Dahlgren (W)  
Rates & Regulatory Affairs  
Portland General Electric  
121 SW Salmon Street, 1WTC1711  
Portland, OR 97204  
[Pge.opuc.filings@pgn.com](mailto:Pge.opuc.filings@pgn.com)

Douglas Tingey (W)  
Asst General Counsel  
Portland General Electric  
121 SW Salmon Street, 1WTC 13  
Portland, OR 97204  
[Doug.tingey@pgn.com](mailto:Doug.tingey@pgn.com)

Gordon Feighner (W) (C)  
Citizens' Utility Board of Oregon  
610 SW Broadway, Suite 308  
Portland, OR 97205  
[gordon@oregoncub.org](mailto:gordon@oregoncub.org)

Robert Jenks (W) (C)  
Citizens' Utility Board of Oregon  
610 SW Broadway, Suite 308  
Portland, OR 97205  
[bob@oregoncub.org](mailto:bob@oregoncub.org)

G. Catriona McCracken (W) (C)  
Citizens' Utility Board of Oregon  
610 SW Broadway, Suite 308  
Portland, OR 97205  
[catriona@oregoncub.org](mailto:catriona@oregoncub.org)

Melinda Davison (C)  
Davison Van Cleve PC  
333 SW Taylor, Suite 400  
Portland, OR 97204  
[mail@dvclaw.com](mailto:mail@dvclaw.com)

Richard Lorenz (W) (C)  
Cable Huston Benedict Haagensen &  
Lloyd LLP  
1001 SW 5<sup>th</sup> Avenue, Suite 2000  
Portland, OR 97204  
[rlorenz@cablehuston.com](mailto:rlorenz@cablehuston.com)

J. Laurence Cable (W) (C)  
Cable Huston Benedict et al  
1001 SW 5<sup>th</sup> Avenue, Suite 2000  
Portland, OR 97204  
[lcable@chbh.com](mailto:lcable@chbh.com)

Deborah Garcia (C)  
Oregon Public Utility Commission  
PO Box 2148  
Salem, OR 97308-2148  
[deborah.garcia@state.or.us](mailto:deborah.garcia@state.or.us)

Jason W. Jones (C)  
Department of Justice  
Regulated Utility & Business Section  
1162 Court St. NE  
Salem, OR 97301-4096  
[Jason.w.jones@state.or.us](mailto:Jason.w.jones@state.or.us)

Katherine A. McDowell (W) (C)  
McDowell & Associates PC  
520 SW Sixty Ave., Suite 830  
Portland, OR 97204  
[Katherine@mcd-law.com](mailto:Katherine@mcd-law.com)

Amie Jamieson (W) (C)  
McDowell & Associates PC  
520 SW Sixty Ave., Suite 830  
Portland, OR 97204  
[amie@mcd-law.com](mailto:amie@mcd-law.com)

Joelle Steward (W) (C)  
Pacific Power & Light  
825 NE Multnomah St., Suite 2000  
Portland, OR 97232  
[Joelle.steward@pacificorp.com](mailto:Joelle.steward@pacificorp.com)

Oregon Dockets (W)  
Pacific Power & Light  
825 NE Multnomah St., Suite 2000  
Portland, OR 97232  
[oregondockets@pacificorp.com](mailto:oregondockets@pacificorp.com)

Greg Addington (W) (C)  
Klamath Water Users Association  
2455 Patterson St., Suite 3  
Klamath Falls, OR 97603  
[greg@cvcwireless.net](mailto:greg@cvcwireless.net)


Michael L. Kurtz  
Boehm Kurtz & Lowry  
36 E. Seventh St., Suite 1510  
Cincinnati, OH 45202  
[mkurtz@bkllawfirm.com](mailto:mkurtz@bkllawfirm.com)

Jordan A. White (W)  
Pacific Power & Light  
825 NE Multnomah St., Suite 1800  
Portland, OR 97232  
[Jordan.white@pacificorp.com](mailto:Jordan.white@pacificorp.com)

Randall J. Falkenberg (C)  
RFI Consulting Inc  
PMB 362  
8343 Roswell Rd  
Sandy Springs, GA 30350  
[consultrfi@aol.com](mailto:consultrfi@aol.com)

Kurt J. Boehm  
Boehm Kurtz & Lowry  
36 E. Seventh St., Suite 1510  
Cincinnati, OH 45202  
[kboehm@bkllawfirm.com](mailto:kboehm@bkllawfirm.com)

DATED: August 31, 2009.

  
\_\_\_\_\_  
Ariel Son  
Coordinator, Administrative Services



Docket No. UE-210  
Exhibit PPL/101  
Witness: Richard P. Reiten

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Reply Testimony of Richard P. Reiten**

**August 2009**

1 **Q. Are you the same Richard Patrick “ Pat” Reiten who previously provided testimony**  
2 **in this docket?**

3 A. Yes, as Exhibit PPL/100.

4 **Purpose**

5 **Q. What is the purpose of your reply testimony?**

6 A. The purpose of my reply testimony is to:

- 7 • Present an overview of the Company’ s revised rate increase request contained  
8 in this reply testimony;
- 9 • Describe how the core recommendations of the Staff of the Oregon Public  
10 Utility Commission (“ Staff” ) are out of step with recent electric utility  
11 industry trends and national, regional and state-wide public policy objectives;
- 12 • Explain that the adjustments on labor expense sponsored by Staff, the  
13 Industrial Customers of the Northwest Utilities (“ ICNU” ) and the Citizens’  
14 Utility Board (“ CUB” ) unreasonably and incorrectly target costs which the  
15 Company has aggressively and carefully managed; and
- 16 • Introduce the Company’ s other witnesses who are providing reply testimony  
17 at this time.

18 **Revised Rate Increase**

19 **Q. What level of *base* rate increase is the Company proposing in its reply**  
20 **testimony?**

21 A. The Company is proposing an overall base rate increase of \$82.7 million, or 8.5  
22 percent, exclusive of net power costs and new tariff riders. This is a \$9.4 million  
23 reduction from the Company’ s initial filing. The reply testimony and exhibits of

1 Company witness Mr. R. Bryce Dalley provide a detailed description of the  
2 elements that the Company incorporated into its reply revenue requirement that  
3 give rise to the reduced request.

4 **Q. What level of net rate increase is the Company proposing in its reply**  
5 **testimony?**

6 A. The Company is proposing a net rate increase of \$87.1 million, or 8.6 percent.  
7 The difference of \$4.4 million is attributable to the Company' s acceptance of  
8 Staff witness Mr. Dustin Ball' s proposal to establish three new tariff riders.  
9 These are discussed by Company witnesses Mr. Dalley and Mr. William G.  
10 Griffith.

#### 11 **Industry Trends and Policy Objectives**

12 **Q. You stated above that Staff' s core recommendations are out of step with**  
13 **recent electric utility industry trends and national, regional and state-wide**  
14 **public policy objectives. To which electric utility industry trends and public**  
15 **policy objectives are you specifically referring?**

16 A. First, across the nation and throughout the western United States, there is a focus  
17 on identifying ways to encourage utilities to invest in transmission infrastructure.

18 As I discuss below, PacifiCorp has been taking a leadership role in this arena in  
19 partnership with regional stakeholders. Second, the policies of the Oregon  
20 Commission have consistently emphasized the need for utilities to provide safe  
21 and reliable service to customers. The adoption of comprehensive service quality  
22 standards and customer guarantee programs are just two examples of how the  
23 Commission has implemented this policy objective. Third, over the past few

1 years, the Federal Energy Regulatory Commission (“ FERC” ) and the North  
2 American Electric Reliability Corporation (“ NERC” ) have adopted and  
3 implemented an extensive set of enhanced reliability requirements for planning  
4 and operating the North American bulk power system. Finally, there is broad  
5 recognition that these public policy objectives cannot be achieved without  
6 financially healthy utilities that have reasonable access to capital markets.  
7 Because of the overarching importance of this final issue, I address it first in the  
8 discussion that follows.

9 **Reasonable Access to Capital Markets**

10 **Q. Please provide some perspective on the challenges PacifiCorp faces with**  
11 **respect to maintaining its access to capital markets at reasonable terms.**

12 A. As discussed in the reply testimony of Company witness Dr. Samuel C. Hadaway,  
13 the utility industry continues to face major challenges related to the financial  
14 markets. As PacifiCorp faces a significant and ongoing need to invest in its  
15 business, its access to capital markets at reasonable terms is critical. This access is  
16 in large part dependent on a fair and supportive regulatory climate.

17 **Q. Is there recent evidence of the importance of a reasonable regulatory**  
18 **environment in maintaining the Company’ s current credit ratings?**

19 A. Yes. On August 12, 2009, Moody’ s updated its methodologies for evaluating the  
20 credit of regulated electric utilities and unregulated utilities and power companies.

21 The following are excerpts from Moody’ s press release describing the  
22 methodological changes:

23 “ Among the rating agency’s four broad rating factors for regulated  
24 electric and gas utilities, Moody’s said regulatory framework will



1 carry a 25% factor weighting, ability to recover costs and earn  
2 returns will carry 25% weight, diversification will carry 10%  
3 weight and overall financial strength, liquidity and key financial  
4 metrics will account for the remaining 40%.”

5 “ For a regulated utility, the predictability and supportiveness of the  
6 regulatory framework in which it operates is a key credit  
7 consideration and the one that differentiates the industry from most  
8 other corporate sectors,” Moody's said. “ For a regulated utility  
9 company, we consider the characteristics of the regulatory  
10 environment in which it operates. These include how developed  
11 the regulatory framework is; its track record for predictability and  
12 stability in terms of decision making; and the strength of the  
13 regulator's authority over utility regulatory issues.”

14 Moody's went on to say the ability to recover costs in a timely  
15 manner is “ perhaps the single most important credit consideration  
16 for regulated utilities as the lack of timely recovery of such costs  
17 has caused financial stress for utilities on several occasions,”  
18 adding that among other considerations, “ it will look at statutory  
19 protections in place to ensure full and timely recovery of incurred  
20 costs.”

21 **Q. Has PacifiCorp recently received similar feedback directly from Standard &**  
22 **Poor’ s?**

23 A. Yes. Standard & Poor’ s made the same point about regulatory support in their  
24 April 2009 credit rating report on PacifiCorp stating:

25 “ Despite recent rate relief in nearly all states PacifiCorp serves,  
26 regulatory lag continues to allow only modest improvement in the  
27 company's financial profile; its returns on equity (ROE) remain  
28 under authorized levels and while leverage has improved since it  
29 was acquired by MidAmerican Energy Holdings Co. (MEHC) in  
30 2006, cash flow metrics continue to be weak.” They explain  
31 further that “ Supportive rate case outcomes continue to be key to  
32 maintaining and improving upon the company's financial  
33 performance.”

34 **Q. Do you believe that the recommendations of Commission Staff are evidence**  
35 **of a predictable and supportive regulatory framework?**

36 A. No, quite the opposite is true.

1 **Q. Please explain.**

2 A. There are two categories of Staff recommendations that account for \$61.5 million,  
3 or 75 percent of the proposed disallowances in the Staff’ s case, that are  
4 inconsistent with a supportive and predictable regulatory framework. First, Staff  
5 recommends a \$42.6 million reduction to the Company’ s revenue requirement  
6 based on a recommended return on equity (“ ROE” ) that is outside the bounds of  
7 reason. As discussed in detail in Dr. Hadaway’ s testimony, Staff’ s recommended  
8 9.4 percent ROE is 50 basis points lower than the lowest integrated electric ROE  
9 authorized across the nation in the last five years. In addition, Staff’ s  
10 recommended 9.4 percent ROE is 60 basis points below the recommendation of  
11 the ROE witness for the consumer advocate groups in this proceeding,  
12 notwithstanding the fact that Staff’ s role in Commission-litigated proceedings is  
13 to make recommendations that balance the interest of customers and shareholders.

14 Second, as discussed below, Staff recommends an aggregate \$18.9 million  
15 reduction to the Company’ s revenue requirement related to reductions to the  
16 Company’ s rate base. If the Commission were to adopt such a drastic change  
17 from past practices, it would signal to the Company and the investment  
18 community that recovery of investment in Oregon is unpredictable and unlikely to  
19 provide for a timely recovery of costs.

20 **Q. Have the rating agencies previously addressed the importance of regulatory**  
21 **support in Oregon for the recovery of the Company’ s capital investment?**

22 A. Yes. Moody’ s October 2008 PacifiCorp credit opinion stated:

23 “ The company received somewhat less favorable regulatory treatment in  
24 its last general rate case. In September 2006, PacifiCorp was authorized to

1 increase revenues by \$43 million, \$33 million in base rates and \$10  
2 million for increased power costs, which was less than half of the  
3 approximately \$112 million increase originally requested in February  
4 2006. The stable outlook incorporates Moody's expectation that  
5 PacifiCorp will continue to receive reasonable regulatory treatment for the  
6 recovery of its higher capital expenditures, and that the funding  
7 requirements will be financed in a manner consistent with management's  
8 commitment to maintain a healthy financial profile. The ratings could be  
9 adjusted downward if PacifiCorp's planned capital expenditures are  
10 funded in a manner inconsistent with its current financial profile, or if  
11 there were to be adverse regulatory rulings on current and future  
12 distribution rate cases such that we would anticipate a sustained  
13 deterioration in financial metrics..."

14 **Investment in Transmission Infrastructure**

15 **Q. In your role as President of Pacific Power are you also responsible for**  
16 **PacifiCorp' s six-state transmission business?**

17 A. Yes. PacifiCorp owns and operates one of the largest privately held transmission  
18 systems in the U.S., extending nearly 16,000 pole miles across ten states in the  
19 western U.S. PacifiCorp's transmission business operates independently with a  
20 goal to provide efficient, low cost and reliable transmission services to all users of  
21 the system. As the Commission is aware, significant additions to the Company' s  
22 electric transmission system will be needed in the next 10 years. The Company  
23 has projects underway to address those needs, specifically the Energy Gateway  
24 projects that will add approximately 2000 miles of new transmission lines across  
25 the West with segments scheduled to come online beginning in late 2010. The  
26 Company is also active in regional transmission planning processes to ensure that  
27 its actions are compatible with the needs of the region as a whole.

1 **Q. Has the Commission encouraged PacifiCorp’ s efforts to include transmission**  
2 **investment in its resource planning?**

3 A. Yes. The Commission’ s Integrated Resource Plan (“ IRP” ) Guidelines and recent  
4 IRP orders have directed utilities to consider new transmission investment to  
5 enhance reliability and increase market access. In Order No. 08-232 on the  
6 Company’ s 2007 IRP, the Commission acknowledged the action items around  
7 new transmission investment, noting enhancements in the Company’ s  
8 transmission analysis and planning. The Company has received similar, positive  
9 feedback regarding its efforts in the Northern Tier Transmission Group through  
10 periodic updates and informal discussions with key stakeholders.

11 **Q. Do certain of Staff’ s recommendations in this proceeding seem out of step**  
12 **with your understanding of the public policy objectives related to investment**  
13 **in transmission infrastructure?**

14 A. Yes. There are two types of adjustments proposed by Staff that, if adopted by this  
15 Commission, would undermine the Company’ s confidence to proceed with  
16 transmission infrastructure investment.

17 First, Staff makes a “ judgment call” to disallow \$24 million in investment  
18 in the Three Mile Knoll transmission-level substation based on an informal e-mail  
19 exchange between a member of Commission Staff and an employee at the  
20 Bonneville Power Administration (“ BPA” ). It is particularly troublesome that  
21 Staff would rely so heavily on this e-mail exchange given that (1) the BPA  
22 employee noted that the estimates were “ ball park rough” numbers for recent  
23 substation projects, (2) the voltage levels for the BPA projects (500/230kv) are

1 completely different than the voltage levels at the Three Mile Knoll substation  
2 (345/138kv). In addition, Staff gave no consideration to the specifics of the  
3 substation’ s physical and geographic location, functional and interconnection  
4 requirements, design and overall reliability contribution to the area and the  
5 interconnected transmission grid.

6 Second, Staff proposes to disallow approximately \$23 million in  
7 investment related to two recently completed upgrades to the transmission system  
8 because it questions the connection between that system investment and Oregon  
9 customers. The recommendation is inconsistent with the provisions of the  
10 Revised Protocol allocation methodology that was adopted by this Commission in  
11 Order No. 05-021 in Docket UM 1050. It is also inconsistent with the  
12 Commission IRP guidelines (Guideline 10) which require multi-state utilities “ to  
13 plan their generation and transmission systems on an integrated system basis.”  
14 Order No. 08-232.

15 System-wide allocation of transmission investments among all six states  
16 recognizes that customers benefit from the diverse nature of the integrated  
17 system. Departure from the provisions of the Revised Protocol and the IRP  
18 Guidelines with respect to transmission investment would create a significant and  
19 unnecessary uncertainty for PacifiCorp and could impact future investment  
20 decisions.

21 Company witness Mr. Kenneth T. Houston addresses the specifics of  
22 Staff’ s adjustments in his reply testimony.

1 **Safe and Reliable Service**

2 **Q. You noted earlier that this Commission places great emphasis on the**  
3 **provision of safe and reliable service at a reasonable price. Is this also a**  
4 **priority for PacifiCorp?**

5 A. Yes. At Pacific Power, we know that our customers expect reliability,  
6 dependability and exceptional service. Delivering safe and reliable power at  
7 reasonable prices is a responsibility I take seriously. As described in Company  
8 witness Mr. Richard A. Vail' s reply testimony, the Company undertakes a  
9 systematic and rigorous capital budgeting exercise each year to ensure that the  
10 Company' s distribution system in Oregon is able to reliably deliver electricity in a  
11 manner that meets our customers' needs. In addition, the Company is proud of its  
12 ability to consistently meet its Customer Service Commitments, which consist of  
13 seven Customer Guarantees and six Performance Standards.

14 **Q. Would certain of Staff' s recommendations undermine PacifiCorp' s ability to**  
15 **provide safe and reliable service consistent with the Company' s Customer**  
16 **Service Commitments?**

17 A. Yes. Staff proposes two types of adjustments that, if adopted by this  
18 Commission, would undermine the Company' s ability to invest in the system to  
19 meet customers' expectations of reliability, dependability and exceptional service.

20 First, Staff proposes to disallow nearly \$270 million of Company-wide  
21 system investment. This is composed of:

22 (1) a proposed \$131 million disallowance that removes investment that is  
23 scheduled to be placed in service after February 2, 2010,

- 1                   notwithstanding the fact that this date is the beginning of the rate  
2                   effective period, not the end,
- 3                   (2) a proposed \$135 million disallowance that removes 50 percent of all  
4                   investment scheduled to be placed in service between June 30, 2008  
5                   and January 31, 2010, if the in-service date occurs on a monthly basis  
6                   or at various points during the period, and
- 7                   (3) a proposed \$1.5 million disallowance related to two items that Staff’ s  
8                   review determined were inappropriate for inclusion in rate base in  
9                   Oregon.

10               As discussed in the reply testimony of Mr. Dalley, Staff’ s proposals are without  
11               precedent, are based on a flawed interpretation of the Commission’ s policy  
12               related to investment in future test periods, and would lead to an overall Oregon  
13               net plant in service for calendar year 2010 at a level less than the June 2009 actual  
14               level. If the Commission were to adopt this new approach to ratemaking, the  
15               Company would not have a reasonable opportunity to recover its costs even if it  
16               immediately discontinued making capital investments in the system.

17               Second, Staff proposes to disallow approximately \$1.3 million associated  
18               with write-offs primarily related to providing estimates for new supply as part of  
19               the Company’ s fulfillment of one of its Customer Guarantees. PacifiCorp’ s  
20               Customer Guarantee No. 4 requires that, “ [a]n estimate for new supply will be  
21               supplied to the Applicant or Customer within 15 working days after the initial  
22               meeting and all necessary information is provided and any required payment is  
23               made.” If PacifiCorp fails to meet this requirement, a qualifying customer’ s

1 account is automatically credited \$50. Adoption of this recommendation by the  
2 Commission would either deny the Company the ability to recover a reasonable  
3 cost of doing business or require the Company to change the way it approaches  
4 this aspect of its business to the detriment of customer service.

5 **Enhanced Reliability Requirements**

6 **Q. What new federal standards related to reliability of the bulk power system**  
7 **have been adopted over the past few years?**

8 A. As I mentioned earlier, over the past few years, the FERC, the NERC and the  
9 Western Electricity Coordinating Council (“ WECC” ) have adopted and  
10 implemented an extensive set of enhanced reliability requirements for planning  
11 and operating the North American bulk power system. Since March 2007, the  
12 FERC has approved 88 reliability standards developed by the NERC. The FERC  
13 has also approved 8 regional reliability standards proposed by the WECC. These  
14 standards are comprised of thousands of individual requirements and sub-  
15 requirements with which the Company must comply or face sanctions for  
16 violations of up to \$1 million per day. In January 2008, the FERC approved eight  
17 additional cyber security and critical infrastructure protection standards proposed  
18 by the NERC. The additional standards became mandatory and enforceable in  
19 April 2008. As of August 2009, 134 standards are currently under development,  
20 and 150 standards are planned by 2013.

21 To comply with the standards, the Company has developed and is required  
22 to maintain a robust compliance program to ensure that these federal requirements  
23 are met. As part of this compliance program, the Company has incurred both



1 labor and non-labor costs. Labor costs include salary and benefits for 11 new  
2 full-time employees necessary to provide critical support to the compliance  
3 program including training the Company' s employees on the Standards of  
4 Conduct, management of the new compliance software, testing and maintenance  
5 of the new surveillance equipment, and development and administration of an  
6 enhanced security program for over 40 substations, 10 generation facilities, and 4  
7 control centers. Non-labor costs include NERC and Critical Infrastructure &  
8 Protection Systems (CIPS) compliance consultant fees, maintenance of the  
9 electronic security perimeter and video surveillance equipment, increased training  
10 and development costs, and audit fees required by FERC.

11 **Q. Are you responsible for PacifiCorp' s overall compliance with these reliability**  
12 **standards?**

13 A. Yes. The compliance functions within PacifiCorp report directly to me.

14 **Q. Does Commission Staff propose to include in PacifiCorp' s rates adequate**  
15 **funding to implement these federal reliability standards?**

16 A. No. Staff proposes a reduction to the Company' s revenue requirement of \$1.4  
17 million based on a conclusion that the level of expense included in the base period  
18 is sufficient to allow the Company to recover the additional costs associated with  
19 the mandatory standards. As discussed by Mr. Dalley, the Company incurred  
20 approximately \$3.4 million of compliance costs for calendar year 2008. Since I  
21 do not expect the level of activity in this area to decline in the future, the cost of  
22 compliance activities in this case is already, if anything, understated.

1 **Labor Expense**

2 **Q. Please provide the background against which the Commission should review**  
3 **the parties' adjustments to the Company' s labor expense.**

4 A. As explained in the Company' s direct filing, through aggressive cost  
5 management, the Company has managed to keep its total wage and benefit  
6 expense in this case for the 2010 test period within 1 percent of that included in  
7 its previous rate case, UE 179, which utilized a 2007 test period.

8 **Q. Have the parties proposed adjustments to the Company' s labor expense**  
9 **which would result in even lower wage and benefit expenses than those**  
10 **included in the UE 179 filing?**

11 A. Yes. The joint ICNU and CUB witness has proposed adjustments in excess of  
12 \$55 million challenging the Company' s employee level and the allocation of labor  
13 costs to Oregon. These adjustments reduce the Company' s wage and benefit  
14 expenses to levels well below those proposed in UE 179. Indeed, the adjustments  
15 proposed jointly by ICNU and CUB would result in labor expenses similar to  
16 those experienced twenty years ago. As explained by Mr. Dalley, these  
17 adjustments are based on incorrect interpretations of Company data requests and  
18 inaccurate assumptions around the Company' s projected labor costs for 2010.

19 **Q. Have the parties also proposed adjustments for incentive compensation?**

20 A. Yes. Staff, and ICNU-CUB have proposed similar adjustments to disallow  
21 incentive compensation. The adjustments propose to apply " standard"  
22 Commission policy on recovery of incentive compensation, without consideration  
23 of all aspects of that policy and without review of whether application of that

1 policy (as defined by the parties) makes sense in this case, given the  
2 aggressiveness of the Company’ s overall approach to controlling its labor costs.  
3 Company witness Mr. Erich D. Wilson provides the Company’ s response to this  
4 issue.

5 **Introduction of Witnesses**

6 **Q. Please list the Company witnesses and provide a brief description of their**  
7 **testimony.**

8 A. **Dr. Samuel C. Hadaway**, Principal, FINANCO, Inc. testifies concerning the  
9 Company’ s return on equity. He replies to the recommendations of Staff witness  
10 Mr. Steve Storm and the joint ICNU-CUB witness Mr. Michael Gorman. Dr.  
11 Hadaway also presents evidence to further support his recommended 11.0 percent  
12 ROE.

13 **Bruce N. Williams**, Vice President and Treasurer, updates the calculation of  
14 PacifiCorp’ s cost of debt and capital structure. He also responds to the  
15 recommendations of Staff witness Mr. Jorge Ordonez and the joint ICNU-CUB  
16 witness Mr. Gorman.

17 **Gregory N. Duvall**, Director, Long Range Planning and Net Power Costs,  
18 responds to the testimony of Staff witness Mr. Robert Clark with respect to  
19 forecasts of state-specific peak loads. He also responds to the testimony of Staff  
20 witness Ms. Kelcey Brown, ICNU witness Mr. Randall Falkenberg and Fred  
21 Meyer Stores witness Mr. Kevin Higgins related to the Transition Adjustment  
22 Mechanism (“ TAM” ).

23 **R. Bryce Dalley**, Manager, Revenue Requirements, presents the Company’ s reply

1 testimony revenue requirement based on the calendar year 2010 test period. He  
2 also responds to the adjustments of numerous Staff witnesses and the joint ICNU-  
3 CUB witness Ms. Ellen Blumenthal.

4 **Richard A. Vail**, Director, Asset Management, presents the reply testimony in  
5 response to the disallowances proposed by Staff witness Ms. Deborah Garcia  
6 related to distribution investment.

7 **Kenneth T. Houston**, Director, Transmission, presents the Company' s reply  
8 testimony in response to Staff witness Mr. Ed Durrenberger' s proposed  
9 disallowances of transmission investments.

10 **Erich D. Wilson**, Director, Human Resources, presents the reply testimony in  
11 response to Staff witness Ms. Lisa Gorsuch and the joint ICNU-CUB witness Ms.  
12 Blumenthal on the adjustment to employee incentives. He also responds to  
13 various other adjustments related to employee benefits.

14 **Norm Ross**, Director, Tax Department, presents the Company' s reply testimony  
15 in response to Staff witness Mr. Dustin Ball related to property taxes.

16 **Craig Paice**, Regulatory Consultant, Cost of Service and Pricing, presents the  
17 Company' s reply testimony cost of service study. He also responds to the  
18 testimony of Staff witness Dr. George Compton, ICNU witness Donald  
19 Schoenbeck, CUB witness Mr. Bob Jenks and Klamath Water Users Association  
20 (" KWUA" ) witness Mr. Gary Saleba on cost of service issues.

21 **William R. Griffith**, Director, Pricing, Cost of Service and Regulatory  
22 Operations, presents the Company' s reply testimony on proposed rate spread and  
23 changes in price design for the affected rate schedules. He also responds to the

1 testimony of Staff witness Dr. Compton, Fred Meyer Stores witness Mr. Higgins  
2 and KWUA witness Mr. Saleba on pricing issues.

3 **Q. Does this conclude your testimony?**

4 A. Yes.



Docket No. UE-210  
Exhibit PPL/214  
Witness: Samuel C. Hadaway

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Reply Testimony of Samuel C. Hadaway**

**August 2009**

1 **Q. Please state your name and business address.**

2 A. My name is Samuel C. Hadaway. My business address is FINANCO, Inc., 3520  
3 Executive Center Drive, Austin, Texas 78731.

4 **Q. Are you the same Samuel C. Hadaway who previously filed direct testimony**  
5 **on behalf of PacifiCorp in this case?**

6 A. Yes, I am.

7 **Purpose and Summary of Testimony**

8 **Q. What is the purpose of your reply testimony?**

9 A. The purpose of my reply testimony is to respond to the rate of return on equity  
10 (“ ROE” ) recommendations offered by Public Utility Commission of Oregon Staff  
11 (“ Staff” ) witness Mr. Steve Storm and the joint Industrial Customers of Northwest  
12 Utilities and Citizens’ Utility Board of Oregon (“ ICNU-CUB” ) witness Mr.  
13 Michael P. Gorman. In my analysis, I will respond to the parties’ rate of return  
14 recommendations and demonstrate that their recommendations are not consistent  
15 with current market conditions. I will also update my analysis for current market  
16 costs and conditions.

17 **Q. What are the parties’ ROE recommendations?**

18 A. Staff witness Storm recommends an ROE of 9.4 percent. ICNU-CUB witness  
19 Gorman recommends an ROE of 10.0 percent. I continue to support an ROE of  
20 11.0 percent. My updated discounted cash flow (“ DCF” ) analysis indicates an  
21 ROE range of 11.2 percent to 11.6 percent, as compared to the DCF range in my  
22 April 2, 2009 direct testimony of 11.0 percent to 11.6 percent. My updated risk  
23 premium analysis indicates a range of 10.62 percent to 11.39 percent, as



1 compared to my initial risk premium range of 10.73 percent to 11.03 percent. My  
2 updated results show that my initial ROE recommendation of 11.0 percent is  
3 reasonable and that the other parties' recommendations are well below  
4 PacifiCorp' s cost of equity capital.

5 **Q. Please summarize your general assessment of the other parties' ROE analysis**  
6 **and recommendations.**

7 A. Mr. Storm' s ROE recommendation is far below the reasonable range. I will show  
8 that his 9.4 percent ROE recommendation is 50 basis points (0.5 percent) lower  
9 than any ROE that has been authorized for any integrated electric utility in the  
10 United States in the last five years. While I will also demonstrate various  
11 technical flaws in Mr. Storm' s analysis; on its face, his ROE recommendation is  
12 unreasonably low.

13 From a technical perspective, Mr. Storm' s analysis is also dominated by  
14 consistently low assumptions, incorrect model inputs, and unexplained  
15 adjustments within his model. I will demonstrate that, but for his incorrect  
16 technical inputs and adjustments, his model would have supported an ROE range  
17 of 10.2 percent to 10.3 percent. Furthermore, with a more reasonable assumption  
18 about the DCF growth rate, his analysis supports an ROE of over 11 percent.

19 I will show that Mr. Gorman' s 10.0 percent ROE recommendation is  
20 about 50 basis points lower than the average allowed ROE for electric utilities  
21 during 2008 and during the second quarter of 2009. As such, given the market  
22 turmoil that has occurred during the past year, his recommendation is below the  
23 current cost of equity capital for PacifiCorp. I demonstrate that with more

1 reasonable input assumptions, his analysis would have supported a significantly  
2 higher ROE.

3 **Overview of Current Capital Markets**

4 **Q. Why do you say that the other parties' ROE recommendations are not**  
5 **consistent with current capital market conditions?**

6 A. The other parties seem to hold a mistaken belief that utility capital costs have  
7 decreased, not increased, over the past several months. This contention is simply  
8 wrong. While governmental policies and “flight to safety” issues have driven  
9 down short-term interest rates for banks and rates on U.S. Treasury securities, the  
10 cost of equity for utilities has not declined over the past year.<sup>1</sup> I will show that  
11 PacifiCorp' s required ROE has increased and that the other parties have not  
12 reasonably included current capital market conditions in their recommendations.

13 **Q. In your direct testimony, you provided capital market data through**  
14 **February 2009, which demonstrated wider corporate interest rate spreads**  
15 **relative to treasury bond interest rates and increased corporate borrowing**  
16 **costs. What do the most recent data show?**

17 A. The month-by-month interest rate data updated through July 2009 are presented in  
18 Exhibit PPL/215, page 1. Those data are summarized below in Table 1.

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<sup>1</sup> The term “flight to safety” refers to the tendency for investors, during periods of market turbulence, to remove money from more risky investments, such as corporate bonds and stocks, and to put the money into government securities such as Treasury bills and bonds. The effect causes a reduction in the supply of funds to corporations and an increase in funds invested in government securities. The result is wider “spreads” between corporate bond and government bond interest rates and higher capital costs for corporations.

**Table 1**  
**Long-Term Interest Rate Trends**

<b>Month</b>	<b>Single-A Utility Rate</b>	<b>30-Year Treasury Rate</b>	<b>Single-A Utility Spread</b>
Jan-07	5.96	4.85	1.11
Feb-07	5.90	4.82	1.08
Mar-07	5.85	4.72	1.13
Apr-07	5.97	4.87	1.10
May-07	5.99	4.90	1.09
Jun-07	6.30	5.20	1.10
Jul-07	6.25	5.11	1.14
Aug-07	6.24	4.93	1.31
Sep-07	6.18	4.79	1.39
Oct-07	6.11	4.77	1.34
Nov-07	5.97	4.52	1.45
Dec-07	6.16	4.53	1.63
Jan-08	6.02	4.33	1.69
Feb-08	6.21	4.52	1.69
Mar-08	6.21	4.39	1.82
Apr-08	6.29	4.44	1.85
May-08	6.28	4.60	1.68
Jun-08	6.38	4.69	1.69
Jul-08	6.40	4.57	1.83
Aug-08	6.37	4.50	1.87
Sep-08	6.49	4.27	2.22
Oct-08	7.56	4.17	3.39
Nov-08	7.60	4.00	3.60
Dec-08	6.52	2.87	3.65
Jan-09	6.39	3.13	3.26
Feb-09	6.30	3.59	2.71
Mar-09	6.42	3.64	2.78
Apr-09	6.48	3.76	2.72
May-09	6.49	4.23	2.26
Jun-09	6.20	4.52	1.68
Jul-09	5.97	4.41	1.56
<b>3-Mo Avg</b>	<b>6.22</b>	<b>4.39</b>	<b>1.83</b>
<b>12-Mo Avg</b>	<b>6.57</b>	<b>3.92</b>	<b>2.64</b>

Sources: Mergent Bond Record (Utility Rates); www.federalreserve.gov (Treasury Rates).

Three month average is for May 2009 through July 2009.

1 The data in Table 1 vividly illustrate the market turmoil that has occurred.  
2 Although utility interest rates have come down from the extreme peaks reached in  
3 October and November 2008, they remain at or above the rates that existed in  
4 2007 before the subprime lending crisis began. The Federal Reserve' s efforts to  
5 reduce short-term borrowing cost for banks (the Fed Funds rate) and lower rates  
6 on U.S. Treasury bonds have not had the same effect for corporate borrowers. In  
7 fact, increased risk aversion and market illiquidity have resulted in continuing  
8 difficulties for many corporations. While the effects of market turbulence may  
9 not be easily captured in financial models for estimating the rate of return, the  
10 market' s turbulence and continuing elevated risk aversion should be considered  
11 explicitly in estimates of the cost of equity capital.

12 **Q. What do forecasts for the economy and interest rates show for the coming**  
13 **year?**

14 A. Exhibit PPL/215, page 2, provides Standard & Poor' s ( " S&P' s" ) most recent  
15 economic forecast from its *Trends & Projections* publication for July 2009. S&P  
16 forecasts significant economic contraction through the first three quarters of 2009.  
17 For all of 2009, S&P forecasts that real GDP will decline by 3.0 percent. S&P  
18 expects real GDP growth to become positive during the 4<sup>th</sup> Quarter of 2009 and  
19 for GDP to increase in real terms (before inflation) during 2010 by 1.2 percent.

20 S&P also forecasts that long-term government and high grade corporate  
21 interest rates will rise significantly from recent levels. The summary interest rate  
22 data are presented in the following table:

**Table 2**  
**Standard & Poor' s Interest Rate Forecast**

	July 2009 Average	Average 2009 Est.	Average 2010 Est.
Treasury Bills	0.2%	0.2%	0.6%
10-Yr. T-Bonds	3.6%	3.5%	4.9%
30-Yr. T-Bonds	4.4%	4.3%	5.7%
Aaa Corporate Bonds	5.4%	5.7%	6.7%

Sources: [www.federalreserve.gov](http://www.federalreserve.gov), (Current Rates). Standard & Poor' s *Trends & Projections*, July 2009, page 8 (Projected Rates).

1 Table 2 updates the data found in Table 3 in my direct testimony. The data in  
2 Table 2 show that long-term Treasury interest rates during 2010 are projected to  
3 increase over 100 basis points from current levels. The rate on Aaa corporate  
4 bonds is also expected to increase by about the same amount. Although in the  
5 recently turbulent market environment it has been difficult to project rates for  
6 lower rated securities, these market data offer important perspective for judging  
7 the cost of capital in the present case.

8 **Q. What are the implications of higher corporate borrowing costs for**  
9 **PacifiCorp' s cost of equity?**

10 A. There are several important implications. First, since equity must compete with  
11 debt for investor dollars, and because equity is riskier than debt, an increase in  
12 corporate borrowing costs will also cause an increase in the cost of equity. In  
13 addition, since corporate bond yields are a direct input to the risk premium  
14 method of estimating the cost of equity, higher corporate yields should result in  
15 higher risk premium-based estimates of the cost of equity. The other parties'  
16 failure to account for these factors cause their ROE estimates to understate  
17 PacifiCorp' s cost of equity.

1 **Q. How do the other parties’ ROE recommendations compare to the rates of**  
2 **return authorized by other state utility commissions around the country?**

3 A. They are lower. Table 3 below shows the average rates of return for each quarter  
4 over the past five years. It updates Table 4 in my direct testimony to include the  
5 first two quarters of 2009.

**Table 3**  
**Authorized Electric Utility Equity Returns**

	2005	2006	2007	2008	2009
1 <sup>st</sup> Quarter	10.51%	10.38%	10.27%	10.45%	10.29%
2 <sup>nd</sup> Quarter	10.05%	10.68%	10.27%	10.57%	10.52%
3 <sup>rd</sup> Quarter	10.84%	10.06%	10.02%	10.47%	
4 <sup>th</sup> Quarter	10.75%	10.39%	10.56%	10.33%	
Full Year Average	10.54%	10.36%	10.36%	10.46%	10.41%
Average Utility Debt Cost	5.67%	6.08%	6.11%	6.65%	6.77%
Indicated Average Risk Premium	4.87%	4.28%	4.25%	3.81%	3.64%

Source: *Regulatory Focus*, Regulatory Research Associates, Inc., Major Rate Case Decisions, July 2, 2009. Utility debt costs are the “average” public utility bond yields as reported by Moody’ s.

6 These data show that the other parties’ ROE recommendations are 50 to 100 basis  
7 points lower than the average authorized rates of return. Since 2005, the equity  
8 risk premiums in Table 3 (the difference between allowed equity returns and  
9 contemporaneous utility interest rates) have ranged from 3.64 percent to 4.87  
10 percent. At the low end of this risk premium range, based on average single-A  
11 utility bond yields for the three months ended in July, the indicated cost of equity  
12 is approximately 10.0 percent (6.22% single-A bond yield + 3.64% risk premium  
13 = 9.86%). At the upper end of this risk premium range, with an allowed equity  
14 risk premium of 4.87 percent, the indicated cost of equity is approximately 11.0

1           percent (6.22% current single-A bond yield + 4.87% risk premium = 11.09%).<sup>2</sup>  
2           These data provide useful perspective for judging the adequacy of the Staff and  
3           ICNU-CUB ROE recommendations. This simplified equity risk premium  
4           analysis shows that the others parties' recommendations fall well below  
5           PacifiCorp' s cost of equity capital.

6           **Reply to Staff witness Mr. Steve Storm**

7           **Q.     How does Mr. Storm' s 9.4 percent ROE recommendation compare to**  
8           **authorized ROEs for other integrated electric utility companies around the**  
9           **country?**

10          A.     Mr. Storm' s 9.4 percent recommendation is far below the quarterly averages  
11          shown in Table 3 above. It is, in fact, 50 basis points (0.5 percent) lower than the  
12          lowest ROE that has been authorized for any integrated electric utility in the  
13          United States in the past five years. In Exhibit PPL/216, I have reproduced the  
14          case-by-case data as reported by Regulatory Research Associates (“ RRA” ) for the  
15          last five years.<sup>3</sup> As shown in Table 3 above, the quarterly ROE averages of these  
16          data have generally ranged between 10 percent and 10.5 percent, with the most  
17          recent 2<sup>nd</sup> Quarter of 2009 at 10.52 percent. Shown on page 5 of Exhibit  
18          PPL/216, the lowest authorized ROE for any integrated electric utility in the last

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<sup>2</sup> The utility bond yields are the average rates for the three-months ended July 2009 as shown previously in Table 1.

<sup>3</sup> The RRA data include cases for both integrated electric utilities, like PacifiCorp, and “ electric delivery” companies that provide only transmission and distribution (“ T&D” ) services. T&D companies are in states that have deregulated generation and these companies have been required to divest themselves of any generation assets that they might have held. Assuming the regulatory authorities in these jurisdictions allow the automatic recovery of generation expenses, it can be argued that the T&D companies are not exposed to power supply risks or the risk of generation ownership. These companies may be considered by the rating agencies and others to have lower operating risks (but they might not have lower financial risks), and their authorized ROEs generally have been lower than those for integrated electrics. In Exhibit PPL/216, the footnotes at the right of each case indicate which ones are for T&D only companies.

1 five years was 9.9 percent for Entergy Arkansas on June 15, 2007. These data  
2 show that Mr. Storm' s current 9.4 percent ROE recommendation for PacifiCorp is  
3 far below the reasonable range.

4 **Q. Are you recommending that the Commission should use other regulators'**  
5 **authorized returns as an independent estimate of PacifiCorp' s cost of equity?**

6 A. No. I recognize the circularity argument that is often made about using other  
7 regulators' authorized returns. I agree that using such returns as a sole or  
8 independent estimate would not be appropriate. However, to ignore such data for  
9 purposes of comparison or to put a given recommendation into perspective would  
10 be equally inappropriate. These data show that Mr. Storm' s ROE  
11 recommendation is far below any reasonable estimate of PacifiCorp' s cost of  
12 equity capital.

13 **Q. Has the Commission addressed the use of other regulators' authorized**  
14 **returns in its ROE deliberations?**

15 A. Yes. In a prior PacifiCorp case, Docket UE 116, the Commission addressed this  
16 issue and came to the following conclusion:

17 We adhere to our prior determination that, while other ROE  
18 determinations may provide confirmation of a decision, they  
19 should not be used as an independent method on which to base an  
20 award.

21 Accordingly, we will continue to review ROEs authorized in other  
22 jurisdictions to help gauge the reasonableness of the cost of equity  
23 estimates derived from independent methodologies. We will not,  
24 however, rely on such decisions as the basis for an ROE award for  
25 a utility. (Order No. 01-787 at 32.)



1 **Q. Can you point to other regulatory commissions that use the RRA data as a**  
2 **benchmark for evaluating ROE recommendations?**

3 A. Yes. The Missouri Public Service Commission (“ MPSC” ) routinely compares  
4 witnesses recommendations to the RRA averages. In a recent Kansas City Power  
5 & Light case (Case No. ER-2006-0314, December 21, 2006), that commission  
6 offered an approach that is similar to the “ gauge of reasonableness” standard  
7 noted above:

8           Again, while the Commission will not “ unthinkingly mirror the  
9           national average” in this case, the Commission finds that it is  
10          simply common sense to use national average ROEs as a reference  
11          point because that gives the Commission insight about the capital  
12          market in which KCPL must compete for equity dollars. (MPSC  
13          Final Order at 27.)

14 **Q. What is the technical basis for Mr. Storm’ s 9.4 percent ROE**  
15 **recommendation?**

16 A. Mr. Storm discusses his analysis on pages 9 through 29 of his testimony. While he  
17 did not provide an exhibit with his testimony that shows how his 9.4 percent ROE  
18 was calculated, he did provide the supporting computer model in his workpapers.  
19 Also, a 9.4 percent “ Adjusted ROE” appears in his Table 5 on page 29 of his  
20 testimony. He says that his recommendation is based on a three-stage DCF model  
21 (Staff/800, Storm/12) and the row in Table 5 (Staff/800, Storm/29) that  
22 corresponds to 9.4 percent ROE indicates that the following model inputs were  
23 used:

- 24           1) a long-term inflation rate of 2.3 percent;  
25           2) a long-term real GDP growth rate of 2.8 percent;

1           3) a 5 percent downward adjustment applied to GDP growth; and  
2           4) an 8 basis point downward adjustment to ROE to account for a lower equity  
3           ratio in his comparable group.

4           His analysis, based on items 1-3 above, produces an ROE estimate of 9.62  
5           percent, which he adjusts downward with item 4 to 9.44 percent, which he then  
6           rounds to 9.4 percent.

7   **Q.   Do you agree with Mr. Storm’ s model inputs and the adjustments shown in**  
8   **items 1-4 above?**

9   A.   No. All four of Mr. Storm’ s primary model inputs cause his ROE estimate to be  
10       low. His estimate of long-term inflation (item 1) is almost 1/3 lower than the  
11       actual long-term inflation rate in the United States.<sup>4</sup> His estimate of real GDP  
12       growth (item 2) is also lower than the actual long-term real GDP growth rate.<sup>5</sup>  
13       Mr. Storm uses a combination of these two inputs to establish a “ pre-adjustment”  
14       long-run nominal GDP growth rate of 5.16 percent (Staff/800, Storm/21, footnote  
15       60). That GDP growth rate is over 100 basis points lower than the long-run GDP  
16       growth rate I forecasted (Exhibit PPL/204). Such a low GDP growth rate  
17       foundation in the DCF model contributes to a correspondingly low estimate of  
18       ROE.

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<sup>4</sup>In Exhibit PPL/204, I demonstrated that the average inflation rate in the United States for the past 60 years as measured by the GDP Price Deflator and the Consumer Price Index has been 3.4 percent and 3.7 percent, respectively. For consistency with lower inflation in the more recent years of my forecast, I used a long-term inflation rate of 3.2 percent.

<sup>5</sup>From Exhibit PPL/204, the 60-year average growth rate for real GDP is approximately 3.4 percent per year.

1 **Q. Do you agree with Mr. Storm’ s further downward adjustment to his GDP**  
2 **growth rate (item 3) based on his belief that utilities are a below average**  
3 **growth industry?**

4 A. No. I disagree with Mr. Storm’ s interpretation of the industry lifecycle concept  
5 (Staff/800, Storm/23). While it is true that electric utilities are not “ high growth”  
6 companies, neither should they be characterized as “ below average” growth  
7 companies, relative to GDP growth. To demonstrate this point, I have prepared in  
8 Exhibit PPL/217 a compilation of analysts’ forecasted growth rates for the  
9 companies that comprise the S&P 500 Stock Index. The S&P 500 is widely  
10 recognized as representing the overall stock market average for the United States.  
11 The data in Exhibit PPL/217 show that the average company in the S&P 500 is  
12 expected by professional security analysts to grow its earnings at 10.54 percent  
13 per year. Therefore, while it is true that electric utilities represent a mature  
14 industry and that their 5-year analyst expected growth rates are lower than the  
15 average company in the S&P 500, it is not true that utilities, in the long-run,  
16 should be expected to grow more slowly than nominal GDP. That assumption  
17 implies that utilities will become a smaller part of the economy in the future (and  
18 other industries will become a larger part) and there is no reason to conclude that.  
19 While energy efficiency may lower electric use per unit of GDP, the future use of  
20 electric vehicles may very well increase that use per unit of GDP. For these  
21 reasons, Mr. Storm’ s further downward adjustment to his already-low GDP  
22 growth rate is inappropriate.

1 **Q. Do you agree with Mr. Storm' s fourth downward adjustment of ROE to**  
2 **account for a lower equity ratio in his comparable group?**

3 A. No. While large differences in capital structure may be recognized by investors  
4 and may cause higher return requirements, Mr. Storm' s proposed adjustment is  
5 misplaced as the capital structure difference he points to is relatively small. Even  
6 with what appears to be an extreme approach on his part for dealing with the debt  
7 percentages of his comparable companies,<sup>6</sup> his group' s projected average debt  
8 ratio is about 52.5 percent, whereas PacifiCorp' s proposed debt ratio is 48.7  
9 percent. My comparable group has a lower debt ratio than Mr. Storm' s for 2010  
10 at 50 percent. Also, as shown in Exhibit PPL/202, the average debt ratio for my  
11 comparable group at year-end 2008, was 49.9 percent. Since all these debt ratios  
12 fall close to the 50/50 debt and equity percentages generally prescribed for single-  
13 A rated electric utilities, it is unlikely that any perceived difference in required  
14 ROE for PacifiCorp would exist, and if it did exist, it would be immaterial. It  
15 appears that Mr. Storm' s capital structure adjustment is simply a further attempt  
16 to reach a lower ROE.

17 **Q. Are there other adjustments in Mr. Storm' s analysis that also affect his**  
18 **results?**

19 A. Yes. These adjustments are not discussed or shown in Mr. Storm' s testimony or  
20 exhibits, contrary to the Commission' s Guidelines for Cost of Equity Witnesses

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<sup>6</sup>On page 26, in footnote 73, Mr. Storm explains that two of his risk-comparable companies would not have met his debt ratio selection criterion (45%-55% debt) if he had used the 2010 projected data in his selection process. In fact, in his workpapers, his spreadsheet shows (see Comparable Companies Tab, Column AS, Rows 7-18) that four of his companies would not have meet the criterion and that five other companies have projected debt ratios of 53.5 percent or higher.

1 adopted in Dockets UE 115 and UE 116. See Order No. 01-777 at Appendix A.  
2 However, a careful review of Mr. Storm’ s electronic spreadsheet in his  
3 workpapers demonstrates that Mr. Storm made a least two unexplained and  
4 entirely incorrect adjustments to the data that significantly reduced his reported  
5 ROE estimate:

- 6 1) His choice to average the individual comparable company data into a  
7 single “ composite company” (Staff/800, Storm/13) reduced his reported  
8 results by 30 basis points (0.3%);
- 9 2) An artificially created dividend cut in the year 2015 reduced his ROE  
10 estimate by an additional 30 basis points.

11 Additionally, Mr. Storm’ s judgmental 5 percent downward adjustment to  
12 GDP growth rate reduced his ROE estimate by an additional 20 basis points. In  
13 combination, these technical factors in Mr. Storm’ s analysis reduced his base  
14 ROE estimate from about 10.4 percent to the 9.6 percent shown in his spreadsheet  
15 model.

16 **Q. Please describe Mr. Storm’ s 3-stage DCF model.**

17 A. His 3-stage DCF model is structurally similar to the “ multi-stage” DCF model I  
18 used. We both calculate the investor’ s expected rate of return from purchasing  
19 stock at today’ s prices and receiving a growing stream of dividends far into the  
20 future. In both of our models we used Value Line’ s projected data for Stage 1  
21 (years 1-5).<sup>7</sup> For Stage 2, we both applied a long-term GDP growth rate. Stage 2  
22 in Mr. Storm’ s model goes through year 40, at which time he calculates a DCF  
23 “ terminal” stock price (Mr. Storm’ s third stage) which assumes that a future

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<sup>7</sup>Mr. Storm extends his first stage for six years, which could have decreased his ROE estimate if his Stage 1 and Stage 2 growth rates had been significantly different. In this case, this feature does not appear to have made a significant difference in the Company’ s results.

1 owner would receive the dividend stream after year 40. In my model, Stage 2  
2 continues for 150 years. As Mr. Storm states (Staff/800, Storm/14), our models  
3 should produce approximately the same ROE estimates if the same inputs and  
4 assumptions are used.

5 **Q. Please explain why Mr. Storm’ s averaging the data into a “ composite**  
6 **company” reduced the ROE estimate.**

7 A. Mr. Storm’ s “ composite company” ~~approach~~ is statistically incorrect because it  
8 inadvertently creates a weighting scheme that is not consistent with finding the  
9 expected value for the comparable company sample group. In Exhibit PPL/218, I  
10 have reproduced Mr. Storm’ s 9.62 percent “ composite company” result (Base  
11 Case), and I have also calculated the mean and median ROE estimate for his  
12 group from the individual company estimates (Case 1). The mean and median  
13 ROE values are 9.9 percent and 10.0 percent, respectively.

14 The 30 to 40 basis point difference between Mr. Storm’ s “ composite  
15 company” approach and the mean and median from the individual company  
16 estimates is caused by his incorrect weighting of the data. In his analysis, he  
17 created the “ composite company,” to which he applied his model, by averaging  
18 companies’ stock prices, dividends, earnings, and other financial data. In effect,  
19 this process gave much more weight to companies with higher stock prices and  
20 much less weight to companies with lower stock prices. For example, on page 2  
21 of Exhibit PPL/218, this effect can be seen by comparing the impact of averaging  
22 Entergy’ s data in line 4 with the data for Empire District in line 3. Because  
23 Entergy’ s price is almost five times greater than Empire’ s and its dividends are

1 more than twice as large, an average of these two companies obviously gives  
2 more weight to Entergy. Also, it can easily be shown that, under Mr. Storm' s  
3 approach, a simple 2-for-1 or 3-for-1 stock split for one of the companies would  
4 change his results, even though a stock split would have no impact on the group' s  
5 expected rate of return on equity. Although Mr. Storm may not have recognized  
6 it when he performed his analysis, his “ composite company” approach seriously  
7 skewed the data and in this case resulted in a 30 basis point understatement of  
8 PacifiCorp' s ROE.

9 **Q. Please explain the effect of Mr. Storm' s dividend cut for his “ composite**  
10 **company” in 2015?**

11 A. In Stage 1 of Mr. Storm' s model, dividends are based on Value Line' s projections  
12 for the years 2009-2014. For his “ composite company” during that time,  
13 dividends increase from \$1.83 per share to \$2.23 per share, or at a growth rate of  
14 about 4 percent per year. Although Mr. Storm says that his growth becomes 4.91  
15 percent in Stage 2 of his model, in fact, in 2015 the dividend drops by 3.6 percent.  
16 After that, the 4.91 percent adjusted GDP growth rate again drives the model.  
17 The effect of his unexplained dividend cut is a lower dividend stream over the  
18 remaining years of his model. As shown in Exhibit PPL/218 (Case 2), when this  
19 dividend cut is eliminated and Mr. Storm' s 4.91 percent growth rate is used in  
20 each year in Stage 2 of his model, the result is a 30 basis point increase in his  
21 estimated ROE.

22 **Q. Is the dividend cut in Mr. Storm' s model appropriate?**

23 A. No. While the multi-stage version of the DCF model is designed to accommodate

1 changing growth rates, it does not contemplate a dividend cut. In fact, based on  
2 Mr. Storm' s company selection criteria, his " composite company," with a  
3 dividend cut in 2015, would not be eligible for inclusion. (Staff/800, Storm/10,  
4 line 5.)

5 **Q. What is the effect of removing Mr. Storm' s 5 percent reduction to the GDP**  
6 **growth rate?**

7 A. That result is shown in Exhibit PPL/218 (Case 3). The resulting mean and  
8 median ROE estimates are 10.4 percent and 10.5 percent, respectively.

9 **Q. What is the result from Mr. Storm' s model if your 6.2 percent forecast for**  
10 **GDP growth is used in the model for Stages 2 and 3?**

11 A. As shown in Exhibit PPL/218 (Case 4), with a 6.2 percent long-term growth rate,  
12 Mr. Storm' s model produces a mean and median ROE estimate of 11.1 percent.

13 **Q. What do you conclude from your review of Mr. Storm' s ROE analysis and**  
14 **testimony?**

15 A. The multi-stage DCF model, if correctly applied, appropriately reflects the real  
16 increases public utilities are currently experiencing in their cost of capital.  
17 Apparently to avoid these results, Mr. Storm made a series of ad hoc adjustments,  
18 some apparent and some buried in workpapers, to produce an artificially low  
19 ROE. I have demonstrated why each of these ad hoc adjustments is incorrect or  
20 inappropriate. Without these adjustments (but still using Mr. Storm' s proposed  
21 GDP growth rate), Mr. Storm' s ROE recommendation would be between a range  
22 of 10.2 percent to 10.3 percent. In addition, Mr. Storm relied exclusively on his  
23 DCF analysis without presenting any corroborating analysis. In evaluating the



1 reasonably of Mr. Storm’ s conclusions I would suggest the Commission  
2 consider its own “ gauge of reasonableness” standard noted above in drawing  
3 conclusions regarding the merits of Mr. Storm’ s ROE recommendation. Indeed,  
4 in UE 116, the Commission corrected Staff’ s DCF model to produce a 10.5  
5 percent result, used this adjusted result with my DCF result of 11 percent to set a  
6 reasonable ROE range and selected the 10.75 percent mid-point as the final ROE.

7 **Reply to ICNU-CUB witness Michael Gorman**

8 **Q. Please summarize Mr. Gorman’ s ROE recommendation.**

9 A. Mr. Gorman’ s recommendation is summarized in the following table (Table 4  
10 from Gorman Direct Testimony, ICNU-CUB/300, Gorman/39):

<b>TABLE 4</b>	
<b>Return on Common Equity Summary</b>	
<u>Description</u>	<u>Results</u>
DCF	10.80%
Risk Premium	10.00%
CAPM	8.60%

11 From this data, Mr. Gorman recommends an ROE range of 9.60 percent to 10.40  
12 percent with a midpoint point estimate of 10.00 percent. The upper end of his  
13 range is the midpoint of the DCF and (equity) Risk premium range and the lower  
14 end is the approximate midpoint of the DCF and CAPM range.

15 **Q. Does Mr. Gorman provide a more detailed analysis than is shown in the**  
16 **above table?**

17 A. Yes. What cannot be seen in Mr. Gorman’ s Table 4 are the individual model

1 results that Mr. Gorman averages for his summary. A closer examination of all of  
 2 his results shows that his averaging may have diluted the higher results and given  
 3 disproportionate weight to lower results. All of Mr. Gorman' s model results are  
 4 shown in Table 4 below:

<b>Table 4</b>	
Gorman All-Inclusive ROE Summary	
<u>Description</u>	<u>Results</u>
Constant Growth DCF (Analysts Growth)	11.68%
Constant Growth DCF (Sustainable Growth)	10.62%
Multi-Stage Growth DCF Model	10.96%
Risk Premium (Treasury Bond)	9.84%
Risk Premium (Single-A Bond)	10.17%
CAPM (Current Market Risk Premium)	<del>8.73%</del> Not reasonable
CAPM (Historical Risk Premium)	<u>8.41%</u> Not reasonable
Average Excluding Outliers & Extreme Data	<u><u>10.65%</u></u>

5 As shown in Table 4, four of Mr. Gorman' s seven models produce ROEs above  
 6 10.17 percent. His CAPM analyses produce a range of only 8.41 percent to 8.73  
 7 percent. These results should be removed because there are only 195 and 227  
 8 basis points above the 6.46 percent current cost of triple-B debt that Mr. Gorman  
 9 uses in his equity risk premium analysis. When the remaining data are averaged  
 10 the indicated ROE is 10.65 percent. Thus, by simply removing two unreasonably  
 11 low estimates and considering all of Mr. Gorman' s other models, the indicated  
 12 ROE is significantly higher.

13 **Q. Does Mr. Gorman agree that his CAPM results are not credible at this time?**

14 A. Yes, on pages 38-39 of his testimony Mr. Gorman states:

1 I believe my CAPM study is also impacted by the distressed  
2 financial market. The impact on the financial market has resulted  
3 in a decline in the market risk premium that was largely caused by  
4 a significant decline in stock market valuations and increase in  
5 Treasury bond valuations at the end of 2008. The market risk  
6 premium has been around 6.5% over the last several years, but  
7 declined to 5.6% at year-end 2008. I do not believe this reduced  
8 market risk premium is sustainable. Therefore, I recommend  
9 minimal or no weight be placed on the CAPM return estimate at  
10 this time. (emphasis added)

11 **Q. Is there any potential confusion between Mr. Gorman’ s dismissal of his**  
12 **CAPM analysis and his table presentation of his results?**

13 A. Yes. Mr. Gorman clearly states above that “ minimal or no weight be placed on  
14 the CAPM return estimate at this time.” However, in his ROE summary table on  
15 page 39, he clearly included his CAPM result in developing the final DCF  
16 average result. If the CAPM result were removed from his results table, the  
17 average of the remaining DCF result (10.80%) and equity Risk Premium result  
18 (10.00%) would be 10.40 percent.

19 **Q. Is Mr. Gorman’ s decision to exclude his CAPM results consistent with the**  
20 **Oregon Commission’ s traditionally skeptical view of the CAPM model?**

21 A. Yes. In Order No. 01-787 in Docket UE 116, the Commission gave Staff’ s  
22 CAPM results “ no weight” because the results in that case “ cast doubt on the  
23 validity” of the CAPM methodology. While the Commission did not reject the  
24 use of the CAPM model in its entirety, it made clear it would not rely upon the  
25 model unless it produced “ supportable and reasonable” results. In this case, the  
26 CAPM model does not produce supportable and reasonable results, as Mr.  
27 Gorman acknowledges.

1 **Q. What other general areas of disagreement do you have with Mr. Gorman' s**  
2 **analysis and recommendations?**

3 A. Mr. Gorman' s analysis is negatively biased by his input assumptions and his  
4 application of the models. While he applies a non-constant growth DCF model  
5 similar to one I use and includes GDP growth as an input, he uses relatively short-  
6 term GDP growth rate forecasts that are significantly dominated by recent  
7 historically low inflation. His GDP growth forecast is based on inflation  
8 estimates that are almost a full percentage point below longer-term historical  
9 averages. This is inconsistent with the long-term growth assumption that is  
10 fundamental to the DCF model.

11 In his equity risk premium analysis, he selects risk premiums that are not  
12 consistent with recent risk premium data. He selectively applies those equity risk  
13 premiums in a way that creates a mismatch of older risk premium data with  
14 current interest rates. Furthermore, he fails to include the well-documented  
15 inverse relationship between equity risk premiums and interest rates; i.e., the  
16 tendency for risk premiums to widen when interest rates are low and narrow when  
17 interest rates are high. Without this feature, his equity risk premium theory is not  
18 consistent with sound academic research, such as studies by Harris and Marston.  
19 This omission causes his equity risk premium estimates to be significantly  
20 understated.

21 His CAPM analysis produces an average ROE estimate of 8.60 percent,  
22 which is by far the lowest number in his range. He should have discarded these  
23 results as he himself recommends. Without CAPM, a more reasonable

1 interpretation of Mr. Gorman' s analysis indicates that he should have found an  
2 ROE in the 10.0 percent to 11.7 percent range.

3 **Q. What specific disagreements do you have with Mr. Gorman' s three-stage**  
4 **DCF analyses?**

5 A. In his three-stage (or multi-stage) model, he uses analysts' growth forecasts in the  
6 first five years and a GDP forecast for years eleven and later; in years six through  
7 ten, he interpolates growth in a linear fashion between the first and third stages.  
8 However, in all these models, his estimate of future GDP growth is too low. His  
9 forecasts are for five- and ten-year periods, as published by *Blue Chip Financial*  
10 *Forecasts* (ICNU-CUB/300, Gorman/27). The current Blue Chip consensus is  
11 low because it is based on assumed inflation rates of only about 2.0 percent,  
12 which is much lower than the long-term U.S. average inflation rate of over 3.0  
13 percent. The currently depressed nature of economic forecasts detracts from Mr.  
14 Gorman' s use of these forecasts to estimate long-term growth.

15 **Q. If Mr. Gorman had used your GDP growth forecast of 6.2 percent in his**  
16 **multi-stage growth DCF analyses, what would his results have been?**

17 A. On page 2 of Exhibit PPL/219, I substitute my 6.2 percent long-term GDP growth  
18 rate into Mr. Gorman' s multi-stage DCF analysis. That revised analysis indicates  
19 an ROE of 11.74 percent.

20 **Q. Please comment on Mr. Gorman' s equity risk premium ROE analysis.**

21 A. His equity risk premium analysis is based on subjective and inappropriate  
22 selections from the data he presents, and it fails to include the well documented  
23 tendency for equity risk premiums to expand when interest rates are low. When

1 his selectivity is removed and the analysis is modified to properly reflect wider  
2 equity risk premiums with lower interest rates, Mr. Gorman' s risk premium  
3 analysis indicates a much higher ROE.

4 **Q. Please elaborate.**

5 A. His equity risk premium data are presented in Exhibits ICNU-CUB/314 and 315.  
6 He discusses the analysis on pages 29-33 of his testimony. The analysis consists  
7 of two parts. In one approach he adds Government bond equity risk premiums of  
8 4.40 percent and 6.08 percent to a projected 30-year Treasury bond yield of 4.60  
9 percent. This produces an ROE range of 9.00 percent to 10.68 percent, with a  
10 midpoint of 9.84 percent. In his second approach, he adds equity risk premiums  
11 of 3.03 percent and 4.39 percent to the recent triple-B utility bond yield of 6.46  
12 percent. This produces ROE estimates of 9.49 percent to 10.68 percent, with a  
13 midpoint of 10.17 percent. From these results, he concludes that an ROE of 10.00  
14 percent is appropriate (midpoint of 9.84 percent and 10.17 percent).

15 **Q. Why do you disagree with Mr. Gorman' s Government bond equity risk**  
16 **premium approach?**

17 A. In this approach, he adds an equity risk premium of 5.24 percent to a Government  
18 bond yield of 4.60 percent to reach a result of 9.84 percent. An examination of  
19 the data in Mr. Gorman' s Exhibit ICNU-CUB/314 reveals the flaw in this  
20 analysis. In essence, Mr. Gorman is mismatching historical data with current  
21 rates in a way that is not reasonable.

22 **Q. Please explain.**

23 A. The last column in Exhibit ICNU-CUB/314 indicates that since 1986 the average

1 “ Indicated Risk Premium” has been 5.17 percent. This is very close to the 5.24  
2 percent risk premium that Mr. Gorman uses. However, the average Treasury  
3 Bond Yield over this period has been 6.37 percent, much higher than the current  
4 rate of 4.60 percent he uses. In fact, there are only two periods with rates as low  
5 as 4.60 percent in all of Mr. Gorman’ s data and they represent just one year  
6 (2008) and the first quarter of 2009. It is not reasonable for Mr. Gorman to apply  
7 a historical risk premium to currently low interest rate data without some  
8 adjustment to account for the relationship between interest rate levels and equity  
9 risk premiums. In Exhibit PPL/219, described below, I make the proper  
10 adjustment to Mr. Gorman’ s data to account for this relationship and show that his  
11 Treasury bond risk premium result should have been much higher.

12 **Q. Does Mr. Gorman’ s utility bond risk premium analysis suffer from the same**  
13 **flaw?**

14 A. Yes. His analysis in Exhibit ICNU-CUB/315 also illustrates the mismatch  
15 between historical risk premiums and current interest rates that plagues his  
16 Treasury bond risk premium analysis. A review of the data in Exhibit ICNU-  
17 CUB/315 shows that since 1986 the average equity risk premium has been 3.69  
18 percent which is similar to the midpoint premium that Mr. Gorman uses of 3.71  
19 percent. However, the average utility bond yield over this period has been 7.85  
20 percent, which is significantly higher than the rate of 6.46 percent used by Mr.  
21 Gorman in this case. Again, Mr. Gorman has mismatched historical equity risk  
22 premiums with current low interest rates.

1 **Q. In your equity risk premium analysis from your direct testimony, you used a**  
2 **standard regression analysis to account for the inverse relationship between**  
3 **equity risk premiums and interest rates. What do Mr. Gorman' s risk**  
4 **premium data indicate when this approach is used?**

5 A. In Exhibit PPL/219, pages 3-6, I have applied the standard regression analysis to  
6 calculate “ interest rate adjustment” factors for his two risk premium studies. This  
7 approach properly takes into account the inverse relationship between equity risk  
8 premiums and interest rates. With this, Mr. Gorman' s Treasury bond risk  
9 premium analysis indicates an ROE of 10.54 percent, as shown in pages 3-4 of  
10 Exhibit PPL/219. For his utility bond risk premium analysis, the indicated ROE  
11 is 10.66 percent (pages 5-6 of the same Exhibit). These results confirm that Mr.  
12 Gorman' s equity risk premium data support a base ROE midpoint result of 10.60  
13 percent (average of 10.54% and 10.66%).

14 **Q. Has Mr. Gorman previously recognized the inverse risk premium-interest**  
15 **rate relationship?**

16 A. Yes. In his testimony before the Texas Public Utility Commission in Docket No.  
17 14965, page 15, lines 10-13, Mr. Gorman stated:

18 The results of my study indicate an inverse relationship between a  
19 bond' s real return and the equity risk premium. This result is  
20 consistent with the findings of published studies which indicate  
21 equity risk premiums move inversely with interest rates.

22 Had Mr. Gorman made a similar adjustment in this case, his equity risk premium  
23 results would have indicated a considerably higher ROE than he recommends.



1 **Update of ROE Analysis**

2 **Q. Have you updated your ROE analysis to take into account recent data and**  
3 **the current conditions in the capital markets?**

4 A. Yes. Consistent with my customary practice, I have updated my ROE analysis for  
5 current conditions using the same methodologies that I employed in my previous  
6 analysis.

7 **Q. What are the results of your updated DCF analyses?**

8 A. My updated DCF results are shown in Exhibit PPL/220. The indicated DCF  
9 range is 11.2 percent to 11.6 percent, with a midpoint of 11.4 percent.

10 **Q. What are the results of your updated bond yield plus equity risk premium**  
11 **analysis?**

12 A. My updated equity risk premium analysis is presented in Exhibit PPL/221. Based  
13 on projected single-A utility interest rates for 2010, the equity risk premium  
14 analysis indicates an ROE of 11.40 percent. Based on the most recent three  
15 month' s average single-A utility interest rates, the equity risk premium ROE is  
16 10.62 percent.

17 **Q. What do you conclude from your updated ROE analyses?**

18 A. My updated analyses show that PacifiCorp' s current cost of equity capital is in the  
19 range of 10.6 percent to 11.4 percent, with a midpoint estimate of 11.0 percent.  
20 My updated analysis confirms that my original recommendation of 11.0 percent is  
21 reasonable and that the other parties' recommendations, as discussed herein, are  
22 too low.

- 1 **Q. Does that conclude your testimony?**
- 2 A. Yes, it does.



Docket No. UE-210  
Exhibit PPL/215  
Witness: Samuel C. Hadaway

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of Samuel C. Hadaway**

**Long Term Interest Rate Trends  
Standard & Poor' s Trends & Projections**

**August 2009**

## PacifiCorp Oregon Long-Term Interest Rate Trends

Month	Single-A Utility Rate	30-Year Treasury Rate	Single-A Utility Spread
Jan-07	5.96	4.85	1.11
Feb-07	5.90	4.82	1.08
Mar-07	5.85	4.72	1.13
Apr-07	5.97	4.87	1.10
May-07	5.99	4.90	1.09
Jun-07	6.30	5.20	1.10
Jul-07	6.25	5.11	1.14
Aug-07	6.24	4.93	1.31
Sep-07	6.18	4.79	1.39
Oct-07	6.11	4.77	1.34
Nov-07	5.97	4.52	1.45
Dec-07	6.16	4.53	1.63
Jan-08	6.02	4.33	1.69
Feb-08	6.21	4.52	1.69
Mar-08	6.21	4.39	1.82
Apr-08	6.29	4.44	1.85
May-08	6.28	4.60	1.68
Jun-08	6.38	4.69	1.69
Jul-08	6.40	4.57	1.83
Aug-08	6.37	4.50	1.87
Sep-08	6.49	4.27	2.22
Oct-08	7.56	4.17	3.39
Nov-08	7.60	4.00	3.60
Dec-08	6.52	2.87	3.65
Jan-09	6.39	3.13	3.26
Feb-09	6.30	3.59	2.71
Mar-09	6.42	3.64	2.78
Apr-09	6.48	3.76	2.72
May-09	6.49	4.23	2.26
Jun-09	6.20	4.52	1.68
Jul-09	5.97	4.41	1.56
<b>3-Mo Avg</b>	<b>6.22</b>	<b>4.39</b>	<b>1.83</b>
<b>12-Mo Avg</b>	<b>6.57</b>	<b>3.92</b>	<b>2.64</b>

Sources: Mergent Bond Record (Utility Rates); www.federalreserve.gov (Treasury Rates).

# Economic Indicators

Seasonally Adjusted Annual Rates — Dollar Figures in Billions

	2008				2009				2010					
	2008	E2009	E2010	2008	E2009	E2010	2008	E2009	E2010	2009	E2010	2009	E2010	
<b>Gross Domestic Product</b>														
GDP (current dollars)	\$14,264.6	\$14,066.0	\$14,397.8	3.3	(1.4)	2.4	\$14,200.3	\$14,097.2	\$14,026.6	\$14,044.1	\$14,096.0	\$14,185.4	\$14,321.9	\$14,459.9
Annual rate of increase (%)	3.3	(1.4)	2.4	-	-	-	(5.8)	(2.9)	(2.0)	0.5	1.5	2.6	3.9	3.9
Annual rate of increase—real GDP (%)	1.1	(3.0)	1.2	-	-	-	(6.3)	(5.5)	(2.2)	(1.0)	0.7	1.3	2.5	2.2
Annual rate of increase—GDP deflator (%)	2.2	1.6	1.2	-	-	-	0.5	2.8	0.0	1.5	0.8	1.2	1.4	1.6
<b>*Components of Real GDP</b>														
Personal consumption expenditures	\$8,272.1	\$8,201.0	\$8,292.6	0.2	(0.9)	1.1	\$8,170.5	\$8,198.0	\$8,193.3	\$8,197.8	\$8,215.0	\$8,234.0	\$8,263.6	\$8,313.6
% change	0.2	(0.9)	1.1	-	-	-	(4.3)	1.4	(0.2)	0.2	0.8	0.9	1.4	2.4
Durable goods	1,188.5	1,129.3	1,146.0	(4.3)	(5.0)	1.5	1,108.6	1,134.1	1,127.5	1,131.2	1,124.4	1,121.9	1,125.3	1,154.5
Non-durable goods	2,378.4	2,315.4	2,359.7	(0.6)	(2.6)	1.9	2,318.6	2,316.4	2,303.6	2,313.7	2,327.9	2,339.6	2,352.6	2,367.6
Services	4,714.3	4,747.2	4,780.5	1.5	0.7	0.7	4,729.4	4,740.5	4,752.2	4,744.6	4,751.5	4,759.8	4,773.0	4,787.2
Nonresidential fixed investment	1,405.4	1,141.2	1,124.7	1.6	(18.8)	(1.4)	1,341.1	1,193.4	1,154.8	1,116.2	1,100.5	1,112.9	1,109.1	1,121.0
% change	1.6	(18.8)	(1.4)	-	-	-	(21.7)	(37.3)	(12.3)	(12.7)	(5.5)	4.6	(1.3)	4.4
Producers durable equipment	1,047.0	847.0	891.6	(3.0)	(19.1)	5.3	970.5	875.7	847.6	829.8	834.9	856.6	875.4	900.0
Residential fixed investment	351.3	267.5	274.2	(21.0)	(23.8)	2.5	323.9	285.8	267.0	259.4	257.9	257.1	265.2	278.2
% change	(21.0)	(23.8)	2.5	-	-	-	(22.9)	(39.4)	(23.8)	(10.9)	(2.3)	(1.2)	13.2	21.0
Net change in business inventories	(29.1)	(81.5)	5.3	-	-	-	(25.8)	(87.1)	(135.7)	(74.9)	(28.2)	(5.5)	11.0	5.5
Gov't purchases of goods & services	2,070.2	2,092.0	2,101.9	2.9	1.1	0.5	2,094.7	2,078.4	2,089.0	2,098.1	2,102.3	2,105.8	2,111.7	2,098.0
Federal	798.2	834.5	845.0	6.0	4.5	1.3	824.5	815.2	831.8	843.0	847.9	850.6	854.7	842.4
State & local	1,273.0	1,260.0	1,259.8	1.1	(1.0)	(0.0)	1,272.3	1,265.1	1,259.7	1,257.9	1,257.5	1,258.2	1,260.2	1,258.5
Net exports	(390.2)	(310.9)	(358.1)	-	-	-	(364.5)	(296.8)	(263.1)	(324.8)	(358.7)	(376.3)	(361.9)	(349.8)
Exports	1,514.1	1,298.1	1,360.0	6.2	(14.3)	4.8	1,454.9	1,327.7	1,286.6	1,283.3	1,294.7	1,313.9	1,344.2	1,374.7
Imports	1,904.3	1,609.0	1,718.1	(3.5)	(15.5)	6.8	1,819.4	1,624.6	1,549.7	1,608.1	1,653.4	1,690.2	1,706.1	1,724.5
<b>**Income &amp; Profits</b>														
Personal income	\$12,100.7	\$12,105.3	\$12,339.9	3.8	0.0	1.9	\$12,119.5	\$12,048.8	\$12,193.9	\$12,072.2	\$12,106.2	\$12,183.3	\$12,281.2	\$12,389.7
Disposable personal income	10,643.3	10,913.2	11,059.0	4.6	2.5	1.3	10,642.0	10,773.7	11,014.4	10,912.3	10,952.4	10,921.4	11,010.5	11,111.3
Savings rate (%)	1.8	5.0	3.7	-	-	-	3.2	4.3	6.2	4.8	4.7	3.9	3.9	3.7
Corporate profits before taxes	1,597.3	1,400.9	1,576.8	(15.3)	(12.3)	12.6	1,194.5	1,351.7	1,343.3	1,450.5	1,458.0	1,516.8	1,552.5	1,584.4
Corporate profits after taxes	1,230.6	1,088.2	1,214.9	(14.3)	(11.6)	11.7	931.2	1,054.2	1,046.0	1,122.9	1,129.5	1,171.2	1,196.0	1,219.8
Earnings per share (S&P 500)	14.88	30.00	37.26	(77.5)	101.6	24.2	14.88	6.88	1.29	(0.99)	30.00	32.14	34.20	35.85
<b>†Prices &amp; Interest Rates</b>														
Consumer price index	3.8	(0.5)	2.0	-	-	-	(8.3)	(2.4)	1.2	2.8	1.8	1.7	2.2	2.5
Treasury bills	1.4	0.2	0.6	-	-	-	0.3	0.2	0.2	0.2	0.3	0.4	0.4	0.6
10-yr notes	3.7	3.5	4.9	-	-	-	3.3	2.7	3.3	3.8	4.2	4.6	4.9	5.0
30-yr bonds	4.3	4.3	5.7	-	-	-	3.7	3.5	4.2	4.6	5.1	5.4	5.7	5.8
New issue rate—corporate bonds	5.6	5.7	6.7	-	-	-	5.8	5.3	5.5	5.7	6.1	6.4	6.7	6.8
<b>Other Key Indicators</b>														
Housing starts (1,000 units SAAR)	900.3	533.8	782.1	(32.9)	(40.7)	46.5	658.0	527.7	500.8	543.0	563.7	630.9	723.4	839.3
Auto & truck sales (1,000,000 units)	13.1	9.9	11.2	(18.4)	(24.9)	13.9	10.3	9.5	9.8	10.0	10.1	10.3	10.7	11.6
Unemployment rate (%)	5.8	9.4	10.4	-	-	-	6.9	8.1	9.3	9.9	10.2	10.4	10.4	10.5
\$U.S. dollar	(4.4)	5.9	(7.1)	-	-	-	49.5	6.9	(14.0)	(12.7)	(5.0)	(5.7)	(5.4)	(5.4)

Note: Annual changes are from prior year and quarterly changes are from prior quarter. Figures may not add to totals because of rounding. A—Advance data. P—Preliminary. E—Estimated. R—Revised.  
\*2000 Chain-weighted dollars. \*\*Current dollars. †Trailing 4 quarters. ‡Average for period. §Quarterly % changes at quarterly rates. This forecast prepared by Standard & Poor's.



Docket No. UE-210  
Exhibit PPL/216  
Witness: Samuel C. Hadaway

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of Samuel C. Hadaway**

**Regulatory Research Associates – Electric Utility Decisions**

**August 2009**



**ELECTRIC UTILITY DECISIONS (Footnotes on page 9)**

<u>Date</u>	<u>Company (State)</u>	<u>ROR</u> <u>%</u>	<u>ROE</u> <u>%</u>	<u>Common</u> <u>Eq. as %</u> <u>Cap. Str.</u>	<u>Test Year</u> <u>&amp;</u> <u>Rate Base</u>	<u>Amt.</u> <u>\$ Mil.</u>
1/13/04	Madison Gas and Electric (WI)	9.37 (G)	12.00	55.91	12/04-A	11.7
2/26/04	Pacific Gas and Electric (CA)	---	---	---	---	-799.0 (B)
3/2/04	PacifiCorp (WY)	8.42	10.75	44.95	9/02-YE	22.9
3/26/04	Nevada Power (NV)	9.03	10.25	33.97	5/03-YE	48.0
<b>2004</b>	<b>1ST QUARTER AVERAGES/TOTAL</b>	<b>8.94</b>	<b>11.00</b>	<b>44.94</b>		<b>-716.4</b>
	<b>OBSERVATIONS</b>	<b>3</b>	<b>3</b>	<b>3</b>		<b>4</b>
4/5/04	Interstate Power and Light (MN)	9.05	11.25 (R)	47.15	12/02-A	0.6 (I,R)
4/13/04	Aquila-MPS (MO)	---	---	---	---	14.5 (B)
4/13/04	Aquila-L&P (MO)	---	---	---	---	3.3 (B)
5/5/04	Wisconsin Electric Power (WI)	---	---	---	12/04-A	59.0
5/18/04	PSI Energy (IN)	7.30	10.50	44.44 *	9/02-YE	107.3
5/20/04	Rochester Gas & Electric (NY)	---	---	---	4/05-A	7.4 (B,1)
5/25/04	Idaho Power (ID)	7.85	10.25	45.97	12/03-A	39.5 (R,B,Z)
5/27/04	Sierra Pacific Power (NV)	9.26	10.25	35.77	7/03-YE	46.7 (B)
6/2/04	Pacific Gas & Electric (CA)	---	---	---	12/03-A	274.0 (B)
6/30/04	Kentucky Utilities (KY)	7.00 (G)	10.50	51.58	9/03-YE	46.1 (B,2)
6/30/04	Louisville Gas and Electric (KY)	6.79 (G)	10.50	48.60	9/03-YE	43.4 (B,3)
<b>2004</b>	<b>2ND QUARTER AVERAGES/TOTAL</b>	<b>7.88</b>	<b>10.54</b>	<b>45.59</b>		<b>641.8</b>
	<b>OBSERVATIONS</b>	<b>6</b>	<b>6</b>	<b>6</b>		<b>11</b>
7/16/04	Southern California Edison (CA)	---	---	---	12/03-A	73.0
8/25/04	Aquila (CO)	8.76	10.25	47.50	8/03-A	8.2 (B)
9/2/04	Public Service New Hampshire (NH)	---	---	---	---	13.5 (B,Z,TD)
9/9/04	Avista Corp. (ID)	9.25	10.40	42.59	12/02-A	24.7
<b>2004</b>	<b>3RD QUARTER AVERAGES/TOTAL</b>	<b>9.01</b>	<b>10.33</b>	<b>45.05</b>		<b>119.4</b>
	<b>OBSERVATIONS</b>	<b>2</b>	<b>2</b>	<b>2</b>		<b>4</b>
10/27/04	PacifiCorp (WA)	8.39	---	---	---	15.0 (B)
11/9/04	Narragansett Electric (RI)	8.89 (E)	10.50	50.00	---	-10.2 (B,Di)
11/23/04	Cincinnati Gas & Electric (OH)	---	---	---	---	85.0 (R,Z)
11/23/04	Detroit Edison (MI)	7.24	11.00	38.08 *	12/02-A	373.7 (I)
12/8/04	San Diego Gas & Electric (CA)	---	---	---	12/04-A	-8.2 (B,Di)
12/14/04	Interstate Power & Light (IA)	8.83	10.97	47.89	12/03-A	106.7 (I,B)
12/21/04	Georgia Power (GA)	---	11.25	---	12/05-A	194.1 (B)
12/21/04	Wisconsin Public Service (WI)	8.89 (G)	11.50	57.35	12/05-A	61.0
12/22/04	PPL-Electric Utilities (PA)	8.43	10.70	46.87	12/04-YE	194.3 (TD)
12/22/04	Madison Gas and Electric (WI)	9.18 (G)	11.50	57.64	12/05-A	27.4
12/29/04	Western Massachusetts Electric (MA)	---	9.85	---	---	9.0 (B,Di,Z)
<b>2004</b>	<b>4TH QUARTER AVERAGES/TOTAL</b>	<b>8.55</b>	<b>10.91</b>	<b>49.64</b>		<b>1047.8</b>
	<b>OBSERVATIONS</b>	<b>7</b>	<b>8</b>	<b>6</b>		<b>11</b>
<b>2004</b>	<b>FULL-YEAR AVERAGES/TOTAL</b>	<b>8.44</b>	<b>10.75</b>	<b>46.84</b>		<b>1092.6</b>
	<b>OBSERVATIONS</b>	<b>18</b>	<b>19</b>	<b>17</b>		<b>30</b>

**ELECTRIC UTILITY DECISIONS (continued)**

<u>Date</u>	<u>Company (State)</u>	<u>ROR</u> <u>%</u>	<u>ROE</u> <u>%</u>	<u>Common</u> <u>Eq. as %</u> <u>Cap. Str.</u>	<u>Test Year</u> <u>&amp;</u> <u>Rate Base</u>	<u>Amt.</u> <u>\$ Mil.</u>
1/6/05	South Carolina Electric & Gas (SC)	8.64	10.70	50.31	12/04-YE	41.4
1/28/05	Aquila Networks-WPK (KS)	8.73	10.50	33.63	12/03-YE	7.4
2/18/05	Puget Sound Energy (WA)	8.40	10.30	43.00	9/03-A	56.6
2/25/05	PacifiCorp (UT)	8.37	10.50	47.80	3/06	51.0 (B)
3/10/05	Empire District Electric (MO)	9.18	11.00	49.14	12/03-YE	25.7 (B)
3/18/05	Dominion North Carolina Power (NC)	---	---	---	12/03	-12.0 (B)
3/24/05	Consolidated Edison of New York (NY)	8.08	10.30	48.00	3/06-A	325.0 (B,Z,TD)
3/31/05	Texas-New Mexico Power (TX)	---	10.25	40.00	---	-13.0 (B,Di)
<b>2005</b>	<b>1ST QUARTER AVERAGES/TOTAL OBSERVATIONS</b>	<b>8.57</b> <b>6</b>	<b>10.51</b> <b>7</b>	<b>44.55</b> <b>7</b>		<b>482.1</b> <b>8</b>
4/4/05	Central Vermont Public Service (VT)	8.14	10.00	55.53	12/03-A	-7.2 (R)
4/7/05	Arizona Public Service (AZ)	7.80	10.25	45.00 (Hy)	12/02-YE	67.6 (B)
5/2/05	Public Service Co. of Oklahoma (OK)	---	---	---	6/03-YE	-6.9 (B)
5/17/05	Wisconsin Electric Power (WI)	---	---	---	12/05-A	59.7
5/18/05	Entergy Louisiana (LA)	8.76	10.25	48.73	12/02-A	0.0 (B)
5/25/05	Savannah Electric and Power (GA)	---	10.75	---	---	9.6 (B)
5/26/05	Atlantic City Electric (NJ)	8.14	9.75	46.22	12/02-YE	-3.1 (Di,B)
5/26/05	Idaho Power (ID)	---	---	---	---	9.4
6/1/05	Jersey Central Power & Light (NJ)	8.50	9.75	46.00	12/02-YE	51.1 (Di,B)
6/8/05	Public Service New Hampshire (NH)	---	9.62 (R, Gn)	---	---	---
<b>2005</b>	<b>2ND QUARTER AVERAGES/TOTAL OBSERVATIONS</b>	<b>8.27</b> <b>5</b>	<b>10.05</b> <b>7</b>	<b>48.30</b> <b>5</b>		<b>180.2</b> <b>9</b>
7/19/05	Wisconsin Power and Light (WI)	9.41 (G)	11.50	61.75	6/06-A	18.6
7/22/05	PacifiCorp (ID)	---	---	---	---	5.8 (B)
8/5/05	Cap Rock Energy (TX)	6.17	11.75	25.00 (Hy)	9/03-YE	-1.3
8/15/05	AEP Texas Central (TX)	7.48	10.13	40.00	6/03-YE	-8.8 (TD,B)
9/28/05	PacifiCorp (OR)	8.06	10.00	47.56	12/06-A	25.9 (Bp)
<b>2005</b>	<b>3RD QUARTER AVERAGES/TOTAL OBSERVATIONS</b>	<b>7.78</b> <b>4</b>	<b>10.84</b> <b>4</b>	<b>43.58</b> <b>4</b>		<b>40.2</b> <b>5</b>
12/9/05	Empire District Electric (KS)	---	---	---	---	2.2 (B)
12/12/05	Madison Gas and Electric (WI)	8.88 (G)	11.00	56.65	12/06-A	35.9
12/13/05	OGE Electric Service (OK)	8.66	10.75	55.69	12/04-YE	42.3
12/16/05	Pacific Gas and Electric (CA)	8.79	11.35	52.00	12/06	3.3
12/16/05	San Diego Gas & Electric (CA)	8.23	10.70	49.00	12/06	0.0
12/16/05	Southern California Edison (CA)	8.77	11.60	48.00	12/06	-26.4
12/22/05	Wisconsin Public Service (WI)	8.83 (G)	11.00	59.73	12/06-A	79.9
12/21/05	Cincinnati Gas & Electric (OH)	8.24	10.29	47.53	6/05-A	51.5 (Di,B)
12/21/05	Avista (WA)	9.11	10.40	40.00	12/04-A	22.1 (B)
12/22/05	Consumers Energy (MI)	6.78	11.15	36.31 *	12/03-A	177.4
12/28/05	Westar Energy North (KS)	7.89	10.00	44.59	12/04-YE	24.2
12/28/05	Kansas Gas and Electric (KS)	7.89	10.00	44.59	12/04-YE	-21.2
12/28/05	Dayton Power & Light (OH)	---	---	---	---	250.0 (E,B,Z)
12/30/05	NSTAR Electric (MA)	---	---	---	---	30.0 (B,Di,4)
<b>2005</b>	<b>4TH QUARTER AVERAGES/TOTAL OBSERVATIONS</b>	<b>8.37</b> <b>11</b>	<b>10.75</b> <b>11</b>	<b>48.55</b> <b>11</b>		<b>671.2</b> <b>14</b>
<b>2005</b>	<b>FULL-YEAR AVERAGES/TOTAL OBSERVATIONS</b>	<b>8.31</b> <b>26</b>	<b>10.54</b> <b>29</b>	<b>46.73</b> <b>27</b>		<b>1373.7</b> <b>36</b>

**ELECTRIC UTILITY DECISIONS (continued)**

<b>Date</b>	<b>Company (State)</b>	<b>ROR %</b>	<b>ROE %</b>	<b>Common Eq. as % Cap. Str.</b>	<b>Test Year &amp; Rate Base</b>	<b>Amt. \$ Mil.</b>
1/5/06	Northern States Power (WI)	8.94 (G)	11.00	53.66	12/06-A	43.4
1/25/06	Wisconsin Electric Power (WI)	---	---	---	---	229.7 (2)
1/27/06	United Illuminating (CT)	6.88 (3)	9.75	48.00	12/04-A	41.2 (R,Di,Z,3)
2/23/06	Aquila Networks-MPS (MO)	---	---	---	---	22.4 (B)
2/23/06	Aquila Networks-L&P (MO)	---	---	---	---	3.9 (B)
3/3/06	Interstate Power and Light (MN)	8.58	10.39	49.10	12/04-A	1.2 (I,B)
3/14/06	Kentucky Power (KY)	---	---	---	---	41.0 (B)
3/24/06	PacifiCorp (WY)	---	---	---	---	25.0 (B,Z)
3/29/06	Entergy Gulf States (LA)	---	---	---	---	36.8 (I,B)
<b>2006</b>	<b>1ST QUARTER: AVERAGES/TOTAL</b>	<b>8.13</b>	<b>10.38</b>	<b>50.25</b>		<b>444.6</b>
	<b>MEDIAN</b>	<b>8.58</b>	<b>10.39</b>	<b>49.10</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>3</b>	<b>3</b>	<b>3</b>		<b>9</b>
4/17/06	PacifiCorp (WA)	8.10	10.20	46.00	9/04-A	0.0
4/18/06	MidAmerican Energy (IA)	---	11.90 (4)	---	---	---
4/26/06	Sierra Pacific Power (NV)	8.96	10.60	40.76	5/05-YE	-14.0
5/12/06	Idaho Power (ID)	8.10	---	---	12/05	18.1 (B)
5/17/06	Southern California Edison (CA)	---	---	---	12/06-A	133.9 (5)
6/6/06	Delmarva Power & Light (DE)	7.17	10.00	47.72	3/05-A	-11.1 (Di)
6/27/06	Upper Peninsula Power (MI)	7.75	10.75	47.12 *	12/06	3.8 (B)
<b>2006</b>	<b>2ND QUARTER: AVERAGES/TOTAL</b>	<b>8.02</b>	<b>10.69</b>	<b>45.40</b>		<b>130.7</b>
	<b>MEDIAN</b>	<b>8.10</b>	<b>10.60</b>	<b>46.56</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>5</b>	<b>5</b>	<b>4</b>		<b>6</b>
7/6/06	Maine Public Service (ME)	8.45	10.20	50.00	12/05	1.8 (B,Di)
7/24/06	Central Hudson Gas & Electric (NY)	7.05 (6)	9.60	45.00	3/06-A	53.7 (B,Z,TD)
7/26/06	Appalachian Power (WV)	7.60	10.50	---	12/04-A	111.7 (B,Z)
7/28/06	Commonwealth Edison (IL)	8.01	10.05	42.86	12/04-YE	82.6 (R,TD,7)
8/23/06	New York State Electric & Gas (NY)	7.18	9.55	41.60	12/07-A	-36.3 (TD)
8/31/06	Detroit Edison (MI)	---	---	---	---	-78.8 (B,Z)
9/1/06	Northern States Power (MN)	8.81	10.54	51.67	12/06-A	131.5 (I,8)
9/5/06	CenterPoint Energy Houston Electric (TX)	---	---	---	12/05	-57.9 (B,TD)
9/14/06	PacifiCorp (OR)	8.16	10.00	50.00	12/07-A	43.0 (B,7)
<b>2006</b>	<b>3RD QUARTER: AVERAGES/TOTAL</b>	<b>7.89</b>	<b>10.06</b>	<b>46.86</b>		<b>251.3</b>
	<b>MEDIAN</b>	<b>8.01</b>	<b>10.05</b>	<b>47.50</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>7</b>	<b>7</b>	<b>6</b>		<b>9</b>
10/6/06	Unitil Energy Systems (NH)	8.70	9.67	43.10	6/05-YE	2.8 (B,Di,Z)
10/27/06	Entergy New Orleans (LA)	---	---	---	---	3.9 (B,9)

**ELECTRIC UTILITY DECISIONS (continued)**

<b>Date</b>	<b>Company (State)</b>	<b>ROR %</b>	<b>ROE %</b>	<b>Common Eq. as % Cap. Str.</b>	<b>Test Year &amp; Rate Base</b>	<b>Amt. \$ Mil.</b>
11/21/06	Delmarva Power & Light (DE)	---	---	---	---	-12.0 (B,I,Tr)
11/21/06	Central Illinois Light (IL)	7.94	10.12	45.57	12/04-YE	20.7 (TD)
11/21/06	Central Illinois Public Service (IL)	8.06	10.08	48.92	12/04-YE	-8.0 (TD)
11/21/06	Illinois Power (IL)	8.33	10.08	51.56	12/04-YE	84.0 (TD)
12/1/06	Duquesne Light (PA)	---	---	45.00	12/06	117.0 (B,Di)
12/1/06	PacifiCorp (UT)	---	10.25	---	---	115.0 (B,Z)
12/1/06	Public Service of Colorado (CO)	8.85	10.50	60.00	---	107.0 (B)
12/4/06	Kansas City Power & Light (KS)	---	---	---	---	29.0 (B)
12/7/06	Central Vermont Public Service (VT)	8.55	10.75	55.57	12/05-A	10.8 (B)
12/14/06	Western Massachusetts Electric (MA)	---	---	---	---	4.0 (B,Di,Z)
12/18/06	PacifiCorp (ID)	---	---	---	---	8.3 (B)
12/21/06	Duke Energy Kentucky (KY)	---	---	---	---	49.0 (B)
12/21/06	Empire District Electric (MO)	9.07	10.90	49.74	12/05-YE	29.4
12/21/06	Kansas City Power & Light (MO)	8.83 (E)	11.25	53.69	12/05-YE	50.6
12/22/06	Green Mountain Power (VT)	8.65	10.25	52.76	12/05-A	19.0 (B)
12/28/06	Black Hills Power (SD)	---	---	---	---	7.9 (B)
<b>2006</b>	<b>4TH QUARTER: AVERAGES/TOTAL</b>	<b>8.55</b>	<b>10.39</b>	<b>50.59</b>		<b>638.4</b>
	<b>MEDIAN</b>	<b>8.65</b>	<b>10.25</b>	<b>50.65</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>9</b>	<b>10</b>	<b>10</b>		<b>18</b>
<b>2006</b>	<b>FULL YEAR: AVERAGES/TOTAL</b>	<b>8.20</b>	<b>10.36</b>	<b>48.67</b>		<b>1465.0</b>
	<b>MEDIAN</b>	<b>8.25</b>	<b>10.25</b>	<b>48.92</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>24</b>	<b>25</b>	<b>23</b>		<b>42</b>

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**ELECTRIC UTILITY DECISIONS**

<u>Date</u>	<u>Company (State)</u>	<u>ROR</u> <u>%</u>	<u>ROE</u> <u>%</u>	<u>Common</u> <u>Eq. as %</u> <u>Cap. Str.</u>	<u>Test Year</u> <u>&amp;</u> <u>Rate Base</u>	<u>Amt.</u> <u>\$ Mil.</u>
1/5/07	Oklahoma Gas & Electric (AR)	5.36	10.00	32.33 *	12/05-YE	5.4 (B)
1/5/07	Puget Sound Energy (WA)	8.40	10.40	44.00	9/05-A	-22.8
1/11/07	Metropolitan Edison (PA)	7.52	10.10	49.00	12/06-YE	58.7 (D)
1/11/07	Pennsylvania Electric (PA)	7.92	10.10	49.00	12/06-YE	50.2 (D)
1/11/07	Wisconsin Public Service (WI)	12.93	10.90	57.46	12/07-A/P	56.7
1/12/07	Portland General Electric (OR)	8.29	10.10	50.00 (Hy)	12/07-A	20.5 (Z)
1/19/07	Wisconsin Power and Light (WI)	9.27	10.80	54.13	12/07-A/P	36.2
3/21/07	Pacific Gas and Electric (CA)	---	---	---	12/07-A	192.2 (B,1)
3/22/07	Rockland Electric (NJ)	7.83	9.75	46.51	12/06-YE	6.4 (B,D)
<b>2007</b>	<b>1ST QUARTER: AVERAGES/TOTAL</b>	<b>8.44</b>	<b>10.27</b>	<b>47.80</b>		<b>403.5</b>
	<b>MEDIAN</b>	<b>8.11</b>	<b>10.10</b>	<b>49.00</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>8</b>	<b>8</b>	<b>8</b>		<b>9</b>
5/15/07	Appalachian Power (VA)	7.36	10.00	41.11 *	12/05-YE	24.0
5/17/07	Aquila (MPS) (MO)	8.39	10.25	48.17	12/05-YE	45.2
5/17/07	Aquila (L&P) (MO)	8.93	10.25	48.17	12/05-YE	13.6
5/22/07	Monongahela Pow./Potomac Ed. (WV)	8.44	10.50	46.07	12/05-YE	-6.2
5/22/07	Union Electric (MO)	7.94	10.20	52.22	6/06-YE	41.8
5/23/07	Nevada Power (NV)	9.06	10.70	47.29	6/06-YE	120.5
5/24/07	AEP Texas North (TX)	---	---	---	6/06-YE	13.7 (B,D)
5/25/07	Public Service of New Hampshire (NH)	7.55	9.67	47.66	12/05-A	50.1 (B,I,D)
6/15/07	Entergy Arkansas (AR)	5.58	9.90	32.19 *	6/06-YE	-5.7
6/21/07	PacifiCorp (WA)	8.06	10.20	46.00	3/06-A	14.4 (R)
6/22/07	Appalachian Power (WV)	7.67 (E)	10.50 (E)	42.88 (E)	12/06-YE	85.5 (B,Z)
6/28/07	Arizona Public Service (AZ)	8.32	10.75	54.50	9/05-YE	321.7
<b>2007</b>	<b>2ND QUARTER: AVERAGES/TOTAL</b>	<b>7.94</b>	<b>10.27</b>	<b>46.02</b>		<b>718.6</b>
	<b>MEDIAN</b>	<b>8.06</b>	<b>10.25</b>	<b>47.29</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>11</b>	<b>11</b>	<b>11</b>		<b>12</b>
7/3/07	El Paso Electric (NM)	---	---	---	12/05-YE	5.5 (B)
7/12/07	Granite State Electric (NH)	8.61	9.67	50.00 (Hy)	---	-2.2 (B,D,Z)
7/19/07	Delmarva Power & Light (MD)	7.68	10.00	48.63	9/06-A	14.9 (D,2)
7/19/07	Potomac Electric Power (MD)	7.99	10.00	47.69	9/06-A	10.6 (D,2)
7/27/07	Southwestern Public Service (TX)	---	---	---	9/05-YE	23.0 (B)
8/15/07	Southern Indiana Gas & Electric (IN)	7.32	10.40	47.05 *	3/06-YE	67.3 (B)
<b>2007</b>	<b>3RD QUARTER: AVERAGES/TOTAL</b>	<b>7.90</b>	<b>10.02</b>	<b>48.34</b>		<b>119.1</b>
	<b>MEDIAN</b>	<b>7.84</b>	<b>10.00</b>	<b>48.16</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>4</b>	<b>4</b>	<b>4</b>		<b>6</b>
10/9/07	Public Service of Oklahoma (OK)	8.01	10.00	46.02	6/06-YE	9.8 (I)
10/18/07	Orange and Rockland Utilities (NY)	7.56	9.10	47.54	6/08-A	0.0 (D)
10/31/07	Electric Transmission Texas (TX)	7.88 (R)	9.96	40.00 (Hy)	6/08-YE	12.0 (R,Tr,3)

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**ELECTRIC UTILITY DECISIONS (continued)**

<u>Date</u>	<u>Company (State)</u>	<u>ROR</u> <u>%</u>	<u>ROE</u> <u>%</u>	<u>Common</u> <u>Eq. as %</u> <u>Cap. Str.</u>	<u>Test Year</u> <u>&amp;</u> <u>Rate Base</u>	<u>Amt.</u> <u>\$ Mil.</u>
11/20/07	Kansas City Power & Light (KS)	---	---	---	---	28.0 (B)
11/29/07	Cheyenne Light, Fuel & Power (WY)	8.84	10.90	54.00 (Hy)	9/06-YE	6.7 (B)
11/29/07	Wisconsin Power and Light (WI)	---	---	---	12/08-A	25.8 (4)
12/6/07	Kansas City Power & Light (MO)	8.68	10.75	57.62	12/06-YE	35.3
12/6/07	PPL Electric Utilities (PA)	---	---	---	12/07-YE	55.0 (B,D)
12/13/07	AEP Texas Central (TX)	7.50	9.96	40.00 (Hy)	6/06-YE	40.8 (I,D)
12/14/07	Madison Gas and Electric (WI)	9.08	10.80	57.36	12/08-A/P	16.2
12/14/07	South Carolina Electric & Gas (SC)	8.62	10.70	53.32	3/07-YE	76.9 (B)
12/19/07	Avista Corporation (WA)	8.20	10.20	46.00	12/06-A	30.2 (B)
12/20/07	Duke Energy Carolinas (NC)	8.57	11.00	53.00	12/06-YE	-286.9 (Bp)
12/20/07	Bangor Hydro-Electric (ME)	8.60	10.20	---	---	1.1 (B,D)
12/21/07	Pacific Gas and Electric (CA)	8.79	11.35	52.00	12/08-A	0.0
12/21/07	San Diego Gas & Electric (CA)	8.40	11.10	49.00	12/08-A	8.2
12/21/07	Southern California Edison (CA)	8.75	11.50	48.00	12/08-A	-9.6
12/28/07	PacifiCorp (ID)	8.27	10.25	50.40	12/06	11.5 (B)
12/31/07	Georgia Power (GA)	---	11.25	---	7/08-A	99.7 (B)
<b>2007</b>	<b>4TH QUARTER: AVERAGES/TOTAL</b>	<b>8.38</b>	<b>10.56</b>	<b>49.59</b>		<b>160.7</b>
	<b>MEDIAN</b>	<b>8.57</b>	<b>10.73</b>	<b>49.70</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>15</b>	<b>16</b>	<b>14</b>		<b>19</b>
<b>2007</b>	<b>FULL YEAR: AVERAGES/TOTAL</b>	<b>8.22</b>	<b>10.36</b>	<b>48.01</b>		<b>1401.9</b>
	<b>MEDIAN</b>	<b>8.28</b>	<b>10.25</b>	<b>48.17</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>38</b>	<b>39</b>	<b>37</b>		<b>46</b>
1/8/08	Northern States Power-Wisconsin (WI)	9.67	10.75	52.51	12/08-A	39.4
1/17/08	Wisconsin Electric Power (WI)	9.26	10.75	54.36	12/08-A/P	148.4 (Z)
1/28/08	Connecticut Light & Power (CT)	7.72	9.40	48.99	12/06-YE	97.9 (D,Z)
1/30/08	Potomac Electric Power (DC)	7.96	10.00	46.55	2/07-A	28.3 (D,5)
1/31/08	Central Vermont Public Service (VT)	8.50	10.21 (R)	50.02	12/06-A	6.4 (B)
2/6/08	Interstate Power & Light (IA)	---	11.70 (6)	---	---	---
2/28/08	Idaho Power (ID)	8.10	---	---	---	32.1 (B)
2/29/08	Fitchburg Gas & Electric (MA)	8.38	10.25	42.80	12/06-YE	2.1 (D)
3/12/08	PacifiCorp (WY)	8.29	10.25	50.80	8/08	23.0 (B,7)
3/25/08	Consolidated Edison of New York (NY)	7.34	9.10	47.98	3/09-A	425.3 (D)
3/31/08	Virginia Electric Power (VA)	---	12.12 (8)	---	---	---
<b>2008</b>	<b>1ST QUARTER: AVERAGES/TOTAL</b>	<b>8.36</b>	<b>10.45</b>	<b>49.25</b>		<b>802.9</b>
	<b>MEDIAN</b>	<b>8.29</b>	<b>10.25</b>	<b>49.51</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>9</b>	<b>10</b>	<b>8</b>		<b>9</b>
4/22/08	MDU Resources (MT)	8.58	10.25	50.67	12/06-A	4.1 (B,Z)
4/24/08	Public Service Co. of New Mexico (NM)	8.24	10.10	51.37	9/06-YE	34.4
5/1/08	Hawaiian Electric Company (HI)	8.66	10.70	55.79	12/05-A	44.9 (Bp,I)
5/27/08	UNS Electric (AZ)	9.02	10.00	48.85	6/06-YE	4.0
5/30/08	Idaho Power (ID)	---	---	---	---	8.9

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**ELECTRIC UTILITY DECISIONS (continued)**

<u>Date</u>	<u>Company (State)</u>	<u>ROR</u> <u>%</u>	<u>ROE</u> <u>%</u>	<u>Common</u> <u>Eq. as %</u> <u>Cap. Str.</u>	<u>Test Year</u> <u>&amp;</u> <u>Rate Base</u>	<u>Amt.</u> <u>\$ Mil.</u>
6/10/08	Consumers Energy (MI)	6.93	10.70	41.75 *	12/08-A	221.0 (I)
6/16/08	MidAmerican Energy (IA)	---	11.70 (B,10)	---	---	---
6/27/08	Appalachian Power (WV)	7.65	10.50	41.54	12/07-YE	106.1 (B)
6/27/08	Sierra Pacific Power (NV)	8.41	10.60 (11)	43.49	6/07-YE	87.1
6/30/08	Oncor Electric Delivery (TX)	---	---	---	12/06	--- (D,12)
<b>2008</b>	<b>2ND QUARTER: AVERAGES/TOTAL</b>	<b>8.21</b>	<b>10.57</b>	<b>47.64</b>		<b>510.5</b>
	<b>MEDIAN</b>	<b>8.41</b>	<b>10.55</b>	<b>48.85</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>7</b>	<b>8</b>	<b>7</b>		<b>8</b>
7/1/08	Central Maine Power (ME)	---	---	---	---	-20.3 (B,D,13)
7/2/08	NorthWestern Corporation (MT)	--- (14)	---	---	---	10.0 (B,I)
7/10/08	Otter Tail Corporation (MN)	8.33	10.43	50.00	12/06-A	3.8 (I)
7/16/08	Orange and Rockland Utilities (NY)	7.69	9.40	48.00	6/09-A	15.6 (B,D)
7/30/08	Empire District Electric (MO)	8.92	10.80	50.78	6/07-YE	22.0
7/31/08	San Diego Gas & Electric (CA)	--- (15)	--- (15)	--- (15)	12/08-A	234.0 (B,Z)
8/11/08	PacifiCorp (UT)	8.29	10.25	50.40	12/08-A	39.4 (R)
8/26/08	Southwestern Public Service (NM)	8.27	10.18	51.23	12/06-YE	13.1
8/27/08	MidAmerican Energy (IA)	---	11.70 (B,16)	---	---	---
9/10/08	Commonwealth Edison (IL)	8.36	10.30	45.04	12/06-YE	273.6 (D)
9/24/08	Central Illinois Light (IL)	8.01	10.65	46.50	12/06-YE	-2.8 (D)
9/24/08	Central Illinois Public Service (IL)	8.20	10.65	47.91	12/06-YE	22.0 (D)
9/24/08	Illinois Power (IL)	8.68	10.65	51.76	12/06-YE	103.9 (D)
9/30/08	Avista Corp. (ID)	8.45	10.20	47.94	12/07-A	23.2 (B)
<b>2008</b>	<b>3RD QUARTER: AVERAGES/TOTAL</b>	<b>8.32</b>	<b>10.47</b>	<b>48.96</b>		<b>737.5</b>
	<b>MEDIAN</b>	<b>8.31</b>	<b>10.43</b>	<b>49.00</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>10</b>	<b>11</b>	<b>10</b>		<b>13</b>
10/8/08	PacifiCorp (WA)	8.06	---	---	---	20.4 (B)
10/8/08	Puget Sound Energy (WA)	8.25	10.15	46.00	9/07-A	130.2 (B)
11/13/08	NorthWestern Corporation (MT)	8.25 (17)	10.00 (17)	50.00 (17)	---	---
11/17/08	Appalachian Power (VA)	7.69	10.20	---	12/07	167.9 (I,B)
12/1/08	Tucson Electric Power (AZ)	8.03	10.25	42.50	12/06-YE	136.8 (B)
12/17/08	Duke Energy Ohio (OH)	---	---	---	---	98.0 (B,Gn,E,Z)
12/18/08	Madison Gas and Electric (WI)	---	---	---	12/09	-2.7
12/23/08	Detroit Edison (MI)	7.16	11.00	40.68 *	12/09-A	83.6
12/29/08	Portland General Electric (OR)	8.33	10.10 (Bp)	50.00	12/09-A	121.0
12/29/08	Avista Corporation (WA)	8.22	10.20	46.30	12/07-A	32.5 (B)
12/30/08	Wisconsin Power and Light (WI)	---	---	---	12/09	0.0 (B)
12/30/08	Wisconsin Public Service (WI)	---	---	53.41	12/09	48.0 (B,18)
12/31/08	Northern States Power (ND)	8.80	10.75	51.77	12/08	12.8 (I,B)
<b>2008</b>	<b>4TH QUARTER: AVERAGES/TOTAL</b>	<b>8.09</b>	<b>10.33</b>	<b>47.58</b>		<b>848.5</b>
	<b>MEDIAN</b>	<b>8.22</b>	<b>10.20</b>	<b>48.15</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>9</b>	<b>8</b>	<b>8</b>		<b>12</b>
<b>2008</b>	<b>YEAR-TO-DATE: AVERAGES/TOTAL</b>	<b>8.25</b>	<b>10.46</b>	<b>48.41</b>		<b>2899.4</b>
	<b>MEDIAN</b>	<b>8.27</b>	<b>10.25</b>	<b>48.99</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>35</b>	<b>37</b>	<b>33</b>		<b>42</b>

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**ELECTRIC UTILITY DECISIONS**

<u>Date</u>	<u>Company (State)</u>	<u>ROR</u> <u>%</u>	<u>ROE</u> <u>%</u>	<u>Common</u> <u>Eq. as %</u> <u>Cap. Str.</u>	<u>Test Year</u> <u>&amp;</u> <u>Rate Base</u>	<u>Amt.</u> <u>\$ Mil.</u>
1/14/09	Public Service Oklahoma (OK)	8.31	10.50	44.10	2/08-YE	59.3 (1)
1/21/09	Westar Energy (KS)	---	---	---	---	65.0 (B)
1/21/09	Kansas Gas & Electric (KS)	---	---	---	---	65.0 (B)
1/21/09	Cleveland Electric Illuminating (OH)	8.48	10.50 (E)	49.00	2/08-DC	29.2 (D)
1/21/09	Ohio Edison (OH)	8.48	10.50 (E)	49.00	2/08-DC	68.9 (D)
1/21/09	Toledo Edison (OH)	8.48	10.50 (E)	49.00	2/08-DC	38.5 (D)
1/30/09	Idaho Power (ID)	8.18	10.50	49.27	12/08-YE	27.0 (R)
2/4/09	United Illuminating (CT)	7.59	8.75	50.00	12/07-A	6.8 (D,R,2)
2/4/09	Interstate Power & Light (IA)	---	10.10 (3)	---	---	---
2/5/09	Kentucky Utilities (KY)	---	---	---	---	-8.9 (B)
2/5/09	Louisville Gas & Electric (KY)	---	---	---	---	-13.2 (B)
2/10/09	Union Electric (MO)	8.34	10.76	52.01	3/08-YE	161.7
3/4/09	Indiana Michigan Power (IN)	7.62	10.50	45.80 *	9/07-YE	19.1 (4)
3/11/09	Entergy Texas (TX)	---	---	---	3/07	30.5 (B,I,5)
3/17/09	Southern California Edison (CA)	---	---	---	12/09-A	308.1 (6)
<b>2009</b>	<b>1ST QUARTER: AVERAGES/TOTAL</b>	<b>8.19</b>	<b>10.29</b>	<b>48.52</b>		<b>857.0</b>
	<b>MEDIAN</b>	<b>8.33</b>	<b>10.50</b>	<b>49.00</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>8</b>	<b>9</b>	<b>8</b>		<b>14</b>
4/2/09	Entergy New Orleans (LA)	---	11.10	---	12/08-YE	-24.7 (B,7)
4/16/09	PacifiCorp (ID)	---	---	---	---	4.4 (B)
4/21/09	PacifiCorp (UT)	8.36	10.61	51.00	12/09-A	45.0 (B)
4/24/09	Consolidated Edison of New York (NY)	7.79	10.00	48.00	3/10-A	523.4 (D)
4/30/09	Tampa Electric (FL)	8.11	11.25	46.11 *	12/09-A	137.9 (Z)
5/4/09	Minnesota Power (MN)	8.45	10.74	54.79	6/09-A	21.1 (I)
5/20/09	Oklahoma Gas & Electric (AR)	6.43	10.25	36.04 *	12/07-YE	13.3 (B)
5/20/09	NorthWestern Corp. (MT)	8.38	10.25	50.00	---	--- (8)
5/20/09	PacifiCorp (WY)	---	---	---	---	18.0 (B)
5/28/09	Public Service New Mexico (NM)	8.77	10.50	50.47	3/08-YE	77.1 (B,Z)
5/29/09	Idaho Power (ID)	---	---	---	---	10.5 (9)
6/2/09	Southwestern Public Service (TX)	---	---	---	12/07	57.4 (B,I)
6/9/09	Public Service Co. of Colorado (CO)	---	---	---	---	112.2 (B)
6/10/09	Kansas City Power & Light (MO)	---	---	---	12/07-YE	95.0 (B)
6/10/09	KCP&L Greater Missouri Oper. (MO)	---	---	---	12/07-YE	63.0 (B)
6/22/09	Central Hudson Gas & Electric (NY)	7.28	10.00	47.00	6/10-A	38.0 (D)
6/24/09	Nevada Power (NV)	8.53	10.50	44.15	6/08-YE	221.0 (Z)
<b>2009</b>	<b>2ND QUARTER: AVERAGES/TOTAL</b>	<b>8.01</b>	<b>10.52</b>	<b>47.51</b>		<b>1412.6</b>
	<b>MEDIAN</b>	<b>8.36</b>	<b>10.50</b>	<b>48.00</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>9</b>	<b>10</b>	<b>9</b>		<b>16</b>
<b>2009</b>	<b>YEAR-TO-DATE AVERAGES/TOTAL</b>	<b>8.09</b>	<b>10.41</b>	<b>47.98</b>		<b>2269.6</b>
	<b>MEDIAN</b>	<b>8.34</b>	<b>10.50</b>	<b>49.00</b>		<b>---</b>
	<b>OBSERVATIONS</b>	<b>17</b>	<b>19</b>	<b>17</b>		<b>30</b>



## FOOTNOTES

- A- Average
- B- Order followed stipulation or settlement by the parties. Decision particulars not necessarily precedent-setting or specifically adopted by the regulatory body.
- Bp- Order followed partial stipulation or settlement by the parties. Decision particulars not necessarily precedent-setting or specifically adopted by the regulatory body.
- Di- Rate change applicable to electric distribution or gas delivery rates only.
- E- Estimated
- G- Return on capital
- Gn- Return applicable to generation assets only.
- Hy- Hypothetical capital structure utilized
- I- Interim rates implemented prior to the issuance of final order, normally under bond and subject to refund.
- P- Partial inclusion of CWIP in rate base without AFUDC offset to income
- PBR- Performance Based Ratemaking
- R- Revised
- TD- Rate change applicable to electric transmission and distribution rates only.
- Tr- Rate change applicable to electric transmission rates only.
- YE- Year-end
- Z- Rate change implemented in multiple steps.
- \* Capital structure includes cost-free items or tax credit balances at the overall rate of return.
- \*\* 6/8/05 PSNH case was generation-only case.



Docket No. UE-210  
Exhibit PPL/217  
Witness: Samuel C. Hadaway

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of Samuel C. Hadaway**

**Analysts' Consensus Growth Rates for S&P 500 Companies**

**August 2009**

## PacifiCorp Oregon

### Analysts' Consensus Growth Rates for S&P 500 Companies

No.	Company Name	Ticker	Long-Term Growth Consensus Estimate (%)
1	3M CO	MMM	9.42
2	ABBOTT LABS	ABT	11.19
3	ABERCROMBIE	ANF	10.64
4	ADOBE SYSTEMS	ADBE	14.40
5	ADV MICRO DEV	AMD	12.50
6	AES CORP	AES	11.00
7	AETNA INC-NEW	AET	14.92
8	AFFILIATED COMP	ACS	10.68
9	AFLAC INC	AFL	14.50
10	AGILENT TECH	A	13.00
11	AIR PRODS & CHE	APD	7.25
12	AKAMAI TECH	AKAM	10.88
13	ALCOA INC	AA	(9.10)
14	ALLEGHENY ENGY	AYE	14.00
15	ALLEGHENY TECH	ATI	(4.90)
16	ALLERGAN INC	AGN	15.05
17	ALLSTATE CORP	ALL	9.09
18	ALTERA CORP	ALTR	13.71
19	ALTRIA GROUP	MO	7.00
20	AMAZON.COM INC	AMZN	26.75
21	AMER ELEC PWR	AEP	4.25
22	AMER EXPRESS CO	AXP	11.00
23	AMER INTL GRP	AIG	9.00
24	AMEREN CORP	AEE	4.00
25	AMERICAN TOWER	AMT	19.83
26	AMERIPRISE FINL	AMP	11.50
27	AMERISOURCEBRGN	ABC	11.67
28	AMGEN INC	AMGN	11.12
29	AMPHENOL CORP-A	APH	20.00
30	ANADARKO PETROL	APC	6.25
31	ANALOG DEVICES	ADI	11.42
32	AON CORP	AOC	11.34
33	APACHE CORP	APA	11.40
34	APARTMENT INVT	AIV	5.00
35	APOLLO GROUP	APOL	15.25
36	APPLD MATLS INC	AMAT	11.00
37	APPLE INC	AAPL	18.64
38	ARCHER DANIELS	ADM	18.00
39	ASSURANT INC	AIZ	8.75
40	AT&T INC	T	5.38
41	AUTODESK INC	ADSK	10.00
42	AUTOMATIC DATA	ADP	11.63
43	AUTONATION INC	AN	8.95

## PacifiCorp Oregon

### Analysts' Consensus Growth Rates for S&P 500 Companies

No.	Company Name	Ticker	Long-Term Growth Consensus Estimate (%)
44	AUTOZONE INC	AZO	12.21
45	AVALONBAY CMMTY	AVB	8.81
46	AVERY DENNISON	AVY	8.67
47	AVON PRODS INC	AVP	12.00
48	BAKER-HUGHES	BHI	8.00
49	BALL CORP	BLL	5.00
50	BANK OF AMER CP	BAC	7.58
51	BANK OF NY MELL	BK	9.97
52	BARD C R INC	BCR	14.17
53	BAXTER INTL	BAX	12.46
54	BB&T CORP	BBT	7.41
55	BECTON DICKINSON	BDX	11.57
56	BED BATH&BEYOND	BBBY	12.11
57	BEMIS	BMS	8.67
58	BEST BUY	BBY	12.45
59	BIG LOTS INC	BIG	12.20
60	BIOGEN IDEC INC	BIIB	9.37
61	BJ SERVICES	BJS	6.00
62	BLACK & DECKER	BDK	6.67
63	BLOCK H & R	HRB	11.00
64	BMC SOFTWARE	BMC	11.73
65	BOEING CO	BA	7.88
66	BOSTON PPTYS	BXP	5.25
67	BOSTON SCIENTIF	BSX	13.82
68	BRISTOL MYRS SQ	BMJ	4.52
69	BROADCOM CORP-A	BRCM	17.25
70	BROWN FORMAN B	BF.B	15.40
71	BURLNGTN NSF CP	BNI	10.07
72	CA INC	CA	9.00
73	CABOT OIL & GAS	COG	4.00
74	CAMERON INTL	CAM	18.50
75	CAMPBELL SOUP	CPB	6.33
76	CAPITAL ONE FIN	COF	13.30
77	CARDINAL HEALTH	CAH	10.00
78	CARNIVAL CORP	CCL	12.50
79	CATERPILLAR INC	CAT	8.60
80	CB RICHARD ELLS	CBG	10.00
81	CBS CORP	CBS	5.58
82	CELGENE CORP	CELG	25.99
83	CENTERPOINT EGY	CNP	7.00
84	CENTEX CORP	CTX	12.00
85	CENTURYTEL INC	CTL	3.00
86	CEPHALON INC	CEPH	13.63

## PacifiCorp Oregon

### Analysts' Consensus Growth Rates for S&P 500 Companies

No.	Company Name	Ticker	Long-Term Growth Consensus Estimate (%)
87	CH ROBINSON WWD	CHRW	13.18
88	CHESAPEAKE ENGY	CHK	10.20
89	CHEVRON CORP	CVX	9.00
90	CHUBB CORP	CB	5.00
91	CIENA CORP	CIEN	10.80
92	CIGNA CORP	CI	12.11
93	CINTAS CORP	CTAS	11.75
94	CISCO SYSTEMS	CSCO	11.05
95	CITIGROUP INC	C	7.00
96	CITRIX SYS INC	CTXS	12.00
97	CLOROX CO	CLX	8.86
98	CME GROUP INC	CME	9.56
99	CMS ENERGY	CMS	6.50
100	COACH INC	COH	13.52
101	COCA COLA CO	KO	8.70
102	COCA-COLA ENTRP	CCE	7.00
103	COGNIZANT TECH	CTSH	18.43
104	COLGATE PALMOLI	CL	10.29
105	COMCAST CORP A	CMCSA	10.50
106	COMERICA INC	CMA	5.44
107	COMP SCIENCE	CSC	9.50
108	CONAGRA FOODS	CAG	15.07
109	CONOCOPHILLIPS	COP	7.00
110	CONSOL EDISON	ED	4.00
111	CONSOL ENERGY	CNX	13.05
112	CONSTELLATN BRD	STZ	10.97
113	CONSTELLATN EGY	CEG	12.00
114	CONVERGYS CORP	CVG	10.13
115	COOPER INDS LTD	CBE	9.00
116	CORNING INC	GLW	13.57
117	COSTCO WHOLE CP	COST	11.61
118	COVENTRY HLTHCR	CVH	13.32
119	CSX CORP	CSX	11.38
120	CUMMINS INC	CMI	9.00
121	CVS CAREMARK CP	CVS	15.53
122	D R HORTON INC	DHI	8.80
123	DANAHER CORP	DHR	12.13
124	DARDEN RESTRNT	DRI	11.99
125	DAVITA INC	DVA	12.95
126	DEAN FOODS CO	DF	9.00
127	DEERE & CO	DE	7.33
128	DELL INC	DELL	10.60
129	DENBURY RES INC	DNR	14.25

## PacifiCorp Oregon

### Analysts' Consensus Growth Rates for S&P 500 Companies

No.	Company Name	Ticker	Long-Term Growth Consensus Estimate (%)
130	DENTSPLY INTL	XRAY	12.67
131	DEVON ENERGY	DVN	8.40
132	DEVRY INC	DV	20.29
133	DIAMOND OFFSHOR	DO	25.00
134	DIRECTV GRP INC	DTV	20.13
135	DISCOVER FIN SV	DFS	6.00
136	DISNEY WALT	DIS	9.40
137	DOMINION RES VA	D	5.50
138	DOVER CORP	DOV	11.33
139	DOW CHEMICAL	DOW	8.00
140	DR PEPPER SNAPL	DPS	9.00
141	DTE ENERGY CO	DTE	5.00
142	DU PONT (EI) DE	DD	6.00
143	DUKE ENERGY CP	DUK	4.80
144	DUN & BRADST-NEW	DNB	10.00
145	DYNEGY INC	DYN	8.00
146	EASTMAN CHEM CO	EMN	6.50
147	EASTMAN KODAK	EK	10.00
148	EATON CORP	ETN	9.33
149	EBAY INC	EBAY	14.64
150	ECOLAB INC	ECL	13.14
151	EDISON INTL	EIX	3.03
152	EL PASO CORP	EP	8.00
153	ELECTR ARTS INC	ERTS	16.73
154	EMC CORP -MASS	EMC	11.40
155	EMERSON ELEC CO	EMR	10.57
156	ENSCO INTL INC	ESV	22.00
157	ENTERGY CORP	ETR	7.25
158	EOG RES INC	EOG	7.67
159	EQT CORP	EQT	11.50
160	EQUIFAX INC	EFX	9.75
161	EQUITY RES PPTY	EQR	27.69
162	ESTEE LAUDER	EL	12.84
163	EXELON CORP	EXC	6.50
164	EXPEDIA INC	EXPE	16.67
165	EXPEDITORS INTL	EXPD	15.00
166	EXPRESS SCRIPTS	ESRX	16.92
167	EXXON MOBIL CRP	XOM	7.33
168	FAMILY DOLLAR	FDO	12.46
169	FASTENAL	FAST	13.00
170	FEDERATED INVST	FII	9.00
171	FEDEX CORP	FDX	10.33
172	FIDELITY NAT IN	FIS	13.71

## PacifiCorp Oregon

## Analysts' Consensus Growth Rates for S&amp;P 500 Companies

No.	Company Name	Ticker	Long-Term Growth Consensus Estimate (%)
173	FIFTH THIRD BK	FITB	5.20
174	FIRST HRZN NATL	FHN	7.50
175	FIRSTENERGY CP	FE	7.33
176	FISERV INC	FISV	13.00
177	FLIR SYSTEMS	FLIR	17.83
178	FLOWSERVE CORP	FLS	7.00
179	FLUOR CORP-NEW	FLR	10.25
180	FMC TECH INC	FTI	15.00
181	FORD MOTOR CO	F	5.00
182	FOREST LABS A	FRX	5.20
183	FORTUNE BRANDS	FO	9.00
184	FPL GRP	FPL	9.04
185	FRANKLIN RESOUR	BEN	10.00
186	FREETPT MC COP-B	FCX	7.65
187	FRONTIER COMMUN	FTR	2.93
188	GAMESTOP CORP	GME	16.16
189	GANNETT INC	GCI	3.67
190	GAP INC	GPS	10.06
191	GENL DYNAMICS	GD	9.67
192	GENL ELECTRIC	GE	1.90
193	GENL MILLS	GIS	7.75
194	GENUINE PARTS	GPC	8.33
195	GENWORTH FINL	GNW	10.00
196	GENZYME-GENERAL	GENZ	21.08
197	GILEAD SCIENCES	GILD	16.46
198	GOLDMAN SACHS	GS	11.20
199	GOODRICH CORP	GR	12.85
200	GOODYEAR TIRE	GT	12.00
201	GOOGLE INC-CL A	GOOG	23.46
202	GRAINGER W W	GWW	10.35
203	HALLIBURTON CO	HAL	3.35
204	HARLEY-DAVIDSON	HOG	9.43
205	HARMAN INTL IND	HAR	20.00
206	HARRIS CORP	HRS	13.67
207	HARTFORD FIN SV	HIG	9.50
208	HASBRO INC	HAS	10.00
209	HCP INC	HCP	6.50
210	HEALTH CR REIT	HCN	8.83
211	HEINZ (HJ) CO	HNZ	8.50
212	HERSHEY CO/THE	HSY	8.45
213	HESS CORP	HES	7.50
214	HEWLETT PACKARD	HPQ	10.81
215	HOME DEPOT	HD	11.01



## PacifiCorp Oregon

### Analysts' Consensus Growth Rates for S&P 500 Companies

No.	Company Name	Ticker	Long-Term Growth Consensus Estimate (%)
216	HONEYWELL INTL	HON	8.86
217	HORMEL FOODS CP	HRL	8.50
218	HOSPIRA INC	HSP	12.69
219	HOST HOTEL&RSRT	HST	(9.20)
220	HUDSON CITY BCP	HCBK	14.50
221	HUMANA INC NEW	HUM	16.41
222	HUNTINGTON BANC	HBAN	(8.42)
223	ILL TOOL WORKS	ITW	10.29
224	IMS HEALTH INC	RX	7.10
225	INTEGRYS ENERGY	TEG	8.25
226	INTEL CORP	INTC	12.91
227	INTERCONTINENTL	ICE	14.60
228	INTERPUBLIC GRP	IPG	9.67
229	INTL BUS MACH	IBM	12.76
230	INTL F & F	IFF	6.33
231	INTL GAME TECH	IGT	13.41
232	INTL PAPER	IP	2.03
233	INTUIT INC	INTU	14.80
234	INTUITIVE SURG	ISRG	21.83
235	INVESCO LTD	IVZ	11.00
236	IRON MOUNTAIN	IRM	18.00
237	ITT CORP	ITT	10.50
238	JABIL CIRCUIT	JBL	19.10
239	JACOBS ENGIN GR	JEC	12.80
240	JANUS CAP GRP	JNS	10.75
241	JDS UNIPHASE CP	JDSU	15.50
242	JOHNSON & JOHNS	JNJ	8.26
243	JOHNSON CONTROL	JCI	11.29
244	JPMORGAN CHASE	JPM	8.20
245	JUNIPER NETWRKS	JNPR	17.42
246	KB HOME	KBH	12.00
247	KELLOGG CO	K	8.80
248	KEYCORP NEW	KEY	5.75
249	KIMBERLY CLARK	KMB	8.32
250	KIMCO REALTY CO	KIM	4.86
251	KING PHARMACEUT	KG	9.50
252	KLA-TENCOR CORP	KLAC	9.33
253	KOHL'S CORP	KSS	12.63
254	KRAFT FOODS INC	KFT	10.10
255	KROGER CO	KR	9.00
256	L-3 COMM HLDGS	LLL	10.63
257	LABORATORY CP	LH	11.89
258	LEGG MASON INC	LM	14.00

## PacifiCorp Oregon

### Analysts' Consensus Growth Rates for S&P 500 Companies

No.	Company Name	Ticker	Long-Term Growth Consensus Estimate (%)
259	LEGGETT & PLATT	LEG	18.97
260	LENNAR CORP -A	LEN	32.38
261	LEXMARK INTL	LXK	3.33
262	LIFE TECHNOLOGS	LIFE	12.05
263	LILLY ELI & CO	LLY	4.10
264	LIMITED INC	LTD	10.44
265	LINCOLN NATL-IN	LNC	9.75
266	LINEAR TEC CORP	LLTC	14.99
267	LOCKHEED MARTIN	LMT	11.16
268	LORILLARD CO	LO	6.00
269	LOWES COS	LOW	9.57
270	LSI CORP	LSI	13.75
271	M&T BANK CORP	MTB	4.72
272	MACYS INC	M	9.67
273	MANITOWOC INC	MTW	10.33
274	MARATHON OIL CP	MRO	9.00
275	MARRIOTT INTL-A	MAR	6.35
276	MARSH &MCLENNAN	MMC	12.00
277	MARSHALL&ILSLEY	MI	7.71
278	MASCO	MAS	11.50
279	MASSEY EGY CPY	MEE	16.50
280	MASTERCARD INC	MA	17.18
281	MATTEL INC	MAT	10.00
282	MBIA INC	MBI	10.00
283	MCAFEE INC	MFE	14.18
284	MCDONALDS CORP	MCD	11.69
285	MCGRAW-HILL COS	MHP	8.00
286	MCKESSON CORP	MCK	12.13
287	MEADWESTVACO CP	MWV	10.00
288	MEDCO HLTH SOL	MHS	16.63
289	MEDTRONIC	MDT	10.65
290	MEMC ELEC MATRL	WFR	17.00
291	MERCK & CO INC	MRK	0.94
292	MEREDITH CORP	MDP	11.00
293	METLIFE INC	MET	10.40
294	METROPCS COMMUN	PCS	40.89
295	MICROCHIP TECH	MCHP	11.92
296	MICRON TECH	MU	9.75
297	MICROSOFT CORP	MSFT	10.62
298	MILLIPORE CORP	MIL	14.05
299	MOLEX INC	MOLX	15.00
300	MOLSON COORS-B	TAP	11.33
301	MONSANTO CO-NEW	MON	19.03

## PacifiCorp Oregon

### Analysts' Consensus Growth Rates for S&P 500 Companies

No.	Company Name	Ticker	Long-Term Growth Consensus Estimate (%)
302	MONSTER WWD INC	MWW	17.94
303	MOODYS CORP	MCO	12.00
304	MORGAN STANLEY	MS	11.00
305	MOTOROLA INC	MOT	7.14
306	MURPHY OIL	MUR	19.00
307	MYLAN INC	MYL	26.19
308	NABORS IND	NBR	28.00
309	NASDAQ OMX GRP	NDAQ	13.60
310	NATL OILWELL VR	NOV	7.00
311	NATL SEMICON	NSM	12.00
312	NETAPP INC	NTAP	13.78
313	NEWELL RUBBERMD	NWL	9.20
314	NEWMONT MINING	NEM	13.43
315	NEWS CORP INC-A	NWSA	7.95
316	NICOR INC	GAS	4.15
317	NIKE INC-B	NKE	11.63
318	NISOURCE INC	NI	2.75
319	NOBLE ENERGY	NBL	6.00
320	NORDSTROM INC	JWN	11.00
321	NORFOLK SOUTHRN	NSC	13.00
322	NORTHEAST UTIL	NU	8.00
323	NORTHERN TRUST	NTRS	10.49
324	NORTHROP GRUMMN	NOC	10.15
325	NOVELL INC	NOVL	10.75
326	NOVELLUS SYS	NVLS	12.67
327	NUCOR CORP	NUE	5.00
328	NVIDIA CORP	NVDA	11.33
329	NY TIMES A	NYT	7.50
330	NYSE EURONEXT	NYX	11.00
331	O REILLY AUTO	ORLY	15.57
332	OCCIDENTAL PET	OXY	6.50
333	OFFICE DEPOT	ODP	9.90
334	OMNICOM GRP	OMC	10.42
335	ORACLE CORP	ORCL	12.04
336	OWENS-ILLINOIS	OI	5.00
337	PACCAR INC	PCAR	8.75
338	PACTIV CORP	PTV	7.00
339	PALL CORP	PLL	14.67
340	PARKER HANNIFIN	PH	9.00
341	PATTERSON COS	PDCO	12.67
342	PAYCHEX INC	PAYX	12.00
343	PEABODY ENERGY	BTU	11.00
344	PENNEY (JC) INC	JCP	3.61

## PacifiCorp Oregon

### Analysts' Consensus Growth Rates for S&P 500 Companies

No.	Company Name	Ticker	Long-Term Growth Consensus Estimate (%)
345	PEOPLES UTD FIN	PBCT	9.50
346	PEPCO HLDGS	POM	4.00
347	PEPSI BOTTLING	PBG	7.95
348	PEPSICO INC	PEP	11.53
349	PERKINELMER INC	PKI	12.33
350	PFIZER INC	PFE	(1.50)
351	PG&E CORP	PCG	7.10
352	PHILIP MORRIS	PM	9.67
353	PINNACLE WEST	PNW	6.33
354	PIONEER NAT RES	PXD	13.67
355	PLUM CREEK TMBR	PCL	8.00
356	PNC FINL SVC CP	PNC	8.00
357	POLO RALPH LAUR	RL	13.25
358	PPG INDS INC	PPG	7.50
359	PPL CORP	PPL	9.00
360	PRAXAIR INC	PX	9.00
361	PRECISION CASTP	PCP	15.29
362	PRINCIPAL FINL	PFG	11.00
363	PROCTER & GAMBL	PG	9.56
364	PROGRESS ENERGY	PGN	4.67
365	PROGRESSIVE COR	PGR	7.26
366	PROLOGIS	PLD	10.99
367	PRUDENTIAL FINL	PRU	12.00
368	PUBLIC STORAGE	PSA	4.88
369	PUBLIC SV ENTRP	PEG	5.75
370	PULTE HOMES INC	PHM	11.50
371	QLOGIC CORP	QLGC	10.80
372	QUALCOMM INC	QCOM	15.55
373	QUANTA SERVICES	PWR	11.67
374	QUEST DIAGNOSTC	DGX	12.44
375	QUESTAR	STR	10.00
376	QWEST COMM INTL	Q	1.17
377	RADIOSHACK CORP	RSH	9.48
378	RANGE RESOURCES	RRC	11.63
379	RAYTHEON CO	RTN	10.17
380	RED HAT INC	RHT	18.44
381	REGIONS FINL CP	RF	5.67
382	REPUBLIC SVCS	RSG	12.50
383	REYNOLDS AMER	RAI	12.15
384	ROBT HALF INTL	RHI	12.50
385	ROCKWELL AUTOMT	ROK	8.25
386	ROCKWELL COLLIN	COL	16.85
387	ROWAN COS INC	RDC	12.50

## PacifiCorp Oregon

### Analysts' Consensus Growth Rates for S&P 500 Companies

No.	Company Name	Ticker	Long-Term Growth Consensus Estimate (%)
388	RYDER SYS	R	1.67
389	SAFEWAY INC	SWY	10.00
390	SALESFORCE.COM	CRM	32.50
391	SANDISK CORP	SNDK	19.67
392	SARA LEE	SLE	6.33
393	SCANA CORP	SCG	4.60
394	SCHERING PLOUGH	SGP	8.50
395	SCHLUMBERGER LT	SLB	9.00
396	SCHWAB(CHAS)	SCHW	16.53
397	SCRIPPS NETWRKS	SNI	11.16
398	SEALED AIR CORP	SEE	8.50
399	SEARS HLDG CP	SHLD	10.00
400	SEMPRA ENERGY	SRE	6.50
401	SHERWIN WILLIAM	SHW	11.50
402	SIGMA ALDRICH	SIAL	8.80
403	SIMON PROPERTY	SPG	5.44
404	SLM CORP	SLM	13.50
405	SMITH INTL	SII	5.00
406	SMUCKER JM	SJM	8.00
407	SNAP-ON INC	SNA	11.33
408	SOUTHN COMPANY	SO	7.33
409	SOUTHWEST AIR	LUV	13.67
410	SOUTHWESTRN ENE	SWN	40.50
411	SPECTRA ENERGY	SE	7.50
412	SPRINT NEXTEL	S	14.50
413	ST JUDE MEDICAL	STJ	14.06
414	STANLEY WORKS	SWK	10.00
415	STAPLES INC	SPLS	13.57
416	STARBUCKS CORP	SBUX	16.10
417	STARWOOD HOTELS	HOT	(6.33)
418	STATE ST CORP	STT	10.89
419	STERICYCLE INC	SRCL	18.75
420	STRYKER CORP	SYK	14.18
421	SUN MICROSYS	JAVA	7.50
422	SUNOCO INC	SUN	5.00
423	SUNTRUST BKS	STI	7.75
424	SUPERVALU INC	SVU	6.50
425	SYMANTEC CORP	SYMC	9.73
426	SYSCO CORP	SYY	9.70
427	T ROWE PRICE	TROW	10.80
428	TARGET CORP	TGT	13.39
429	TECO ENERGY	TE	10.20
430	TELLABS INC	TLAB	8.50

## PacifiCorp Oregon

### Analysts' Consensus Growth Rates for S&P 500 Companies

No.	Company Name	Ticker	Long-Term Growth Consensus Estimate (%)
431	TENET HEALTH	THC	9.33
432	TERADATA CORP	TDC	8.50
433	TERADYNE INC	TER	16.00
434	TESORO CORP	TSO	15.00
435	TEXAS INSTRS	TXN	14.36
436	TEXTRON INC	TXT	10.78
437	THERMO FISHER	TMO	13.98
438	TIFFANY & CO	TIF	8.80
439	TIME WARNER CAB	TWC	10.28
440	TIME WARNER INC	TWX	9.19
441	TITANIUM METALS	TIE	(4.90)
442	TJX COS INC NEW	TJX	12.13
443	TORCHMARK CORP	TMK	8.75
444	TOTAL SYS SVC	TSS	10.60
445	TRAVELERS COS	TRV	2.20
446	TYSON FOODS A	TSN	10.00
447	UNION PAC CORP	UNP	10.80
448	UNITEDHEALTH GP	UNH	13.19
449	UNUM GROUP	UNM	10.00
450	US BANCORP	USB	7.84
451	UTD PARCEL SRVC	UPS	11.43
452	UTD STATES STL	X	7.70
453	UTD TECHS CORP	UTX	8.58
454	V F CORP	VFC	10.87
455	VALERO ENERGY	VLO	(5.68)
456	VARIAN MEDICAL	VAR	16.00
457	VENTAS INC	VTR	4.33
458	VERISIGN INC	VRSN	13.60
459	VERIZON COMM	VZ	5.52
460	VIACOM INC-B	VIA.B	10.57
461	VORNADO RLTY TR	VNO	4.29
462	VULCAN MATLS CO	VMC	(0.73)
463	WALGREEN CO	WAG	12.84
464	WAL-MART STORES	WMT	10.99
465	WASTE MGMT-NEW	WM	10.33
466	WATERS CORP	WAT	12.32
467	WATSON PHARMA	WPI	10.72
468	WELLPOINT INC	WLP	11.71
469	WELLS FARGO-NEW	WFC	11.80
470	WESTERN DIGITAL	WDC	11.00
471	WESTERN UNION	WU	12.64
472	WEYERHAEUSER CO	WY	5.33
473	WHIRLPOOL CORP	WHR	2.60

## PacifiCorp Oregon

### Analysts' Consensus Growth Rates for S&P 500 Companies

No.	Company Name	Ticker	Long-Term Growth Consensus Estimate (%)
474	WHOLE FOODS MKT	WFMI	16.25
475	WILLIAMS COS	WMB	10.00
476	WINDSTREAM CORP	WIN	3.11
477	WISC ENERGY CP	WEC	8.43
478	WYETH	WYE	3.75
479	WYNDHAM WORLDWD	WYN	15.00
480	WYNN RESRTS LTD	WYNN	(15.66)
481	XCEL ENERGY INC	XEL	5.33
482	XEROX CORP	XRX	7.00
483	XILINX INC	XLNX	12.52
484	XL CAP LTD-A	XL	10.50
485	XTO ENERGY INC	XTO	11.00
486	YAHOO! INC	YHOO	14.85
487	YUM! BRANDS INC	YUM	11.59
488	ZIMMER HOLDINGS	ZMH	10.73
489	ZIONS BANCORP	ZION	7.71
	<b>Average</b>		<b>10.54</b>

Source: www.zacks.com (Aug 11, 2009)





Docket No. UE-210  
Exhibit PPL/218  
Witness: Samuel C. Hadaway

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of Samuel C. Hadaway  
Corrections & Updates to Mr. Storm' s Discounted Cash Flow Analysis**

**August 2009**

**PacifiCorp Oregon**  
**Corrections & Updates to Storm Discounted Cash Flow Analysis**  
**Summary Of Results**

	<b>Base Case</b>	<b>Case 1</b>	<b>Case 2</b>	<b>Case 3</b>	<b>Case 4</b>
Company	Reproduction of Mr. Storm's Three-Stage DCF Analysis	Base Case with Individual Company Average	Case 1 with No Div Cut in 2015	Case 2 Excluding GDP Growth Adjustment (GDP Growth=5.16%)	Case 3 with Hadaway GDP Growth (GDP Growth=6.2%)
1 Con. Edison		10.3%	10.6%	10.8%	11.5%
2 DTE Energy Co.		11.4%	11.7%	11.9%	12.6%
3 Empire District		11.7%	12.1%	12.3%	12.9%
4 Entergy Corp.		8.7%	8.9%	9.1%	9.8%
5 FirstEnergy		10.3%	10.6%	10.8%	11.5%
6 FPL Group, Inc.		7.9%	8.1%	8.3%	9.0%
7 IDACORP		9.2%	9.4%	9.6%	10.3%
8 Progress Energy		10.4%	10.7%	10.9%	11.5%
9 Southern Co.		9.8%	10.1%	10.3%	11.0%
10 Vectren Corp.		10.1%	10.4%	10.6%	11.2%
11 Wisconsin Energy		9.3%	9.6%	9.8%	10.4%
12 Xcel Energy Inc.		9.8%	10.1%	10.3%	11.0%
Average of "Composite Company"	<b>9.6%</b>				
Individual Company Average		<b>9.9%</b>	<b>10.2%</b>	<b>10.4%</b>	<b>11.1%</b>
Individual Company Median		<b>10.0%</b>	<b>10.3%</b>	<b>10.5%</b>	<b>11.1%</b>

Source: Value Line Investment Survey, Electric Utility (East), May 29, 2009; (Central), Jun 26, 2009; (West), May 8, 2009.

Notes:

**Base Case:** See Storm workpapers and BaseCase&Case1 backup tab in this spreadsheet.

**Case 1:** Results calculated for each individual company. Average and median values calculated based on individual company results.

**Case 2:** Dividend cut contained in Mr. Storm's analysis in 2015 is eliminated and long-term growth is assumed to begin in 2015.

See Case2 backup tab in this spreadsheet.

**Case 3:** 5% reduction to GDP growth rate does not apply to utilities in comparable group and is eliminated.

See Case3 backup tab in this spreadsheet.

**Case 4:** See Hadaway Exhibit PPL/204

See Case4 backup tab in this spreadsheet.

**PacifiCorp Oregon**  
**Corrections & Updates to Storm Discounted Cash Flow Analysis**  
**Individual Company Average vs. Average of Composite Company**

Company	(1) 2009 P0	(2) 2009 D1	(3) 2010 D2	(4) 2011 D3	(5) 2012 D4	(6) 2013 D5	(7) 2014 D6	(8) 2015 D7	(9) 2016 D8	(10) 2016 D8	(11) 2048 D40	(12) IRR
1 Con. Edison	-36.71	2.36	2.38	2.40	2.42	2.44	2.46	2.38	2.50	....	318.19	10.31%
2 DTE Energy Co.	-31.33	2.12	2.12	2.27	2.43	2.50	2.58	2.48	2.61	....	309.96	11.38%
3 Empire District	-16.29	1.28	1.28	1.33	1.38	1.40	1.42	1.37	1.44	....	133.25	11.72%
4 Entergy Corp.	-76.59	3.00	3.20	3.38	3.55	3.80	4.05	3.90	4.10	....	477.60	8.68%
5 FirstEnergy	-38.67	2.20	2.20	2.37	2.53	2.65	2.77	2.67	2.80	....	287.13	10.30%
6 FPL Group, Inc.	-56.85	1.89	2.00	2.08	2.16	2.30	2.44	2.35	2.47	....	343.98	7.90%
7 IDACORP	-25.42	1.20	1.20	1.20	1.20	1.20	1.20	1.16	1.22	....	270.38	9.16%
8 Progress Energy	-37.11	2.48	2.50	2.52	2.53	2.56	2.59	2.49	2.62	....	278.24	10.36%
9 Southern Co.	-30.79	1.73	1.80	1.86	1.92	2.00	2.08	2.01	2.11	....	176.26	9.82%
10 Vectren Corp.	-23.24	1.35	1.39	1.43	1.46	1.51	1.56	1.50	1.58	....	178.62	10.08%
11 Wisconsin Energy	-40.14	1.35	1.55	1.70	1.86	2.15	2.44	2.35	2.47	....	295.08	9.28%
12 Xcel Energy Inc.	-17.98	0.97	1.00	1.03	1.07	1.10	1.13	1.09	1.15	....	146.04	9.83%
<b>Composite Average</b>	<b>-35.93</b>	<b>1.83</b>	<b>1.89</b>	<b>1.96</b>	<b>2.04</b>	<b>2.13</b>	<b>2.23</b>	<b>2.15</b>	<b>2.25</b>	<b>....</b>	<b>267.89</b>	<b>9.62%</b>
<b>Individual Co Average</b>												<b>9.90%</b>
<b>Individual Co Median</b>												<b>9.96%</b>

Notes:

- (1) Initial price data from Storm workpapers.
- (2)-(7) Dividend data from Storm workpapers based on Value Line growth rates.
- (8) Shaded area in 2015 indicates dividend cut contained in Mr. Storm's analysis.
- (9)-(10) Dividends assumed to grow at long-term GDP rate after 2015 through 2048.
- (11) Amount in last year (2048) also includes terminal price.
- (12) IRR is the "internal rate of return," which is the return expected if the initial price in column 1 is paid and the dividends and terminal price shown in columns 2-11 are received.



Docket No. UE-210  
Exhibit PPL/219  
Witness: Samuel C. Hadaway

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of Samuel C. Hadaway**

**Updated Gorman ROE Results**

**August 2009**

## PacifiCorp Oregon Summary of Updated Gorman ROE Results

	(1)	(2)
	<b>Summary of Results</b>	
	Gorman Initial ROE	<b>Updated ROE</b>
<b>DCF Models</b>		
<b>Constant Growth DCF (Analysts' Growth)</b>	11.68%	<b>11.68%</b>
<b>Constant Growth DCF (Sustainable Growth)</b>	10.62%	<b>10.62%</b>
<b>Multi-Stage DCF</b>	10.96%	<b>11.74%</b>
<b>Average DCF</b>	11.09%	<b>11.35%</b>
<b>Risk Premium Models</b>		
<b>Treasury Bond</b>	9.84%	<b>10.54%</b>
<b>Current Single-A Utility Bond</b>	10.17%	<b>10.66%</b>
<b>Average Risk Premium</b>	10.00%	<b>10.60%</b>
<b>Average CAPM</b>	8.60%	<b>NA</b>
<b>ROE (Recommended)</b>	10.00%	<b>NA</b>
<b>ROE (excluding CAPM)</b>	10.65%	<b>11.05%</b>

Notes:

Column 1: Gorman, pages 28, 33, and 39.

Column 2: Constant Growth DCF results not changed; see page 2 of this Exhibit for updated Multi-Stage DCF result; see average of results from pages 3 and 5 of this Exhibit

for updated Risk Premium result; CAPM results are not reliable and are excluded as discussed in my testimony.

**PacifiCorp Oregon**  
**Gorman Multi-Stage Growth DCF Analysis (with Updated Long-Term GDP Growth)**

No.	Company	(1) Price P <sub>0</sub>	(2) Dividend D <sub>0</sub>	(3) First Stage Growth (EPS)	(5) Second Stage Growth					(7) Year 9	(8) Year 10	(9) Third Stage Growth (GDP)	(10) Updated Cost of Equity
					(4) Year 6	(6) Year 7	(6) Year 8	(6) Year 9	(6) Year 10				
1	ALLETE	\$26.62	\$1.76	5.00%	5.20%	5.40%	5.60%	5.80%	6.00%	6.20%	6.20%	12.75%	
2	Alliant Energy Co.	\$24.08	\$1.50	5.75%	5.83%	5.90%	5.98%	6.05%	6.13%	6.20%	6.20%	12.64%	
3	Con. Edison	\$37.12	\$2.36	2.86%	3.42%	3.97%	4.53%	5.09%	5.64%	6.20%	6.20%	11.72%	
4	DPL Inc.	\$22.34	\$1.14	7.72%	7.47%	7.21%	6.96%	6.71%	6.45%	6.20%	6.20%	12.13%	
5	DTE Energy Co.	\$29.67	\$2.12	4.33%	4.64%	4.95%	5.27%	5.58%	5.89%	6.20%	6.20%	13.01%	
6	Duke Energy	\$14.03	\$0.92	4.33%	4.64%	4.95%	5.27%	5.58%	5.89%	6.20%	6.20%	12.44%	
7	Edison Internat.	\$29.21	\$1.24	4.16%	4.50%	4.84%	5.18%	5.52%	5.86%	6.20%	6.20%	10.15%	
8	Entergy Corp.	\$70.85	\$3.00	8.09%	7.78%	7.46%	7.15%	6.83%	6.52%	6.20%	6.20%	11.24%	
9	FPL Group, Inc.	\$53.92	\$1.89	9.61%	9.04%	8.47%	7.91%	7.34%	6.77%	6.20%	6.20%	10.78%	
10	IDACORP	\$23.66	\$1.20	5.00%	5.20%	5.40%	5.60%	5.80%	6.00%	6.20%	6.20%	11.20%	
11	NSTAR	\$30.82	\$1.50	6.36%	6.33%	6.31%	6.28%	6.25%	6.23%	6.20%	6.20%	11.41%	
12	PG&E Corp.	\$37.34	\$1.68	6.88%	6.77%	6.65%	6.54%	6.43%	6.31%	6.20%	6.20%	11.17%	
13	Portland General	\$17.88	\$0.98	6.60%	6.53%	6.47%	6.40%	6.33%	6.27%	6.20%	6.20%	12.16%	
14	Progress Energy	\$35.36	\$2.48	5.13%	5.31%	5.49%	5.67%	5.84%	6.02%	6.20%	6.20%	13.20%	
15	Sempra Energy	\$45.95	\$1.56	6.66%	6.58%	6.51%	6.43%	6.35%	6.28%	6.20%	6.20%	9.89%	
16	Southern Co.	\$29.60	\$1.75	5.39%	5.53%	5.66%	5.80%	5.93%	6.07%	6.20%	6.20%	12.18%	
17	Vectren Corp.	\$21.84	\$1.34	6.53%	6.48%	6.42%	6.37%	6.31%	6.26%	6.20%	6.20%	12.84%	
18	Wisconsin Energy	\$39.76	\$1.35	8.82%	8.38%	7.95%	7.51%	7.07%	6.64%	6.20%	6.20%	10.43%	
19	Xcel Energy Inc.	\$18.01	\$0.95	5.85%	5.91%	5.97%	6.03%	6.08%	6.14%	6.20%	6.20%	11.68%	
	Average	\$32.00	\$1.62	6.06%	6.08%	6.10%	6.13%	6.15%	6.18%	6.20%	6.20%	11.74%	

Notes:

Columns 1-3: ICNU-CUB/312.

Columns 4-8: Linear interpolation between columns 3 and 9.

Column 9: PPL/204.

Column 10: The internal rate of return implied by the price in column 1 and dividends for 150 periods. The initial dividend shown in column 2 is assumed to grow for the first five periods at the rate in column 3, then at the rate in columns 4-8 for years 6-10, then at the rate in column 9 for the remaining periods.

**PacifiCorp Oregon**  
Update of Gorman Risk Premium Analysis - Treasury Bond

	(1)	(2)	(3)
	TREASURY BOND YIELD	AUTHORIZED ELECTRIC RETURNS	INDICATED RISK PREMIUM
1986	7.78%	13.93%	6.15%
1987	8.59%	12.99%	4.40%
1988	8.96%	12.79%	3.83%
1989	8.45%	12.97%	4.52%
1990	8.61%	12.70%	4.09%
1991	8.14%	12.55%	4.41%
1992	7.67%	12.09%	4.42%
1993	6.59%	11.41%	4.82%
1994	7.37%	11.34%	3.97%
1995	6.88%	11.55%	4.67%
1996	6.71%	11.39%	4.68%
1997	6.61%	11.40%	4.79%
1998	5.58%	11.66%	6.08%
1999	5.87%	10.77%	4.90%
2000	5.94%	11.43%	5.49%
2001	5.49%	11.09%	5.60%
2002	5.43%	11.16%	5.73%
2003	4.96%	10.97%	6.01%
2004	5.05%	10.75%	5.70%
2005	4.65%	10.54%	5.89%
2006	4.91%	10.36%	5.45%
2007	4.84%	10.36%	5.52%
2008	4.28%	10.46%	6.18%
Q1 2009	3.45%	10.31%	6.86%
<b>AVERAGE</b>	<b>6.37%</b>	<b>11.54%</b>	<b>5.17%</b>

**INDICATED COST OF EQUITY**

PROJECTED TREASURY BOND YIELD*	4.60%
MOODY'S AVG ANNUAL YIELD DURING STUDY	6.37%
INTEREST RATE DIFFERENCE	<u>-1.77%</u>

INTEREST RATE CHANGE COEFFICIENT	<u>-43.57%</u>
ADJUSTMENT TO AVG RISK PREMIUM	0.77%

BASIC RISK PREMIUM	5.17%
INTEREST RATE ADJUSTMENT	<u>0.77%</u>
EQUITY RISK PREMIUM	<u>5.94%</u>

PROJECTED TREASURY BOND YIELD*	4.60%
<b>INDICATED EQUITY RETURN</b>	<b><u><u>10.54%</u></u></b>

Notes:

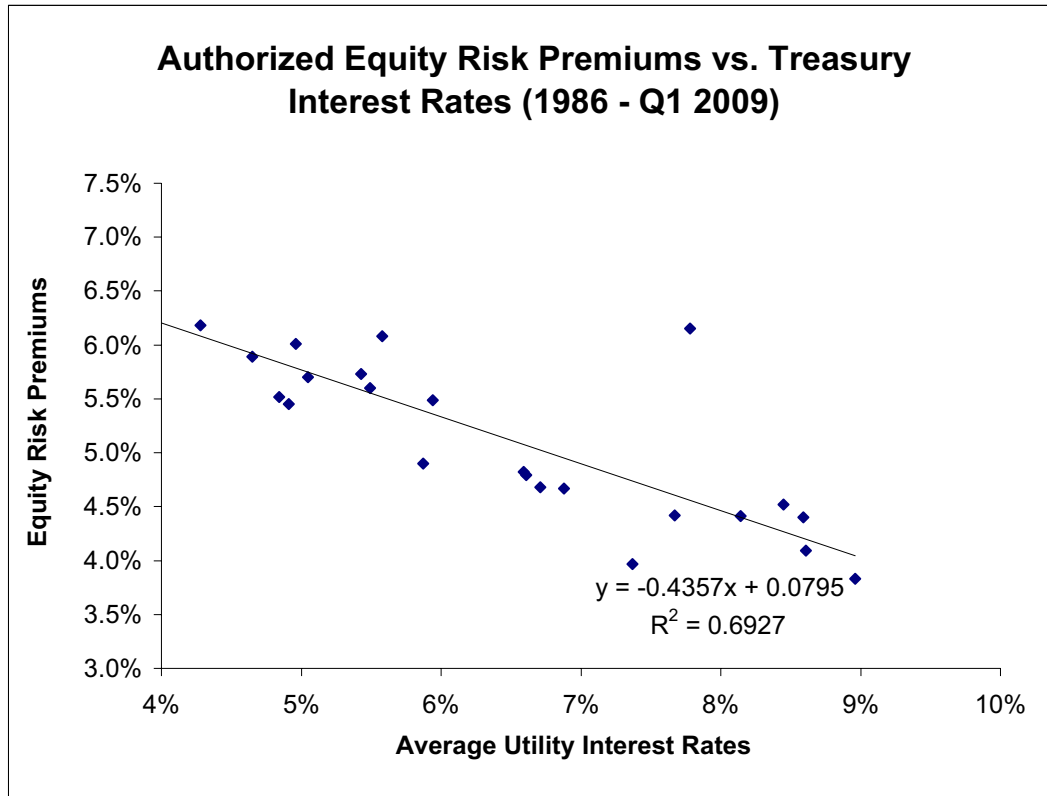
Columns 1-3: ICNU-CUB/314.

\*Gorman page 33 for Projected Treasury Bond Yield .

See regression data on next page for derivation of "Interest Rate Change Coefficient."



**PacifiCorp Oregon**  
Update of Gorman Risk Premium Analysis - Treasury Bond



**PacifiCorp Oregon**  
Update of Gorman Risk Premium Analysis - Utility Bond

	(1) MOODY'S "A" RATED PUBLIC UTILITY BOND YIELD	(2) AUTHORIZED ELECTRIC RETURNS	(3) INDICATED RISK PREMIUM
1986	9.58%	13.93%	4.35%
1987	10.10%	12.99%	2.89%
1988	10.49%	12.79%	2.30%
1989	9.77%	12.97%	3.20%
1990	9.86%	12.70%	2.84%
1991	9.36%	12.55%	3.19%
1992	8.69%	12.09%	3.40%
1993	7.59%	11.41%	3.82%
1994	8.31%	11.34%	3.03%
1995	7.89%	11.55%	3.66%
1996	7.75%	11.39%	3.64%
1997	7.60%	11.40%	3.80%
1998	7.04%	11.66%	4.62%
1999	7.62%	10.77%	3.15%
2000	8.24%	11.43%	3.19%
2001	7.76%	11.09%	3.33%
2002	7.37%	11.16%	3.79%
2003	6.58%	10.97%	4.39%
2004	6.16%	10.75%	4.59%
2005	5.65%	10.54%	4.89%
2006	6.07%	10.36%	4.29%
2007	6.07%	10.36%	4.29%
2008	6.53%	10.46%	3.93%
Q1 2009	6.37%	10.31%	3.94%
<b>AVERAGE</b>	<b>7.85%</b>	<b>11.54%</b>	<b>3.69%</b>

**INDICATED COST OF EQUITY**

CURRENT "A" UTILITY BOND YIELD*	6.46%
MOODY'S AVG ANNUAL YIELD DURING STUDY	7.85%
INTEREST RATE DIFFERENCE	<u>-1.39%</u>

INTEREST RATE CHANGE COEFFICIENT	<u>-36.45%</u>
ADJUSTMENT TO AVG RISK PREMIUM	0.51%

BASIC RISK PREMIUM	3.69%
INTEREST RATE ADJUSTMENT	<u>0.51%</u>
EQUITY RISK PREMIUM	<u>4.20%</u>

CURRENT "A" UTILITY BOND YIELD*	<u>6.46%</u>
<b>INDICATED EQUITY RETURN</b>	<b><u><u>10.66%</u></u></b>

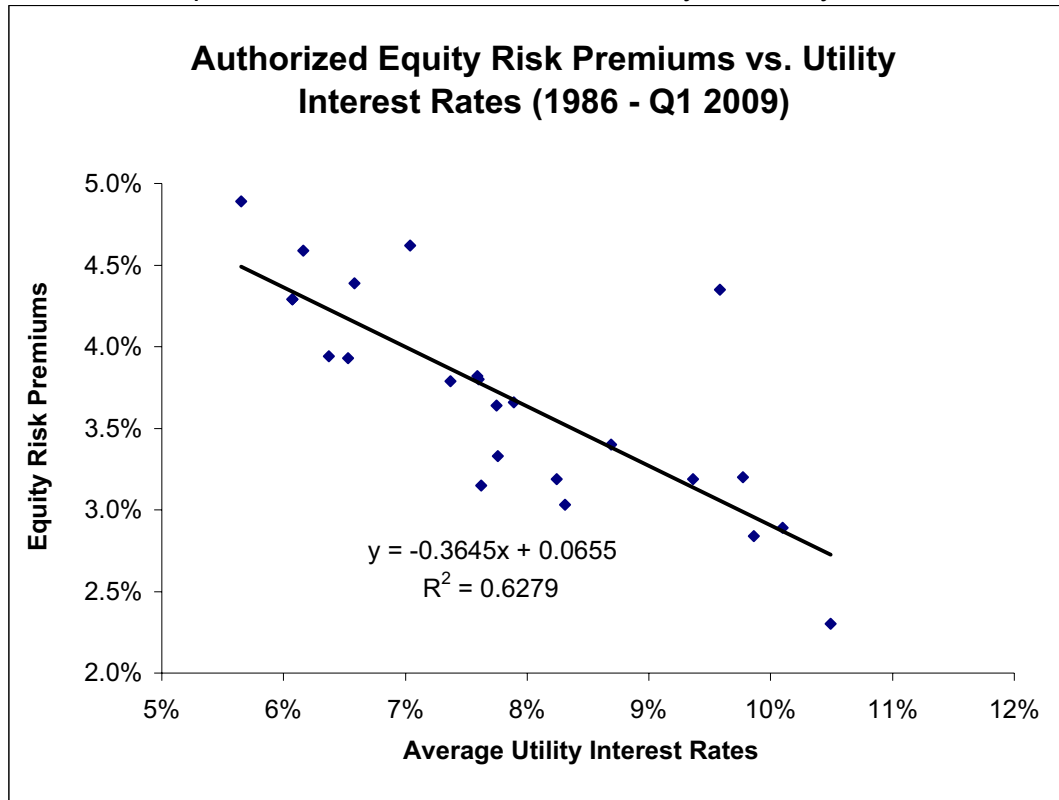
Source:

Columns 1-3: ICNU-CUB/315.

\*Gorman page 33 for Current "Baa" Utility Bond Yield.

See regression data on next page for derivation of "Interest Rate Change Coefficient."

**PacifiCorp Oregon**  
Update of Gorman Risk Premium Analysis - Utility Bond





Docket No. UE-210  
Exhibit PPL/220  
Witness: Samuel C. Hadaway

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of Samuel C. Hadaway**

**Updated Discounted Cash Flow Analysis**

**August 2009**

**PacifiCorp Oregon**  
**Discounted Cash Flow Analysis**  
**Summary Of DCF Model Results**

Company	Constant Growth DCF Model Analysts' Growth Rates	Constant Growth DCF Model Long-Term GDP Growth	Low Near-Term Growth Two-Stage Growth DCF Model
1 ALLETE	11.3%	12.5%	11.9%
2 Alliant Energy Co.	11.0%	12.4%	12.6%
3 Con. Edison	9.7%	12.6%	11.8%
4 DPL Inc.	13.3%	11.3%	11.0%
5 DTE Energy Co.	11.9%	12.9%	12.8%
6 Duke Energy	11.2%	12.9%	12.6%
7 Edison Internat.	7.8%	10.3%	10.3%
8 Entergy Corp.	11.6%	10.4%	10.4%
9 FPL Group, Inc.	13.0%	9.6%	9.6%
10 IDACORP	9.7%	11.0%	10.9%
11 NSTAR	11.9%	11.2%	11.4%
12 PG&E Corp.	11.5%	10.8%	11.1%
13 Portland General	11.4%	11.7%	11.6%
14 Progress Energy	11.9%	13.0%	12.1%
15 Sempra Energy	9.5%	9.6%	9.8%
16 Southern Co.	11.4%	12.1%	11.8%
17 Vectren Corp.	12.1%	12.1%	11.7%
18 Wisconsin Energy	12.0%	9.8%	10.6%
19 Xcel Energy Inc.	11.5%	11.6%	11.3%
<b>GROUP AVERAGE</b>	11.2%	11.5%	11.3%
<b>GROUP MEDIAN</b>	11.5%	11.6%	11.4%

Source: Value Line Investment Survey, Electric Utility (East), May 29, 2009; (Central), Jun 26, 2009; (West), Aug 7, 2009.

NOTE: SEE PAGE 5 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.

**PacifiCorp Oregon**  
**Constant Growth DCF Model**  
**Analysts' Growth Rates**

Company	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Recent Price(P0)	Div(D1)	Next Year's Dividend Yield	Analysts' Estimated Growth			Average Growth (Cols 4-6)	ROE K=Div Yld+G (Cols 3+7)
				Value Line	Zacks	Thomson		
1 ALLETE	28.25	1.78	6.30%	NA	4.00%	6.00%	5.00%	11.3%
2 Alliant Energy Co.	24.87	1.55	6.23%	4.50%	5.30%	4.60%	4.80%	11.0%
3 Con. Edison	36.94	2.37	6.42%	2.50%	4.00%	3.33%	3.28%	9.7%
4 DPL Inc.	22.74	1.16	5.10%	8.00%	7.40%	9.33%	8.24%	13.3%
5 DTE Energy Co.	31.70	2.12	6.69%	7.50%	5.00%	3.00%	5.17%	11.9%
6 Duke Energy	14.38	0.96	6.68%	5.00%	4.80%	3.67%	4.49%	11.2%
7 Edison Internat.	30.49	1.27	4.15%	3.50%	6.30%	1.05%	3.62%	7.8%
8 Entergy Corp.	74.35	3.10	4.17%	6.00%	7.30%	9.02%	7.44%	11.6%
9 FPL Group, Inc.	56.43	1.95	3.45%	10.00%	9.00%	9.59%	9.53%	13.0%
10 IDACORP	24.84	1.20	4.83%	4.50%	5.00%	5.00%	4.83%	9.7%
11 NSTAR	31.31	1.58	5.05%	8.00%	6.40%	6.25%	6.88%	11.9%
12 PG&E Corp.	37.53	1.74	4.64%	6.50%	7.10%	6.92%	6.84%	11.5%
13 Portland General	18.69	1.03	5.51%	3.50%	6.70%	7.60%	5.93%	11.4%
14 Progress Energy	36.58	2.49	6.81%	6.00%	4.70%	4.50%	5.07%	11.9%
15 Sempra Energy	48.35	1.64	3.39%	5.50%	6.50%	6.33%	6.11%	9.5%
16 Southern Co.	30.07	1.77	5.87%	4.50%	7.30%	4.83%	5.54%	11.4%
17 Vectren Corp.	23.23	1.37	5.90%	5.50%	6.80%	6.43%	6.24%	12.1%
18 Wisconsin Energy	40.33	1.45	3.60%	8.00%	8.40%	8.72%	8.37%	12.0%
19 Xcel Energy Inc.	18.19	0.99	5.42%	6.50%	5.30%	6.58%	6.13%	11.5%
GROUP AVERAGE	33.12	1.66	5.27%	5.86%	6.17%	5.93%	5.97%	11.2%
GROUP MEDIAN			5.42%					11.5%

Source: Value Line Investment Survey, Electric Utility (East), May 29, 2009; (Central), Jun 26, 2009; (West), Aug 7, 2009.

NOTE: SEE PAGE 5 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.

**PacifiCorp Oregon**  
**Constant Growth DCF Model**  
**Long-Term GDP Growth**

	(9)	(10)	(11)	(12)	(13)
Company	Recent	Next	Dividend	GDP	ROE
	Price(P0)	Year's Div(D1)	Yield	K=Div Growth (Cols 11+12)	Yid+G
1 ALLETE	28.25	1.78	6.30%	6.20%	12.5%
2 Alliant Energy Co.	24.87	1.55	6.23%	6.20%	12.4%
3 Con. Edison	36.94	2.37	6.42%	6.20%	12.6%
4 DPL Inc.	22.74	1.16	5.10%	6.20%	11.3%
5 DTE Energy Co.	31.70	2.12	6.69%	6.20%	12.9%
6 Duke Energy	14.38	0.96	6.68%	6.20%	12.9%
7 Edison Internat.	30.49	1.27	4.15%	6.20%	10.3%
8 Entergy Corp.	74.35	3.10	4.17%	6.20%	10.4%
9 FPL Group, Inc.	56.43	1.95	3.45%	6.20%	9.6%
10 IDACORP	24.84	1.20	4.83%	6.20%	11.0%
11 NSTAR	31.31	1.58	5.05%	6.20%	11.2%
12 PG&E Corp.	37.53	1.74	4.64%	6.20%	10.8%
13 Portland General	18.69	1.03	5.51%	6.20%	11.7%
14 Progress Energy	36.58	2.49	6.81%	6.20%	13.0%
15 Sempra Energy	48.35	1.64	3.39%	6.20%	9.6%
16 Southern Co.	30.07	1.77	5.87%	6.20%	12.1%
17 Vectren Corp.	23.23	1.37	5.90%	6.20%	12.1%
18 Wisconsin Energy	40.33	1.45	3.60%	6.20%	9.8%
19 Xcel Energy Inc.	18.19	0.99	5.42%	6.20%	11.6%
GROUP AVERAGE	33.12	1.66	5.27%	6.20%	11.5%
GROUP MEDIAN			5.42%		11.6%

Source: Value Line Investment Survey, Electric Utility (East), May 29, 2009; (Central), Jun 26, 2009; (West), Aug 7, 2009.

NOTE: SEE PAGE 5 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.



**PacifiCorp Oregon**  
**Low Near-Term Growth**  
**Two-Stage Growth DCF Model**

Company	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	
	Next Year's Div	2013 Div	Annual Change to 2013	Recent Price	CASH FLOWS					Year 5 Div	Year 5-150 Growth	ROE=Internal Rate of Return (Yrs 0-150)
					Year 1 Div	Year 2 Div	Year 3 Div	Year 4 Div	Year 5 Div			
1 ALLETE	1.78	1.92	0.05	-28.25	1.78	1.83	1.87	1.92	2.04	6.20%	11.9%	
2 Alliant Energy Co.	1.55	1.92	0.12	-24.87	1.55	1.67	1.80	1.92	2.04	6.20%	12.6%	
3 Con. Edison	2.37	2.44	0.02	-36.94	2.37	2.39	2.42	2.44	2.59	6.20%	11.8%	
4 DPL Inc.	1.16	1.30	0.05	-22.74	1.16	1.21	1.25	1.30	1.38	6.20%	11.0%	
5 DTE Energy Co.	2.12	2.50	0.13	-31.70	2.12	2.25	2.37	2.50	2.66	6.20%	12.8%	
6 Duke Energy	0.96	1.10	0.05	-14.38	0.96	1.01	1.05	1.10	1.17	6.20%	12.6%	
7 Edison Internat.	1.27	1.50	0.08	-30.49	1.27	1.34	1.42	1.50	1.59	6.20%	10.3%	
8 Entergy Corp.	3.10	3.80	0.23	-74.35	3.10	3.33	3.57	3.80	4.04	6.20%	10.4%	
9 FPL Group, Inc.	1.95	2.30	0.12	-56.43	1.95	2.06	2.18	2.30	2.44	6.20%	9.6%	
10 IDACORP	1.20	1.40	0.07	-24.84	1.20	1.27	1.33	1.40	1.49	6.20%	10.9%	
11 NSTAR	1.58	1.95	0.12	-31.31	1.58	1.70	1.83	1.95	2.07	6.20%	11.4%	
12 PG&E Corp.	1.74	2.20	0.15	-37.53	1.74	1.89	2.05	2.20	2.34	6.20%	11.1%	
13 Portland General	1.03	1.20	0.06	-18.69	1.03	1.09	1.14	1.20	1.27	6.20%	11.6%	
14 Progress Energy	2.49	2.56	0.02	-36.58	2.49	2.51	2.54	2.56	2.72	6.20%	12.1%	
15 Sempra Energy	1.64	2.10	0.15	-48.35	1.64	1.79	1.95	2.10	2.23	6.20%	9.8%	
16 Southern Co.	1.77	2.00	0.08	-30.07	1.77	1.84	1.92	2.00	2.12	6.20%	11.8%	
17 Vectren Corp.	1.37	1.51	0.05	-23.23	1.37	1.42	1.46	1.51	1.60	6.20%	11.7%	
18 Wisconsin Energy	1.45	2.15	0.23	-40.33	1.45	1.68	1.92	2.15	2.28	6.20%	10.6%	
19 Xcel Energy Inc.	0.99	1.10	0.04	-18.19	0.99	1.02	1.06	1.10	1.17	6.20%	11.3%	
GROUP AVERAGE											11.3%	
GROUP MEDIAN											11.4%	

Source: Value Line Investment Survey, Electric Utility (East), May 29, 2009; (Central), Jun 26, 2009; (West), Aug 7, 2009.

NOTE: SEE PAGE 5 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.

**PacifiCorp Oregon  
Discounted Cash Flow Analysis  
Column Descriptions**

Column 1: Three-month Average Price per Share (May 2009-Jul 2009)	Column 13: Column 11 Plus Column 12
Column 2: Average of Estimated 2009 & 2010 Div per Share from Value Line	Column 14: See Column 2
Column 3: Column 2 Divided by Column 1	Column 15: Estimated 2013 Dividends per Share from Value Line
Column 4: "Est'd 06-08 to 12-14" Earnings Growth Reported by Value Line	Column 16: (Column 15 Minus Column 14) Divided by Three
Column 5: "Next 5 Years" Company Growth Estimate as Reported by Zacks.com	Column 17: See Column 1
Column 6: "Next 5 Years (per annum) Growth Estimate Reported by Thomson Financial Network (at Yahoo Finance)	Column 18: See Column 14
Column 7: Average of Columns 4-6	Column 19: Column 18 Plus Column 16
Column 8: Column 3 Plus Column 7	Column 20: Column 19 Plus Column 19
Column 9: See Column 1	Column 21: Column 20 Plus Column 16
Column 10: See Column 2	Column 22: Column 21 Increased by the Growth Rate Shown in Column 23
Column 11: Column 10 Divided by Column 9	Column 23: See Column 12
Column 12: Average of GDP Growth During the Last 10 year, 20 year, 30 year, 40 year, 50 year, and 60 year growth periods. See Exhibit PPL/204	Column 24: The Internal Rate of Return of the Cash Flows in Columns 17-22 along with the Dividends for the Years 6-150 Implied by the Growth Rates shown in Column 23



Docket No. UE-210  
Exhibit PPL/221  
Witness: Samuel C. Hadaway

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of Samuel C. Hadaway**

**Updated Risk Premium Analysis**

**August 2009**

## PacifiCorp Oregon

### Risk Premium Analysis

(Based on Projected Interest Rates)

	MOODY'S AVERAGE PUBLIC UTILITY BOND YIELD (1)	AUTHORIZED ELECTRIC RETURNS (2)	INDICATED RISK PREMIUM
1980	13.15%	14.23%	1.08%
1981	15.62%	15.22%	-0.40%
1982	15.33%	15.78%	0.45%
1983	13.31%	15.36%	2.05%
1984	14.03%	15.32%	1.29%
1985	12.29%	15.20%	2.91%
1986	9.46%	13.93%	4.47%
1987	9.98%	12.99%	3.01%
1988	10.45%	12.79%	2.34%
1989	9.66%	12.97%	3.31%
1990	9.76%	12.70%	2.94%
1991	9.21%	12.55%	3.34%
1992	8.57%	12.09%	3.52%
1993	7.56%	11.41%	3.85%
1994	8.30%	11.34%	3.04%
1995	7.91%	11.55%	3.64%
1996	7.74%	11.39%	3.65%
1997	7.63%	11.40%	3.77%
1998	7.00%	11.66%	4.66%
1999	7.55%	10.77%	3.22%
2000	8.14%	11.43%	3.29%
2001	7.72%	11.09%	3.37%
2002	7.53%	11.16%	3.63%
2003	6.61%	10.97%	4.36%
2004	6.20%	10.75%	4.55%
2005	5.67%	10.54%	4.87%
2006	6.08%	10.36%	4.28%
2007	6.11%	10.36%	4.25%
2008	6.65%	10.46%	3.81%
AVERAGE	9.15%	12.34%	3.19%

#### **INDICATED COST OF EQUITY**

PROJECTED SINGLE-A UTILITY BOND YIELD*	7.53%
MOODY'S AVG ANNUAL YIELD DURING STUDY	9.15%
INTEREST RATE DIFFERENCE	<u>-1.62%</u>

INTEREST RATE CHANGE COEFFICIENT	<u>-41.34%</u>
ADJUSTMENT TO AVG RISK PREMIUM	0.67%

BASIC RISK PREMIUM	3.19%
INTEREST RATE ADJUSTMENT	<u>0.67%</u>
EQUITY RISK PREMIUM	<u>3.86%</u>

PROJECTED SINGLE-A UTILITY BOND YIELD*	7.53%
<b>INDICATED EQUITY RETURN</b>	<b><u><u>11.39%</u></u></b>

(1) Moody's Investors Service

(2) Regulatory Focus, Regulatory Research Associates, Inc.

\*Projected single-A bond yield is 183 basis points over projected long-term Treasury bond rate of 5.7% from Exhibit PPL/215, p. 2. The single-A spread is for 3 months ended July 2009 from Exhibit PPL/215, p. 1.

## PacifiCorp Oregon

### Risk Premium Analysis

(Based on Current Interest Rates)

	MOODY'S AVERAGE PUBLIC UTILITY BOND YIELD (1)	AUTHORIZED ELECTRIC RETURNS (2)	INDICATED RISK PREMIUM
1980	13.15%	14.23%	1.08%
1981	15.62%	15.22%	-0.40%
1982	15.33%	15.78%	0.45%
1983	13.31%	15.36%	2.05%
1984	14.03%	15.32%	1.29%
1985	12.29%	15.20%	2.91%
1986	9.46%	13.93%	4.47%
1987	9.98%	12.99%	3.01%
1988	10.45%	12.79%	2.34%
1989	9.66%	12.97%	3.31%
1990	9.76%	12.70%	2.94%
1991	9.21%	12.55%	3.34%
1992	8.57%	12.09%	3.52%
1993	7.56%	11.41%	3.85%
1994	8.30%	11.34%	3.04%
1995	7.91%	11.55%	3.64%
1996	7.74%	11.39%	3.65%
1997	7.63%	11.40%	3.77%
1998	7.00%	11.66%	4.66%
1999	7.55%	10.77%	3.22%
2000	8.14%	11.43%	3.29%
2001	7.72%	11.09%	3.37%
2002	7.53%	11.16%	3.63%
2003	6.61%	10.97%	4.36%
2004	6.20%	10.75%	4.55%
2005	5.67%	10.54%	4.87%
2006	6.08%	10.36%	4.28%
2007	6.11%	10.36%	4.25%
2008	6.65%	10.46%	3.81%
<b>AVERAGE</b>	<b>9.15%</b>	<b>12.34%</b>	<b>3.19%</b>

#### **INDICATED COST OF EQUITY**

CURRENT SINGLE-A UTILITY BOND YIELD*	6.22%
MOODY'S AVG ANNUAL YIELD DURING STUDY	9.15%
INTEREST RATE DIFFERENCE	<u>-2.93%</u>

INTEREST RATE CHANGE COEFFICIENT	<u>-41.34%</u>
ADJUSTMENT TO AVG RISK PREMIUM	1.21%

BASIC RISK PREMIUM	3.19%
INTEREST RATE ADJUSTMENT	<u>1.21%</u>
EQUITY RISK PREMIUM	<u>4.40%</u>

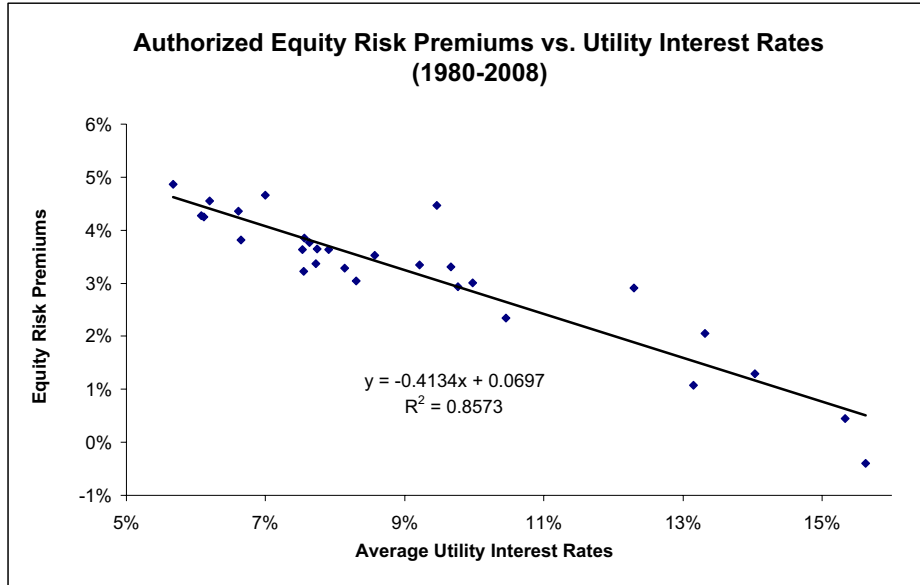
CURRENT SINGLE-A UTILITY BOND YIELD*	6.22%
<b>INDICATED EQUITY RETURN</b>	<b><u><u>10.62%</u></u></b>

(1) Moody's Investors Service

(2) Regulatory Focus, Regulatory Research Associates, Inc.

\*Current single-A utility bond yield is three month average of Moody's Single-A Public Utility Bond Yield Average through July 2009 from Exhibit PPL/215, p. 1.

**PacifiCorp Oregon**  
Risk Premium Analysis  
Regression Analysis & Interest Rate Change Coefficient



SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.925929671
R Square	0.857345755
Adjusted R Square	0.852062265
Standard Error	0.004864141
Observations	29

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.003839258	0.003839258	162.2688162	6.25236E-13
Residual	27	0.000638816	2.36599E-05		
Total	28	0.004478074			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.069723958	0.003102577	22.47291965	5.19996E-19	0.063357996	0.07608992	0.063357996	0.07608992
X Variable 1	-0.413428393	0.032455086	-12.73847778	6.25236E-13	-0.480020728	-0.346836058	-0.480020728	-0.346836058





Docket No. UE-210  
Exhibit PPL/307  
Witness: Bruce N. Williams

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Reply Testimony of Bruce N. Williams**

**August 2009**

1 **Q. Are you the same Bruce N. Williams who previously provided testimony in**  
2 **this docket?**

3 A. Yes, as Exhibit PPL/300.

4 **Purpose and Summary**

5 **Q. Please explain the purpose of your reply testimony.**

6 A. My reply testimony has four primary sections. First, I explain the Company' s  
7 updated capital structure and rate of return recommendations. Second, I respond  
8 to the testimony of the joint witness for the Industrial Customers of Northwest  
9 Utilities and the Citizens' Utility Board(“ ICNU-CUB” ), Mr. Michael P. Gorman  
10 concerning the Company' s capital structure. Third, I discuss Public Utility  
11 Commission of Oregon Staff (“ Staff” ) witness Mr. Jorge Ordonez' s proposed  
12 adjustments to the cost of debt and preferred stock. Fourth, I address Staff  
13 witness Mr. Dustin Ball' s proposed adjustments to the Company' s FAS 87  
14 pension expense and FAS 106 Post Retirement Benefits.

15 **Q. Are there items concerning the cost of capital in your direct testimony with**  
16 **which the parties agreed?**

17 A. Yes. Staff is not proposing any direct adjustments to the Company' s capital  
18 structure. Staff does, however, make an incorrect downward adjustment to its  
19 return on equity estimate based upon the allegation that PacifiCorp has higher  
20 equity than average in Staff' s comparable group and therefore has less risk. Dr.  
21 Samuel C. Hadaway addresses this issue. Additionally, Mr. Gorman accepts the  
22 cost of long-term debt and preferred stock as filed in my direct testimony.

1 **Q. Please summarize your testimony.**

2 A. I provide an update to three components of the Company' s cost of capital. I  
3 explain why the Company' s equity ratio is now projected to be 51.0 percent  
4 instead of 51.2 percent; the Company' s cost of debt is now projected to be 5.96  
5 percent instead of 5.98 percent; resulting in a weighted average cost of capital of  
6 8.53 percent instead of 8.55 percent.

7 I demonstrate that Mr. Gorman' s proposal to reduce the Company' s equity  
8 in its capital structure from 51.2 percent to 50.5 percent is based on a calculation  
9 of retained earnings that is flawed because it relies on mismatched time periods  
10 and cost components. Additionally, Mr. Gorman improperly focused on Oregon  
11 financial forecasts instead of the Company-wide data properly used to calculate  
12 retained earnings for the Company' s capital structure.

13 With respect to Staff' s adjustments to long-term debt, I show that Staff' s  
14 proposal to substitute seven-year maturities for the Company' s proposed thirty-  
15 year maturities for new long-term debt is inconsistent with the Company' s actual  
16 approach to debt financing and Oregon Commission precedent. Nevertheless,  
17 because the amount of new long-term debt is small, the Company proposes to  
18 compromise this point by using ten-year maturities. On Staff' s proposal to re-  
19 price the variable-rate tax-exempt debt, I explain how Staff' s proposal relies on an  
20 improper exclusion of certain months from the period used to calculate the rate  
21 and the use of an interest rate from April 2009, instead of a time period closer to  
22 the rate effective date.

23 I respond to Staff' s adjustment to the Company' s pension expense by

1 showing that the Company' s long-term rate of return for its pension plan is the  
2 result of a calculation based upon a detailed review of plan assets. I contrast this  
3 to Staff' s proposed rate of return, which is based upon generalized industry data  
4 without any attempt to determine plan comparability. Similarly, I show that the  
5 Company derived its proposed 6.3 percent discount rate for 2010 in consultation  
6 with its actuary. I also show that the actuary' s most recent assessment further  
7 demonstrates the unreasonableness of Staff' s proposal to use for 2010 the  
8 Company' s 2009 discount rate of 6.9 percent.

9 **Update to Capital Structure and Rate of Return Recommendation**

10 **Q. Is the Company proposing an update to the capital structure?**

11 A. Yes. At the time the direct testimony in this docket was prepared, the Company  
12 anticipated receiving a \$200 million capital contribution during the fourth quarter  
13 of 2009, while paying no dividends to its common shareholder. The Company  
14 now expects to receive a capital contribution of \$125 million during the fourth  
15 quarter of 2009, with no change in the expectations on dividend payments. The  
16 resulting impact is to reduce the common equity component of the capital  
17 structure to 51.0 percent.

18 **Q. What is the new proposed overall cost of capital including this adjustment**  
19 **and other changes discussed in this testimony?**

20 A. The Company' s updated rate of return is 8.53 percent, a slight reduction from its  
21 initial 8.55 percent recommendation. Including proposed adjustments to the cost  
22 of long-term debt discussed below and the adjusted common equity component,  
23 the proposed capital structure and costs from which this rate of return is derived

1 are:

2 Overall Cost of Capital

3		Percent of	%	Weighted
4	<u>Component</u>	<u>Total</u>	<u>Cost</u>	<u>Average</u>
5	Long Term Debt	48.7%	5.96%	2.90%
6	Preferred Stock	0.3%	5.41%	0.02%
7	Common Stock Equity	51.0%	11.00%	<u>5.61%</u>
8				<b>8.53%</b>

9 **Reply to ICNU-CUB Capital Structure Adjustment**

10 **Q. Please describe the adjustment that Mr. Gorman is proposing to the**  
11 **Company' s capital structure.**

12 A. Mr. Gorman proposes to reduce the common equity component of the Company' s  
13 capital structure from 51.2 percent to 50.5 percent based on his projection of an  
14 increase in retained earnings during 2009 for PacifiCorp. Mr. Gorman calculates  
15 this increase by using the Company' s forecast Oregon jurisdictional return on  
16 equity during 2010 if rate relief is not granted in this docket. This produces a  
17 lower increase in retained earnings than the Company expects on a total company  
18 basis during 2009. The lower retained earnings result in reduced common equity  
19 as a percentage of the total capitalization.

20 **Q. Do you agree with Mr. Gorman' s adjustment?**

21 A. No, for several reasons. First, he is using inconsistent time periods for the basis  
22 of his adjustments. He uses a projected return on equity for the Oregon  
23 jurisdiction during 2010 and then applies that rate to the beginning 2009 common  
24 equity level. Clearly, this is an inappropriate and inconsistent mismatch of  
25 returns, capital structure balances and periods of time.

26 Second, he is applying the Oregon jurisdictional return to the Company' s

1 entire operations which include five other states. The Company finances its  
2 operations in all six state jurisdictions with one aggregate capital structure – there  
3 are not six individual capital structures or six individual credit ratings. The  
4 Company’ s increase or decrease in retained earnings will be an aggregate of its  
5 financial results for all of the jurisdictions in which it operates, rather than just  
6 one.

7 Further, Mr. Gorman compares the forecasted 2010 return on equity for  
8 the Oregon jurisdiction, absent any rate relief, which is calculated using a 13  
9 month average for capital structure, to his calculated 2009 total -company ROE.  
10 However, Mr. Gorman merely divides the increase in retained earnings into the  
11 beginning common equity level in order to produce his assessment of the  
12 Company’ s ROE. This results in his calculation overstating the 2009 return on  
13 equity as the amount of common equity is increasing throughout the time period  
14 due to all earnings being retained (no dividends are being paid) and capital  
15 contributions also being received. For instance, if he had calculated return on  
16 equity on the ending 2009 capital structure, the result would be a 2009 total  
17 company return on equity of 8.8 percent and not the 10 percent he cites.

18	Projected 2009 Increase in Retained Earnings	\$590,595,729
19	Divided by 12/31/09 Common Equity	<u>6,736,223,000</u>
20	Equals ROE on ending equity	8.8%

21 **Q. Do you believe that Mr. Gorman’ s reference to the Company’ s capital**  
22 **structure in its Washington general rate case is a valid comparison to this**  
23 **case?**

24 A. No, primarily for the reason that the cases have different test periods and the

1 Washington jurisdiction employs different ratemaking principles to calculate the  
2 allowable capital structure. The Washington case is utilizing an average capital  
3 structure during the 12 months ending June 30, 2009. That end date will then  
4 exclude any increase in retained earnings or capital contributions received during  
5 the second half of 2009. This Oregon case is using a measurement date of  
6 December 31, 2009. Again, Mr. Gorman is attempting to compare non-  
7 comparable time periods.

8 **Q. Mr. Gorman attempted to support his proposed return on equity as**  
9 **reasonable by stating that the Company' s credit ratios would support its**  
10 **current ratings. Did his model accurately reflect adjustments that the rating**  
11 **agencies make when calculating PacifiCorp' s financial metrics?**

12 A. No, Mr. Gorman did not include a substantial amount of debt and interest  
13 adjustments that Standard & Poor' s makes during its analysis of PacifiCorp. For  
14 example, Mr. Gorman failed to include a number of adjustments that resulted in  
15 \$575 million of debt and \$44 million of corresponding interest being excluded  
16 from his ratio calculations. These adjustments are clearly stated in Standard &  
17 Poor' s April 1, 2009 credit report on PacifiCorp, which Mr. Gorman was certainly  
18 aware of since he cites the report on page 9 of his opening testimony. (ICNU-  
19 CUB/300, Gorman/9, lines 15-30)

## 20 **Cost of Debt and Preferred Stock**

21 **Q. Can you please summarize the adjustments that Staff witness Mr. Ordonez**  
22 **proposes to the Company' s cost of long-term debt and preferred stock.**

23 A. Mr. Ordonez proposes two adjustments to the cost of long-term debt and one

1 adjustment to the cost of preferred stock. The first adjustment to the cost of long-  
2 term debt is to assume a shorter maturity for the pro forma debt that is included in  
3 the cost of debt calculation. Mr. Ordonez' s second adjustment is to the  
4 Company' s variable rate, tax-exempt Pollution Control Revenue Bonds  
5 (“ PCRBs” ). Finally, Mr. Ordonez proposes to exclude certain costs from the cost  
6 of preferred stock calculation.

7 **Q. Do you agree with these adjustments?**

8 A. No. The proposed adjustments should not be accepted as they are inappropriate  
9 and inconsistent with the facts.

10 **Cost of Long-Term Debt**

11 **Q. Please describe Mr. Ordonez' s proposed changes to the Company' s cost of**  
12 **long-term debt.**

13 A. Mr. Ordonez' s first adjustment is to change the pro-forma test period debt  
14 issuance from a thirty-year maturity with an interest rate determined from forward  
15 rates and historical credit spreads to a seven-year maturity based on treasury rates  
16 and credit spreads during April 2009.

17 **Q. Do you agree with this adjustment?**

18 A. No. It is inconsistent with the Company' s practice of issuing longer term  
19 maturities. In Docket UE 116, the Commission rejected a similar Staff proposal  
20 to price PacifiCorp' s pro-forma test period debt issuance assuming a seven-year  
21 maturity date, recognizing that it was more likely that PacifiCorp would use a mix  
22 of ten- and thirty-year maturity dates.



1 **Q. Have you determined the impact on the cost of long-term debt from this**  
2 **adjustment?**

3 A. Yes. The adjustment essentially has no impact on the cost of debt in this docket  
4 due to the relatively small amount of pro-forma debt for which the rate is being  
5 determined, i.e. \$14.6 million. However, the Company believes this adjustment is  
6 inconsistent with the proposed tenor of the issuance and contrary to Commission  
7 precedent.

8 **Q. Given the immateriality of the adjustment, does PacifiCorp have a**  
9 **compromise position?**

10 A. Yes. The Company is agreeable to compromise using a maturity of ten years for  
11 purposes of this docket. This position, however, should not be seen as setting a  
12 precedent for future determinations of cost of long-term debt.

13 **Q. Please describe Mr. Ordonez' s proposed adjustment concerning variable**  
14 **rate tax-exempt debt.**

15 A. As background, I will first summarize how the Company determines the coupon  
16 rate for its variable rate debt. As discussed in my direct testimony, the  
17 Company' s debt portfolio includes securities which are variable rate and on  
18 average have been trading at 85 percent of the London Interbank Offer Rate  
19 (“ LIBOR” ) for the period January 2000 through December 2008. The Company  
20 then applied that 85 percent factor to the forward 30-day LIBOR rate at December  
21 31, 2009 (that date is the end of the quarter prior to when the new rates in this  
22 docket are to be effective). The Company then added the respective credit  
23 enhancement and remarketing fees for each variable rate series. This method is

1 consistent with the Company' s past practices when determining the cost of debt in  
2 previous Oregon general rate cases as well as the other states that regulate  
3 PacifiCorp.

4 Mr. Ordonez generally followed the same process but made two  
5 significant changes. The first change is to exclude the time period between June  
6 and December 2008 when calculating the relationship of the average variable rate  
7 to LIBOR. By excluding that period, Mr. Ordonez calculates the relationship at  
8 81 percent rather than the 85 percent in my direct testimony.

9 **Q. Why did Mr. Ordonez remove this time period from the analysis?**

10 A. Mr. Ordonez stated that it was removed “ due to adverse market conditions.”  
11 (Staff/900, Ordonez/9, line 5)

12 **Q. Did the Company similarly remove time periods when rates were low in  
13 order to avoid including “ favorable market conditions” ?**

14 A. No. The Company included all rates during the entire period of January 2000 to  
15 December 2008. To selectively remove periods for whatever reason is arbitrary  
16 and inappropriate when one is determining the average rate.

17 **Q. What was Mr. Ordonez' s second adjustment to the variable-rate tax exempt  
18 debt?**

19 A. Rather than use a forward rate for 30-day LIBOR at December 31, 2009, Mr.  
20 Ordonez uses the 30-day LIBOR rate on April 14, 2009.

1 **Q. Does the Company’ s use of a forward rate for 30-day LIBOR from**  
2 **December 31, 2009 better align with Commission precedent than use of a**  
3 **rate from April 14, 2009?**

4 A. Yes. The Commission has previously determined that the cost of debt should be  
5 measured at the effective date of final rates in the proceeding. PacifiCorp set its  
6 long-term debt costs as of December 31, 2009, as a reasonable approximation of  
7 the costs of debt in February 2010, when new rates from this case will go into  
8 effect. Use of a 30-day LIBOR rate from December 31, 2009 better matches the  
9 Company’ s costs when the rates will be effective with customers’ prices. There is  
10 no similar rationale justifying the use of Staff’ s April 14, 2009 30-day LIBOR  
11 rate.

## 12 **Summary and Update on Long-Term Debt Costs**

13 **Q. Please summarize the adjustments to the cost of long-term debt you are**  
14 **proposing.**

15 A. As I mentioned earlier, the Company is willing to use a 10-year maturity as the  
16 basis for determining the interest rate on the pro-forma series of long-term debt,  
17 even though a 30-year maturity is much more consistent with the actual maturities  
18 of the Company’ s recent long-term debt

19 **Q. How did you determine the proposed new cost of the pro-forma long-term**  
20 **debt?**

21 A. Using a current forward rate for the 10-year Treasury at December 31, 2009 and  
22 the average credit spread for a new issuance of 10-year long-term debt, which was  
23 provided to Staff in response to data request OPUC 334, results in the following:

1	10 Year Treasury Rate	3.91%
2	Average credit spread	<u>1.34%</u>
3	Pro-forma coupon rate	5.25%

4 This is the coupon rate for the pro-forma debt that the Company' s uses in its  
5 updated cost of long-term debt.

6 **Q. Are there any other adjustments you are proposing?**

7 A. Yes, we have also updated the variable-rate PCRBs to reflect current forward  
8 rates at December 31, 2009, for 30-day LIBOR of 1.42 percent. Applying the 85  
9 percent factor that I discussed above produces a coupon rate of 1.21 percent for  
10 the variable-rate PCRBs. I have also included this rate in the updated cost of  
11 long-term debt.

12 **Q. What is the Company' s updated cost of long-term debt?**

13 A. The updated cost of long-term debt is 5.96 percent at December 31, 2009, as  
14 shown in Exhibit PPL/308. This updated cost includes both the adjustment for the  
15 pro-forma cost of long-term debt and the adjustment for the variable-rate PCRBs.

16 **Cost of Preferred Stock**

17 **Q. Please explain Staff' s proposed adjustment to the cost of preferred stock.**

18 A. Mr. Ordonez cites three reasons for excluding certain unrecovered costs  
19 associated with quarterly income debt securities (“ QUIDS” ) that were redeemed  
20 prior to final maturity. These costs approximate \$152,000 annually for  
21 PacifiCorp as a whole, which the Company is amortizing over the original life of  
22 these securities. Mr. Ordonez states that these costs should be excluded because:

23 i) The QUIDS are no longer outstanding and no specific replacement  
24 debt has been identified;

- 1           ii)     the expenses are non-recurring; and  
2           iii)     in previous rate cases the Company did not identify new debt  
3                   issuances used to specifically refund the QUIDS.

4   **Q.    Can you please provide some background on these securities and their**  
5   **subsequent redemption?**

6   A.    The Company issued two separate series of QUIDS during 1995 totaling \$175.8  
7   million. The first series bore a coupon rate of 8.55 percent with a maturity of  
8   2025 while the second series had a coupon rate of 8.375 percent and a 2035  
9   maturity. The Company incurred normal and reasonable expenses associated with  
10  the issuances of the two series. At the time of issuance and during their life, these  
11  securities were treated as preferred stock for regulatory accounting purposes.  
12  Initially, the rating agencies viewed QUIDS similar to traditional preferred stock  
13  and they received favorable equity treatment by the credit rating agencies.  
14  However, the rating agencies subsequently revised their view and later considered  
15  these types of securities as debt securities in their ratings analysis.

16           During November 2000, the Company redeemed the entirety of both series  
17  of QUIDS with cash generated from the sale of a subsidiary. The QUIDS were  
18  relatively high cost, especially when viewed as debt consistent with the revised  
19  rating agency treatment, and had par call features which allowed the Company to  
20  redeem the securities without paying a premium. No additional expense was  
21  incurred in the redemption. No replacement debt or preferred stock was issued  
22  and following Federal Energy Regulatory Commission accounting guidelines, the

1 Company continues to amortize the issuance costs related to these two series over  
2 their original life.

3 **Q. Should the “ non-recurring” nature of these unamortized issuance expenses**  
4 **preclude them from being recovered?**

5 A. No. Securities issuance or redemption costs are almost always “ non-recurring”  
6 during the life of a security. The Company must pay underwriter fees, legal and  
7 accounting fees, etc., up front in order to issue any long-term security. For  
8 accounting and rate-making purposes, these costs are recovered over the expected  
9 life of the securities. In Order No. 01-787, UE 116, the Commission was clear  
10 that the non-recurring nature of the issuance costs did not preclude their recovery  
11 as a part of the overall cost of capital, but only limited their recovery as some  
12 other type of expense.

13 **Q. Has the Commission previously commented on the recovery of the QUIDS**  
14 **expenses?**

15 A. Yes. In Order No. 01-787 the Commission stated that if “ given persuasive  
16 evidence as to how customers specifically benefited from PacifiCorp’ s decision to  
17 redeem the QUIDS, we would be inclined to allow the expense.” In that case,  
18 decided less than one year after the redemption, PacifiCorp was unable to satisfy  
19 the Commission’ s requirement of specific and demonstrable proof of customer  
20 benefit. However, the Company has since developed that evidence.

21 **Q. Has the Company demonstrated in this docket that retiring the QUIDS**  
22 **benefited Oregon customers?**

23 A. Yes. Redeeming the QUIDS has provided Oregon customers with an

1 approximate \$500,000 annual benefit through lower revenue requirement. The  
2 Company' s overall cost of capital in this case would be higher absent the QUIDS  
3 being redeemed. See Exhibit PPL/309 (response to Staff data request 120.) The  
4 Company has provided the evidence in this docket that Oregon customers have  
5 and will continue to benefit from the QUIDS redemption and the Commission  
6 should allow recovery of the unamortized issuance costs.

7 **Pension Expense and Post-Retirement Benefits**

8 **Q. Please summarize the adjustments that Mr. Ball proposes to make to the**  
9 **Company' s pension expense and post-retirement benefits.**

10 A. Mr. Ball proposes to increase the estimated long-term rate of return from 7.75  
11 percent to 8.25 percent and to increase the discount rate from 6.30 percent to 6.90  
12 percent. The impact of these adjustments results in reduced pension and post  
13 retirement benefit expense for a total adjustment of \$2.7 million to the Company' s  
14 revenue requirement.

15 **Estimated Long-Term Rate of Return**

16 **Q. How did the Company determine the rate of 7.75 percent as the estimated**  
17 **long-term rate of return for its pension investment?**

18 A. The Company performed a “ bottoms-up” analysis utilizing the asset allocation  
19 targets for the investment portfolio and a specific return for each asset class. The  
20 return for each asset class, which was provided by the Company' s investment  
21 consultant, is then weighted by the amount of the portfolio allocated to that asset  
22 class. The Company calculated that, based on its asset allocation targets and the  
23 projected return for each asset class, the weighted average return for the

1 investment portfolio is 7.74 percent, which was rounded to 7.75 percent. The  
2 table below illustrates the calculations that the Company undertook.

### Pension Investment Return Projections

		PacifiCorp		
Asset Class	Allocation	Nominal Index Return	Active Alpha*	Projected Return
<b>Fixed Income</b>				
Domestic	23.00%	5.40%	0.20%	5.60%
Global	12.00%	5.35%	0.30%	5.65%
<b>TOTAL</b>	<b>35.00%</b>	<b>5.38%</b>	<b>0.23%</b>	<b>5.62%</b>
<b>Equity</b>				
<b>Domestic</b>				
Large Cap	34.50%	8.30%	0.40%	8.70%
Small Cap	7.50%	8.90%	0.75%	9.65%
<b>Total Domestic</b>	<b>42.00%</b>	<b>8.41%</b>	<b>0.46%</b>	<b>8.87%</b>
<b>International</b>				
Developed	11.25%	8.40%	0.40%	8.80%
Developing	3.75%	8.90%	0.75%	9.65%
<b>Total International</b>	<b>15.00%</b>	<b>8.53%</b>	<b>0.49%</b>	<b>9.01%</b>
<b>Total Public Equity</b>	<b>57.00%</b>	<b>8.44%</b>	<b>0.47%</b>	<b>8.91%</b>
Private Equity	8.00%	10.80%	1.00%	11.80%
<b>Total Equity</b>	<b>65.00%</b>	<b>8.73%</b>	<b>0.53%</b>	<b>9.25%</b>
<b>Composite Return</b>	<b>100.00%</b>	<b>7.56%</b>	<b>0.43%</b>	<b>7.99%</b>
	Less	Trustee & other administrative costs		-0.25%
		Investment Return Net of Expenses		<b>7.74%</b>

\*Net of investment manager fees



1 In addition, the expected long-term rate of return was then reviewed and was  
2 accepted by both the Company' s actuary and its independent external auditors.

3 **Q. How did Mr. Ball determine his proposed rate?**

4 A. Mr. Ball' s proposed adjustment was selected based on industry data with the goal  
5 of moving the Company' s estimated long term rate of return close to the mid-  
6 point of such data.

7 **Q. Did Mr. Ball undertake an analysis of asset allocation and projected asset  
8 class returns for the companies in the data set from which he selected the  
9 mid-point?**

10 A. No, it appears that he undertook no analysis of underlying assumptions or asset  
11 allocations of the industry group to determine if they were comparable to the  
12 Company' s.

13 **Q. Would the Company' s independent external auditors find it acceptable if the  
14 Company selected its estimated long-term rate of return in a manner similar  
15 to Mr. Ball' s approach?**

16 A. No, the auditors would not accept the determination of the Company' s estimated  
17 long-term rate of return based on general industry data. Generally accepted  
18 accounting principles in the United States require that the expected long-term rate  
19 of return on plan assets be determined based on the average return of the funds  
20 invested for purposes of funding benefits, and requires consideration of returns  
21 being earned or expected to be earned by such plan assets. During the annual  
22 financial statement audit, the Company' s independent external auditors request  
23 information supporting the Company' s calculation of the expected long-term rate

1 of return. In determining the expected long-term rate of return in this manner, the  
2 Company considers asset allocation targets and asset class return expectations of  
3 the underlying portfolio of investments.

4 **Discount Rate**

5 **Q. Does Mr. Ball propose to also change the discount rate that is used in the**  
6 **calculation of pension and post-retirement benefits?**

7 A. Yes. Mr. Ball adjusts the discount rate used by the Company in determining  
8 pension and post-retirement benefits from a rate of 6.30 percent to 6.90 percent.  
9 The impact of the higher discount rate is to reduce the level of future pension  
10 obligations (discounting a future cash flow at a higher rate results in a lower  
11 present value) and thus reduce each of the retirement obligation expenses.

12 **Q. On what basis did Mr. Ball propose this higher discount rate?**

13 A. Mr. Ball proposes to use the rate determined on December 31, 2008 which the  
14 Company used for purposes of determining expense during 2009.

15 **Q. Do you agree with Mr. Ball' s proposed adjustments?**

16 A. No. The actual discount rate that will be used to determine pension and post-  
17 retirement benefit expense during 2010 will not be determined until interest rates  
18 on the measurement date, December 31, 2009, are known. As such, the  
19 Company' s projections were originally determined in consultation with Hewitt  
20 Associates, the Company' s actuary, during the 2008 planning process at which  
21 time the discount rate was 6.30 percent. There was no better data available than  
22 assuming the discount rate would stay constant in the calculation of projected

1 2009 and subsequent pension and post-retirement expense. Then when the 2009  
2 discount rate become known, the 2009 assumptions were appropriately updated.

3 **Q. What is the Company' s most recent information on its discount rate**  
4 **forecast?**

5 A. The Company recently received an update from its actuary that indicates the  
6 discount rate of 6.30 percent would be too high today. Hewitt Associates has  
7 estimated that as of July 31, 2009 (the last data known and available), the discount  
8 rate if measured on that date would be 6.15 percent, a rate slightly below the 6.30  
9 percent that the Company has used. This estimate is well below the 6.90 percent  
10 that Staff is proposing.

11 **Q. Does this conclude your reply testimony?**

12 A. Yes.



Docket No. UE-210  
Exhibit PPL/308  
Witness: Bruce N. Williams

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of Bruce N. Williams**

**Pro Forma Cost of Long-Term Debt  
December 31, 2009 – Updated for Reply Testimony**

**August 2009**

**PACIFICORP**  
**Electric Operations**  
**Pro Forma Cost of Long-Term Debt Summary (Reply Testimony)**  
**December 31, 2009**

LINE NO.	DESCRIPTION	AMOUNT CURRENTLY OUTSTANDING	ISSUANCE EXPENSES	REDEMPTION EXPENSES	NET PROCEEDS TO COMPANY	ANNUAL DEBT SERVICE COST	INTEREST RATE	ALL-IN COST	ORIG LIFE	YTM	LINE NO.
1											1
2	<b>Total First Mortgage Bonds</b>	<b>\$5,633,973,000</b>	<b>(\$59,159,033)</b>	<b>(\$32,177,777)</b>	<b>\$5,542,636,190</b>	<b>\$358,754,817</b>	<b>6.209%</b>	<b>6.368%</b>	<b>23.5</b>	<b>18.7</b>	2
3											3
4	Subtotal - Pollution Control Revenue Bonds secured by FMBs	\$400,470,000	(\$10,560,810)	(\$9,550,194)	\$380,358,996	\$13,757,532	3.125%	3.435%	28.0	11.5	4
5	Subtotal - Pollution Control Revenue Bonds	\$337,900,000	(\$4,294,232)	(\$7,621,229)	\$325,984,539	\$6,979,572	1.890%	2.066%	27.8	8.2	5
6	<b>Total Pollution Control Revenue Bonds</b>	<b>\$738,370,000</b>	<b>(\$14,855,042)</b>	<b>(\$17,171,423)</b>	<b>\$706,343,535</b>	<b>\$20,737,104</b>	<b>2.560%</b>	<b>2.808%</b>	<b>27.9</b>	<b>10.0</b>	6
7											7
8	<b>Total Cost of Long Term Debt</b>	<b>\$6,372,343,000</b>	<b>(\$74,014,074)</b>	<b>(\$49,349,200)</b>	<b>\$6,248,979,725</b>	<b>\$379,491,921</b>	<b>5.786%</b>	<b>5.955%</b>	<b>24.0</b>	<b>17.7</b>	8
9											9

**PACIFICORP**  
**Electric Operations**  
**Pro Forma Cost of Long-Term Debt Detail (Reply Testimony)**  
**December 31, 2009**

LINE NO.	INTEREST RATE	DESCRIPTION	ISSUANCE DATE	MATURITY DATE	ORIG LIFE	YTM	PRINCIPAL AMOUNT			ISSUANCE EXPENSES	REDEMPTION EXPENSES	TOTAL DOLLAR AMOUNT	PER \$100 PRINCIPAL	MONEY TO COMPANY	ANNUAL DEBT SERVICE COST	LINE NO.				
							ORIGINAL ISSUE	CURRENTLY OUTSTANDING	TOTAL								TOTAL DOLLAR AMOUNT	PRINCIPAL AMOUNT	MONTHLY COMPANY	ANNUAL DEBT SERVICE COST
1																				
2		<b>First Mortgage Bonds</b>																		
3	7.978%	C-U Series due thru Oct 2011	04/15/92	10/01/11	19	1	\$4,422,000	\$412,000	\$0	\$0	\$4,422,000	\$100,000	7.978%	\$32,869	1					
4	8.493%	C-U Series due thru Oct 2012	04/15/92	10/01/12	20	2	\$19,772,000	\$3,590,000	\$0	\$0	\$3,590,000	\$100,000	8.493%	\$304,899	2					
5	8.797%	C-U Series due thru Oct 2013	04/15/92	10/01/13	20	2	\$16,203,000	\$4,247,000	\$0	\$0	\$4,247,000	\$100,000	8.797%	\$373,609	3					
6	8.734%	C-U Series due thru Oct 2014	04/15/92	10/01/14	21	3	\$28,218,000	\$9,301,000	\$0	\$0	\$9,301,000	\$100,000	8.734%	\$812,349	4					
7	8.294%	C-U Series due thru Oct 2015	04/15/92	10/01/15	21	3	\$46,946,000	\$17,918,000	\$0	\$0	\$17,918,000	\$100,000	8.294%	\$1,486,119	5					
8	8.635%	C-U Series due thru Oct 2016	04/15/92	10/01/16	22	4	\$18,750,000	\$8,318,000	\$0	\$0	\$8,318,000	\$100,000	8.635%	\$718,259	6					
9	8.470%	C-U Series due thru Oct 2017	04/15/92	10/01/17	22	5	\$19,609,000	\$9,585,000	\$0	\$0	\$9,585,000	\$100,000	8.470%	\$811,850	7					
10	<b>8.506%</b>	<b>Subtotal - Amortizing FMBs</b>			<b>21</b>	<b>3</b>	<b>\$53,371,000</b>	<b>\$53,371,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$53,371,000</b>	<b>\$100,000</b>	<b>8.506%</b>	<b>\$4,539,954</b>	<b>8</b>					
11																				
12	6.900%	Series due Nov 2011	11/21/01	11/15/11	10	2	\$500,000,000	\$500,000,000	(\$5,338,849)	\$0	\$494,661,151	\$98,932	7.051%	\$35,255,000	9					
13	5.450%	Series due Sep 2013	09/08/03	09/15/13	10	4	\$200,000,000	\$200,000,000	(\$1,654,660)	(\$5,967,819)	\$192,377,521	\$96,189	5.961%	\$11,922,000	10					
14	4.950%	Series due Aug 2014	08/24/04	08/15/14	10	5	\$200,000,000	\$200,000,000	(\$2,170,365)	\$0	\$197,829,635	\$98,915	5.090%	\$10,180,000	11					
15	7.700%	Series due Nov 2031	11/21/01	11/15/31	30	22	\$300,000,000	\$300,000,000	(\$3,701,310)	\$0	\$296,298,690	\$98,766	7.807%	\$23,421,000	12					
16	5.900%	Series due Aug 2034	08/24/04	08/15/34	30	25	\$200,000,000	\$200,000,000	(\$2,614,365)	\$0	\$197,385,635	\$98,693	5.994%	\$11,988,000	13					
17	5.250%	Series due Jun 2035	06/08/05	06/15/35	30	25	\$300,000,000	\$300,000,000	(\$3,992,021)	(\$1,295,995)	\$294,711,984	\$98,237	5.369%	\$16,107,000	14					
18	6.100%	Series due Aug 2036	08/10/06	08/01/36	30	27	\$350,000,000	\$350,000,000	(\$4,048,711)	\$0	\$345,951,289	\$98,843	6.185%	\$21,647,000	15					
19	5.750%	Series due Apr 2037	03/14/07	04/01/37	30	27	\$600,000,000	\$600,000,000	(\$613,216)	\$0	\$599,386,784	\$99,898	5.757%	\$34,542,000	16					
20	6.250%	Series due Oct 2037	10/03/07	10/15/37	30	28	\$600,000,000	\$600,000,000	(\$5,873,367)	\$0	\$594,126,633	\$99,021	6.323%	\$37,938,000	17					
21	5.650%	Series due Jul 2018	07/17/08	07/15/18	10	9	\$500,000,000	\$500,000,000	(\$3,827,364)	\$0	\$496,172,636	\$99,235	5.752%	\$28,760,000	18					
22	6.350%	Series due Jul 2038	07/17/08	07/15/38	30	29	\$300,000,000	\$300,000,000	(\$3,874,418)	\$0	\$296,125,582	\$98,709	6.448%	\$19,344,000	19					
23	5.500%	Series due Jan 2019	01/08/09	01/15/19	10	9	\$350,000,000	\$350,000,000	(\$4,795,000)	\$0	\$345,205,000	\$98,630	5.681%	\$19,883,500	20					
24	6.000%	Series due Jan 2039	01/08/09	01/15/39	30	29	\$650,000,000	\$650,000,000	(\$12,285,000)	\$0	\$637,715,000	\$98,110	6.139%	\$39,903,500	21					
25	5.250%	Pro Forma Series	12/31/09	12/31/19	10	10	\$14,602,000	\$14,602,000	(\$113,166)	\$0	\$14,488,835	\$99,225	5.351%	\$781,353	22					
26	<b>6.034%</b>	<b>Subtotal - Bullet FMBs</b>			<b>23</b>	<b>20</b>	<b>\$5,064,602,000</b>	<b>\$5,064,602,000</b>	<b>(\$54,901,811)</b>	<b>(\$7,263,815)</b>	<b>\$5,002,436,374</b>	<b>\$100,000</b>	<b>6.154%</b>	<b>\$311,672,853</b>	<b>23</b>					
27																				
28	9.150%	Series C due Aug 2011	08/09/91	08/09/11	20	2	\$8,000,000	\$8,000,000	(\$75,327)	\$0	\$7,924,673	\$99,058	9.254%	\$740,320	24					
29	8.950%	Series C due Sep 2011	08/16/91	09/01/11	20	2	\$20,000,000	\$20,000,000	(\$132,118)	\$0	\$19,867,882	\$99,339	9.022%	\$1,804,400	25					
30	8.950%	Series C due Sep 2011	08/16/91	09/01/11	20	2	\$20,000,000	\$20,000,000	(\$188,318)	\$0	\$19,811,682	\$99,058	9.022%	\$1,804,400	26					
31	8.950%	Series C due Sep 2011	08/16/91	09/01/11	20	2	\$25,000,000	\$25,000,000	(\$175,398)	\$0	\$24,824,602	\$99,298	9.026%	\$2,256,500	27					
32	8.290%	Series C due Dec 2011	12/31/91	12/30/11	20	2	\$3,000,000	\$3,000,000	(\$23,040)	(\$410,784)	\$2,566,175	\$85,539	9.972%	\$209,160	28					
33	8.260%	Series C due Jan 2012	01/09/92	01/10/12	20	2	\$1,000,000	\$1,000,000	(\$7,649)	(\$136,928)	\$855,423	\$85,542	9.938%	\$99,380	29					
34	8.280%	Series C due Jan 2012	01/10/92	01/10/12	20	2	\$2,000,000	\$2,000,000	(\$13,297)	(\$273,856)	\$1,712,847	\$85,642	9.947%	\$198,940	30					
35	8.250%	Series C due Feb 2012	01/15/92	02/01/12	20	2	\$3,000,000	\$3,000,000	(\$22,946)	(\$410,784)	\$2,566,270	\$85,542	9.925%	\$297,750	31					
36	8.530%	Series C due Dec 2021	12/16/91	12/16/21	30	12	\$15,000,000	\$15,000,000	(\$115,202)	(\$2,053,922)	\$12,830,877	\$85,539	10.066%	\$1,509,900	32					
37	8.375%	Series C due Dec 2021	12/31/91	12/31/21	30	12	\$5,000,000	\$5,000,000	(\$38,400)	(\$684,641)	\$4,276,959	\$85,539	9.889%	\$494,450	33					
38	8.260%	Series C due Jan 2022	01/08/92	01/07/22	30	12	\$5,000,000	\$5,000,000	(\$33,243)	(\$684,641)	\$4,282,117	\$85,642	9.745%	\$487,250	34					
39	8.270%	Series C due Jan 2022	01/09/92	01/10/22	30	12	\$4,000,000	\$4,000,000	(\$30,594)	(\$547,712)	\$3,421,693	\$85,542	9.768%	\$390,720	35					
40	<b>8.766%</b>	<b>Subtotal - Series C MTNs</b>			<b>23</b>	<b>4</b>	<b>\$111,000,000</b>	<b>\$111,000,000</b>	<b>(\$855,533)</b>	<b>(\$5,203,268)</b>	<b>\$104,941,200</b>	<b>\$100,000</b>	<b>9.354%</b>	<b>\$10,383,170</b>	<b>40</b>					
41																				
42	8.130%	Series E due Jan 2013	01/20/93	01/22/13	20	3	\$10,000,000	\$10,000,000	(\$75,827)	(\$671,687)	\$9,252,486	\$92,525	8.939%	\$893,900	41					
43	8.050%	Series E due Sep 2022	09/18/92	09/18/22	30	13	\$15,000,000	\$15,000,000	(\$131,471)	(\$1,695,566)	\$13,272,963	\$87,820	9.258%	\$1,388,700	42					
44	8.070%	Series E due Sep 2022	09/09/92	09/09/22	30	13	\$8,000,000	\$8,000,000	(\$70,118)	(\$904,302)	\$7,025,580	\$87,820	9.280%	\$742,400	43					
45	8.110%	Series E due Sep 2022	09/11/92	09/09/22	30	13	\$12,000,000	\$12,000,000	(\$105,177)	(\$1,356,453)	\$10,538,370	\$87,820	9.325%	\$1,119,000	44					
46	8.120%	Series E due Sep 2022	09/11/92	09/09/22	30	13	\$50,000,000	\$50,000,000	(\$438,238)	(\$5,651,887)	\$43,909,875	\$87,820	9.336%	\$4,668,000	45					
47	8.050%	Series E due Sep 2022	09/14/92	09/14/22	30	13	\$10,000,000	\$10,000,000	(\$87,648)	(\$1,130,377)	\$8,781,975	\$87,820	9.258%	\$925,800	46					
48	8.080%	Series E due Oct 2022	10/15/92	10/14/22	30	13	\$25,000,000	\$25,000,000	(\$2,061,627)	(\$2,061,627)	\$22,738,182	\$90,953	8.953%	\$2,238,250	47					
49	8.080%	Series E due Oct 2022	10/15/92	10/14/22	30	13	\$26,000,000	\$26,000,000	(\$2,081,988)	(\$2,938,981)	\$22,852,821	\$87,895	9.283%	\$2,413,580	48					
50	8.230%	Series E due Jan 2023	01/29/93	01/20/23	30	13	\$4,000,000	\$4,000,000	(\$51,229)	(\$88,989)	\$3,962,241	\$99,056	8.316%	\$332,640	49					
51	8.230%	Series E due Jan 2023	01/20/93	01/20/23	30	13	\$5,000,000	\$5,000,000	(\$37,914)	(\$335,843)	\$4,626,246	\$92,525	8.951%	\$447,550	50					
52	<b>8.100%</b>	<b>Subtotal - Series E MTNs</b>			<b>29</b>	<b>12</b>	<b>\$165,000,000</b>	<b>\$165,000,000</b>	<b>(\$1,303,552)</b>	<b>(\$16,835,712)</b>	<b>\$146,860,736</b>	<b>\$100,000</b>	<b>9.194%</b>	<b>\$15,169,820</b>	<b>51</b>					
53																				
54	7.260%	Series F due Jul 2023	07/22/93	07/21/23	30	14	\$11,000,000	\$11,000,000	(\$100,622)	(\$589,062)	\$10,310,316	\$93,730	7.804%	\$858,440	52					
55	7.260%	Series F due Jul 2023	07/22/93	07/21/23	30	14	\$27,000,000	\$27,000,000	(\$246,981)	(\$1,445,860)	\$25,307,139	\$93,730	7.804%	\$2,107,080	53					
56	7.230%	Series F due Aug 2023	08/16/93	08/16/23	30	14	\$15,000,000	\$15,000,000	(\$137,211)	(\$268,624)	\$14,594,165	\$97,294	7.457%	\$1,118,550	54					
57	7.240%	Series F due Aug 2023	08/16/93	08/16/23	30	14	\$30,000,000	\$30,000,000	(\$274,423)	(\$537,248)	\$29,188,329	\$97,294	7.467%	\$2,401,100	55					
58	6.750%	Series F due Sep 2023	09/14/93	09/14/23	30	14	\$2,000,000	\$2,000,000	(\$15,300)	\$0	\$1,984,700	\$99,235	6.810%	\$136,200	56					
59	6.720%	Series F due Sep 2023	09/14/93	09/14/23	30	14	\$2,000,000	\$2,000,000	(\$15,300)	\$0	\$1,984,700	\$99,235	6.780%	\$135,600	57					







Docket No. UE-210  
Exhibit PPL/309  
Witness: Bruce N. Williams

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of Bruce N. Williams**

**OPUC Data Request 120**

**August 2009**

### **OPUC Data Request 120**

Regarding Exhibit PPL/306, please provide a qualitative and quantitative cost-benefit analysis demonstrating that the refunding of the QUIDS securities was cost effective. Please provide this analysis in electronic format, with cell references and formulae intact.

### **Response to OPUC Data Request 120**

During November 2000, PacifiCorp redeemed all of the 8.55% and 8 3/8% QUIDS with cash received following the sale of its Australian subsidiary. The QUIDS had par call options which allowed the Company to redeem these higher cost securities without paying a premium. No replacement debt or preferred stock was issued.

If, however, the Company had elected to not call the QUIDS for redemption at that time, it is likely that the Company's next subsequent long-term debt issuance, which occurred in November 2001, would have been reduced by the principal amount of the QUIDS (\$175,825,925).

Please refer to Attachments OPUC 120 -1 to OPUC 120 -3, which show that the Company's weighted average cost of capital in this case would be higher than filed. The Company estimates that redeeming the QUIDS provides Oregon customers with an approximate \$500,000 annual benefit through lower revenue requirements.

**Please refer to non-confidential Attachment OPUC 120 -1, Attachment OPUC 120 -2 and Attachment OPUC 120 -3 on the enclosed CD.**

**PacifiCorp**

UE 210 WACC (December 31, 2009)  
(Exhibit PPL/300 Williams/5 (lines 7-15))

	% of Tot	Costs	WACC
LTD	48.5%	5.98%	2.90%
Pfd	0.3%	5.41%	0.02%
CSE	51.2%	11.00%	5.63%
	100.0%		<b>8.55%</b>

Proforma WACC  
(No QUIDS Redemp in 2000)

	% of Tot	Costs	WACC
LTD	48.5%	6.02%	2.92%
Pfd	0.3%	5.05%	0.02%
CSE	51.2%	11.00%	5.63%
	100.0%		<b>8.57%</b>

**PACIFICORP**  
**Electric Operations**  
**Pro Forma Cost of Long-Term Debt Summary**  
**(assumes no QUIDS redemption in Nov 2000)**  
**December 31, 2009**

LINE NO.	DESCRIPTION	AMOUNT CURRENTLY OUTSTANDING	ISSUANCE EXPENSES	REDEMPTION EXPENSES	NET PROCEEDS TO COMPANY	ANNUAL DEBT SERVICE COST	INTEREST RATE	ALL-IN COST	ORIG LIFE	YTM	LINE NO.
1											1
2	<b>Total First Mortgage Bonds</b>	<b>\$5,458,147,075</b>	<b>(\$57,205,020)</b>	<b>(\$32,177,777)</b>	<b>\$5,368,764,278</b>	<b>\$346,011,309</b>	<b>6.180%</b>	<b>6.339%</b>	<b>23.7</b>	<b>19.0</b>	2
3											3
4	Subtotal - Pollution Control Revenue Bonds secured by FMBs	\$400,470,000	(\$10,560,810)	(\$9,550,194)	\$380,358,996	\$14,310,270	3.260%	3.573%	28.0	11.5	4
5	Subtotal - Pollution Control Revenue Bonds	\$337,900,000	(\$4,294,232)	(\$7,621,229)	\$325,984,539	\$7,809,876	2.131%	2.311%	27.8	8.2	5
6	<b>Total Pollution Control Revenue Bonds</b>	<b>\$738,370,000</b>	<b>(\$14,855,042)</b>	<b>(\$17,171,423)</b>	<b>\$706,343,535</b>	<b>\$22,120,146</b>	<b>2.743%</b>	<b>2.996%</b>	<b>27.9</b>	<b>10.0</b>	6
7											7
8	<b>Total QUIDS*</b>	<b>\$175,825,925</b>	<b>(\$6,844,160)</b>	<b>\$0</b>	<b>\$168,981,765</b>	<b>\$15,455,318</b>	<b>8.431%</b>	<b>8.790%</b>	<b>37.0</b>	<b>22.5</b>	8
9											9
10	<b>Total Cost of Long Term Debt</b>	<b>\$6,372,343,000</b>	<b>(\$78,904,221)</b>	<b>(\$49,349,200)</b>	<b>\$6,244,089,578</b>	<b>\$383,586,773</b>	<b>5.844%</b>	<b>6.020%</b>	<b>24.6</b>	<b>18.1</b>	10
11											11
12	<i>*subsequent changes in accounting and rating agency treatment of QUIDS would have necessitated their treatment as Long-Term Debt if still outstanding as of 12/31/09.</i>										12
13											13

**PACIFICORP**  
Electric Operations  
Pro Forma Cost of Long-Term Debt Detail  
(assumes no QUIDS redemption in Nov 2009)  
December 31, 2009

LINE NO.	INTEREST RATE	DESCRIPTION (b)	ISSUANCE DATE (c)	MATURITY DATE (d)	ORIG DATE (e)	VTM (f)	PRINCIPAL AMOUNT		ISSUANCE EXPENSES (i)	REDEMPTION EXPENSES (j)	DOLLAR AMOUNT (k)	PRINCIPAL AMOUNT (l)	MONEY TO COMPANY (m)	ANNUAL DEBT SERVICE COST (n)	LINE NO.
							ORIGINAL ISSUE (g)	CURRENTLY OUTSTANDING (h)							
1	7.978%	First Mortgage Bonds												1	
2	7.978%	C-1 Series due thru Oct 2011	04/15/92	10/01/11	19	2	\$4,422,000	\$4,422,000	\$0	\$0	\$412,000	\$100,000	7.978%	2	
3	7.978%	C-2 Series due thru Oct 2011	04/15/92	10/01/12	20	1	\$19,772,000	\$3,590,000	\$0	\$0	\$1,590,000	\$100,000	8.493%	3	
4	8.100%	C-3 Series due thru Oct 2013	04/15/92	10/01/13	20	3	\$16,203,000	\$4,247,000	\$0	\$0	\$3,301,000	\$100,000	8.493%	4	
5	8.294%	C-4 Series due thru Oct 2014	04/15/92	10/01/14	21	3	\$28,218,000	\$9,301,000	\$0	\$0	\$3,301,000	\$100,000	8.734%	5	
6	8.294%	C-5 Series due thru Oct 2015	04/15/92	10/01/15	22	4	\$46,946,000	\$17,918,000	\$0	\$0	\$1,918,000	\$100,000	8.635%	6	
7	8.470%	C-6 Series due thru Oct 2016	04/15/92	10/01/16	22	4	\$18,750,000	\$8,316,000	\$0	\$0	\$818,000	\$100,000	8.470%	7	
8	8.470%	C-7 Series due thru Oct 2017	04/15/92	10/01/17	22	3	\$19,609,000	\$9,385,000	\$0	\$0	\$818,000	\$100,000	8.470%	8	
9	8.506%	Subtotal - Amortizing FMBs												9	
10	8.506%						\$53,371,000	\$53,371,000	\$0	\$0	\$53,371,000		8.506%	10	
11	6.900%	Series due Nov 2011	1/21/01	11/15/11	10	2	\$309,108,797	\$309,108,797	(\$4,165,464)	(\$4,165,464)	\$385,943,333	\$98,932	7.051%	11	
12	6.900%	Series due Sep 2013	09/08/03	09/15/13	10	2	\$192,377,521	\$192,377,521	(\$5,967,819)	(\$5,967,819)	\$198,310	\$96,189	5.961%	12	
13	5.450%	Series due Aug 2014	1/27/04	11/15/14	30	5	\$200,000,000	\$200,000,000	(\$2,170,365)	(\$2,170,365)	\$197,829,635	\$98,916	5.090%	13	
14	4.950%	Series due Nov 2031	1/27/04	11/15/31	30	22	\$234,065,278	\$234,065,278	(\$2,887,827)	(\$2,887,827)	\$231,177,451	\$98,766	7.807%	14	
15	7.700%	Series due Aug 2035	06/24/04	08/01/35	30	25	\$200,000,000	\$200,000,000	(\$3,614,365)	(\$3,614,365)	\$196,385,635	\$98,693	5.994%	15	
16	5.900%	Series due Aug 2035	06/24/04	08/01/35	30	25	\$200,000,000	\$200,000,000	(\$3,992,021)	(\$3,992,021)	\$196,007,979	\$98,237	5.909%	16	
17	6.100%	Series due Aug 2036	08/10/06	08/01/36	30	27	\$600,000,000	\$600,000,000	(\$4,048,711)	(\$4,048,711)	\$595,951,289	\$98,843	6.185%	17	
18	7.550%	Series due Apr 2037	03/14/07	04/01/37	30	27	\$600,000,000	\$600,000,000	(\$5,873,367)	(\$5,873,367)	\$594,126,633	\$99,898	5.737%	18	
19	6.250%	Series due Oct 2037	10/03/07	10/15/37	30	28	\$600,000,000	\$600,000,000	(\$3,827,964)	(\$3,827,964)	\$596,172,036	\$99,021	5.752%	19	
20	6.500%	Series due Jul 2038	07/17/08	07/15/38	10	9	\$300,000,000	\$300,000,000	(\$3,894,418)	(\$3,894,418)	\$296,105,582	\$98,709	6.448%	20	
21	5.500%	Series due Jul 2038	07/17/08	07/15/38	10	9	\$300,000,000	\$300,000,000	(\$3,894,418)	(\$3,894,418)	\$296,105,582	\$98,709	6.448%	21	
22	6.500%	Series due Jan 2039	01/08/09	01/15/39	10	9	\$350,000,000	\$350,000,000	(\$3,285,000)	(\$3,285,000)	\$346,715,000	\$98,630	6.681%	22	
23	5.500%	Series due Jan 2039	01/08/09	01/15/39	10	9	\$350,000,000	\$350,000,000	(\$3,285,000)	(\$3,285,000)	\$346,715,000	\$98,630	6.681%	23	
24	6.000%	Series due Jan 2039	1/23/09	1/23/39	30	29	\$500,000,000	\$500,000,000	(\$4,600,000)	(\$4,600,000)	\$495,400,000	\$99,000	6.139%	24	
25	6.320%	Pro Forma Series					\$14,602,000	\$14,602,000	(\$18,000,000)	(\$18,000,000)	\$14,455,980	\$99,000	6.395%	25	
26	5.996%	Subtotal - Bullet FMBs												26	
27	8.766%						\$4,888,676,075	\$4,888,676,075	(\$52,947,298)	(\$52,947,298)	\$4,835,728,777		6.115%	27	
28	8.150%	Series C due Aug 2011	08/09/01	08/09/11	20	2	\$8,000,000	\$8,000,000	(\$75,327)	(\$75,327)	\$7,924,673	\$99,058	9.254%	28	
29	8.450%	Series C due Sep 2011	08/16/01	09/01/11	20	2	\$20,000,000	\$20,000,000	(\$132,118)	(\$132,118)	\$19,867,882	\$99,339	9.022%	29	
30	8.920%	Series C due Sep 2011	08/16/01	09/01/11	20	2	\$20,000,000	\$20,000,000	(\$188,318)	(\$188,318)	\$19,811,682	\$99,058	9.022%	30	
31	8.950%	Series C due Sep 2011	08/16/01	09/01/11	20	2	\$3,000,000	\$3,000,000	(\$175,398)	(\$175,398)	\$2,824,602	\$99,238	9.022%	31	
32	8.200%	Series C due Dec 2011	12/31/01	12/31/11	20	2	\$3,000,000	\$3,000,000	(\$32,040)	(\$32,040)	\$2,967,960	\$99,380	9.036%	32	
33	8.200%	Series C due Dec 2011	12/31/01	12/31/11	20	2	\$3,000,000	\$3,000,000	(\$32,040)	(\$32,040)	\$2,967,960	\$99,380	9.036%	33	
34	8.260%	Series C due Jan 2012	01/09/02	01/04/12	20	2	\$2,000,000	\$2,000,000	(\$27,649)	(\$27,649)	\$1,972,351	\$98,542	9.947%	34	
35	8.280%	Series C due Feb 2012	01/09/02	02/01/12	20	2	\$2,000,000	\$2,000,000	(\$27,649)	(\$27,649)	\$1,972,351	\$98,542	9.947%	35	
36	8.330%	Series C due Feb 2012	01/09/02	02/01/12	20	2	\$2,000,000	\$2,000,000	(\$27,649)	(\$27,649)	\$1,972,351	\$98,542	9.947%	36	
37	8.375%	Series C due Dec 2021	12/31/01	12/31/21	30	12	\$5,000,000	\$5,000,000	(\$38,400)	(\$38,400)	\$4,961,600	\$99,539	10.066%	37	
38	8.260%	Series C due Dec 2021	12/31/01	12/31/21	30	12	\$5,000,000	\$5,000,000	(\$38,400)	(\$38,400)	\$4,961,600	\$99,539	10.066%	38	
39	8.270%	Series C due Jan 2022	01/08/02	01/07/22	30	12	\$5,000,000	\$5,000,000	(\$35,593)	(\$35,593)	\$4,965,407	\$99,596	9.745%	39	
40	8.270%	Series C due Jan 2022	01/08/02	01/07/22	30	12	\$5,000,000	\$5,000,000	(\$35,593)	(\$35,593)	\$4,965,407	\$99,596	9.745%	40	
41	8.766%	Subtotal - Series C MTNs												41	
42	8.130%	Series E due Jan 2013	01/20/03	01/22/13	20	3	\$10,000,000	\$10,000,000	(\$75,827)	(\$75,827)	\$9,924,173	\$92,525	8.939%	42	
43	8.150%	Series E due Sep 2023	09/18/02	09/18/22	30	13	\$15,000,000	\$15,000,000	(\$131,471)	(\$131,471)	\$14,868,729	\$92,820	9.258%	43	
44	8.070%	Series E due Sep 2022	09/09/02	09/09/22	30	13	\$8,000,000	\$8,000,000	(\$70,117)	(\$70,117)	\$7,929,883	\$87,820	9.280%	44	
45	8.100%	Series E due Sep 2022	09/11/02	09/09/22	30	13	\$12,000,000	\$12,000,000	(\$105,178)	(\$105,178)	\$11,894,822	\$87,820	9.325%	45	
46	8.120%	Series E due Sep 2022	09/11/02	09/09/22	30	13	\$5,000,000	\$5,000,000	(\$43,238)	(\$43,238)	\$4,956,762	\$87,820	9.258%	46	
47	8.050%	Series E due Sep 2022	09/14/02	09/14/22	30	13	\$10,000,000	\$10,000,000	(\$87,648)	(\$87,648)	\$9,912,352	\$87,820	8.953%	47	
48	8.080%	Series E due Oct 2022	10/15/02	10/14/22	30	13	\$25,000,000	\$25,000,000	(\$208,188)	(\$208,188)	\$24,791,812	\$99,953	8.953%	48	
49	8.230%	Series E due Oct 2022	10/15/02	10/14/22	30	13	\$26,000,000	\$26,000,000	(\$211,989)	(\$211,989)	\$25,789,821	\$99,956	9.283%	49	
50	8.230%	Series E due Jan 2023	01/20/03	01/20/23	30	13	\$5,000,000	\$5,000,000	(\$37,914)	(\$37,914)	\$4,962,086	\$99,056	8.316%	50	
51	8.230%	Series E due Jan 2023	01/20/03	01/20/23	30	13	\$5,000,000	\$5,000,000	(\$37,914)	(\$37,914)	\$4,962,086	\$99,056	8.316%	51	
52	8.100%	Subtotal - Series E MTNs												52	
53	7.560%	Series F due Jul 2023	07/22/03	07/21/23	30	14	\$11,000,000	\$11,000,000	(\$130,552)	(\$130,552)	\$10,869,448	\$99,525	9.194%	53	
54	7.560%	Series F due Jul 2023	07/22/03	07/21/23	30	14	\$11,000,000	\$11,000,000	(\$130,552)	(\$130,552)	\$10,869,448	\$99,525	9.194%	54	
55	7.300%	Series F due Aug 2023	08/16/03	08/16/23	30	14	\$15,000,000	\$15,000,000	(\$246,982)	(\$246,982)	\$14,753,018	\$99,730	7.804%	55	
56	7.300%	Series F due Aug 2023	08/16/03	08/16/23	30	14	\$15,000,000	\$15,000,000	(\$246,982)	(\$246,982)	\$14,753,018	\$99,730	7.804%	56	
57	7.240%	Series F due Aug 2023	08/16/03	08/16/23	30	14	\$30,000,000	\$30,000,000	(\$374,423)	(\$374,423)	\$29,625,577	\$99,294	7.457%	57	
58	6.750%	Series F due Sep 2023	09/14/03	09/14/23	30	14	\$2,000,000	\$2,000,000	(\$15,300)	(\$15,300)	\$1,984,700	\$99,233	6.807%	58	
59	6.750%	Series F due Sep 2023	09/14/03	09/14/23	30	14	\$2,000,000	\$2,000,000	(\$15,300)	(\$15,300)	\$1,984,700	\$99,233	6.807%	59	
60	6.750%	Series F due Sep 2023	09/14/03	09/14/23	30	14	\$5,000,000	\$5,000,000	(\$38,250)	(\$38,250)	\$4,961,750	\$99,233	6.865%	60	
61	6.750%	Series F due Oct 2023	10/23/03	10/23/23	30	14	\$12,000,000	\$12,000,000	(\$131,861)	(\$131,861)	\$11,868,139	\$99,238	6.807%	61	
62	6.750%	Series F due Oct 2023	10/23/03	10/23/23	30	14	\$16,000,000	\$16,000,000	(\$178,583)	(\$178,583)	\$15,821,417	\$99,238	6.807%	62	
63	6.704%	Series F due Oct 2023	10/23/03	10/23/23	30	14	\$20,000,000	\$20,000,000	(\$233,326)	(\$233,326)	\$19,768,074	\$99,238	6.810%	63	
64	6.704%	Series F due Oct 2023	10/23/03	10/23/23	30	14	\$20,000,000	\$20,000,000	(\$233,326)	(\$233,326)	\$19,768,074	\$99,238	6.810%	64	
65	6.710%	Series G due Jan 2026	01/23/06	01/15/26	30	16	\$100,000,000	\$100,000,000	(\$904,467)	(\$904,467)	\$99,095,533	\$99,096	6.781%	65	
66	6.710%	Series G due Jan 2026	01/23/06	01/15/26											

**PACIFICORP**  
**Electric Operations**  
**Pro Forma Cost of Long-Term Debt Detail**  
 (assumes no QUIIDS redemption in Nov. 2000)  
 December 31, 2009

LINE NO.	INTEREST RATE	ISSUANCE DATE	MATURITY DATE	ORIG LIFE	YTM	PRINCIPAL AMOUNT		REDEMPTION AMOUNT	TOTAL AMOUNT	PER \$100 PRINCIPAL AMOUNT	MONEY TO COMPANY (%)	ANNUAL DEBT SERVICE COST	LINE NO.
						ORIGINAL ISSUE	CURRENTLY OUTSTANDING						
70													70
71													71
72	2.139%	11/7/94	05/01/13	18	3	\$40,655,000	\$40,655,000	(\$74,912)	\$39,705,929	\$97,666	2.295%	\$933,032	72
73	4.002%	01/4/88	12/01/14	26	4	\$17,000,000	\$15,500,000	(\$155,970)	\$14,264,181	\$95,672	4.280%	\$727,600	73
74	3.645%	12/2/84	12/01/14	30	5	\$15,000,000	\$15,000,000	(\$227,887)	\$14,772,113	\$98,481	4.091%	\$613,650	74
75	4.229%	01/7/91	12/01/16	35	7	\$45,000,000	\$45,000,000	(\$771,836)	\$41,649,562	\$92,555	4.125%	\$1,856,250	75
76	5.745%	12/29/86	12/01/16	28	12	\$8,500,000	\$8,500,000	(\$304,824)	\$8,195,176	\$89,869	4.447%	\$377,995	76
77	5.770%	11/01/93	11/01/23	30	14	\$8,500,000	\$8,500,000	(\$414,778)	\$7,459,117	\$90,394	6.338%	\$52,654	77
78	5.770%	11/01/93	11/01/23	30	14	\$16,400,000	\$16,400,000	(\$1,624,793)	\$4,033,154	\$90,394	6.302%	\$3,023,430	78
79	5.745%	11/01/93	11/01/23	30	14	\$16,400,000	\$16,400,000	(\$1,612,051)	\$14,565,392	\$97,169	6.607%	\$1,083,348	79
80	2.089%	11/7/94	11/01/24	30	15	\$8,190,000	\$8,190,000	(\$209,574)	\$9,099,807	\$96,385	2.209%	\$1,054,348	80
81	2.089%	11/7/94	11/01/24	30	15	\$8,190,000	\$8,190,000	(\$327,246)	\$7,862,554	\$96,385	2.242%	\$1,183,947	81
82	2.187%	11/7/94	11/01/24	30	15	\$15,060,000	\$15,060,000	(\$422,838)	\$14,637,162	\$96,651	2.344%	\$2,735,895	82
83	2.059%	11/7/94	11/01/24	30	15	\$21,260,000	\$21,260,000	(\$381,471)	\$20,878,529	\$97,183	2.187%	\$464,956	83
84	4.231%	11/7/95	11/01/25	30	16	\$5,300,000	\$5,300,000	(\$112,043)	\$3,661,169	\$97,509	4.381%	\$332,193	84
85	4.330%	11/7/95	11/01/25	30	16	\$5,300,000	\$5,300,000	(\$112,043)	\$3,661,169	\$97,509	4.381%	\$332,193	85
86	3.260%	01/4/88	01/01/14	26	4	\$11,500,000	\$11,500,000	(\$9,450,194)	\$2,050,806	\$98,162	3.573%	\$977,240	86
87	3.260%	01/4/88	01/01/14	26	4	\$11,500,000	\$11,500,000	(\$9,450,194)	\$2,050,806	\$98,162	3.573%	\$977,240	87
88	2.024%	07/2/80	07/01/15	25	6	\$70,000,000	\$70,000,000	(\$84,822)	\$11,022,228	\$95,852	2.236%	\$257,140	88
89	2.024%	07/2/80	07/01/15	25	6	\$70,000,000	\$70,000,000	(\$84,822)	\$11,022,228	\$95,852	2.236%	\$257,140	89
90	2.024%	05/2/80	07/01/15	24	6	\$45,000,000	\$45,000,000	(\$660,730)	\$44,339,270	\$97,920	2.132%	\$1,492,400	90
91	2.024%	05/2/80	07/01/15	24	6	\$50,000,000	\$50,000,000	(\$872,505)	\$49,126,495	\$92,353	2.477%	\$1,101,150	91
92	2.024%	01/4/88	01/01/17	29	7	\$50,000,000	\$50,000,000	(\$42,443)	\$49,575,556	\$97,391	2.174%	\$1,081,300	92
93	2.024%	01/4/88	01/01/17	30	8	\$63,000,000	\$63,000,000	(\$380,198)	\$62,619,802	\$96,903	2.165%	\$895,688	93
94	1.563%	01/4/88	01/01/18	30	8	\$63,000,000	\$63,000,000	(\$1,013,283)	\$61,986,519	\$96,903	1.747%	\$895,688	94
95	1.563%	09/29/92	12/01/20	28	11	\$22,485,000	\$22,485,000	(\$331,905)	\$22,153,095	\$96,744	1.708%	\$375,949	95
96	1.563%	09/29/92	12/01/20	28	11	\$9,335,000	\$9,335,000	(\$242,164)	\$9,092,836	\$96,041	1.708%	\$159,442	96
97	1.563%	09/29/92	12/01/20	28	11	\$6,305,000	\$6,305,000	(\$167,534)	\$6,137,466	\$97,322	1.742%	\$109,833	97
98	2.023%	12/14/95	11/01/25	30	16	\$24,400,000	\$24,400,000	(\$323,000)	\$24,077,000	\$94,201	2.144%	\$523,136	98
99	6.150%	09/24/96	09/30/30	34	21	\$12,675,000	\$12,675,000	(\$438,468)	\$12,236,532	\$94,201	6.579%	\$833,888	99
100	2.131%			28	8	\$337,908,000	\$337,908,000	(\$4,294,232)	\$333,613,776	\$325,984,539	2.311%	\$7,809,876	100
101	2.743%			28	10	\$738,370,000	\$738,370,000	(\$14,855,042)	\$723,514,958	\$796,343,535	2.996%	\$22,120,146	101
102	8.375%	05/11/95	06/30/35	40	26	\$120,000,000	\$120,000,000	(\$4,323,604)	\$115,676,396	\$96,397	8.699%	\$10,438,800	102
103	8.375%	10/05/95	12/31/25	30	16	\$55,825,925	\$55,825,925	(\$2,520,536)	\$53,305,389	\$95,485	8.986%	\$5,645,318	103
104	8.431%			37	22	\$175,825,925	\$175,825,925	(\$6,844,160)	\$168,981,765	\$95,485	8.790%	\$18,455,318	104
105	8.431%			25	18	\$6,372,345,000	\$6,372,345,000	(\$78,904,221)	\$6,293,440,779	\$6,293,440,779	6.020%	\$383,586,773	105
106													106
107													107
108													108
109													109

**PACIFICORP**  
**Electric Operations**  
**Pro Forma Cost of Preferred Stock**  
**(assumes no QUIDS redemption in Nov 2000\*)**  
**December 31, 2009**

Line No.	Description of Issue	Issuance Date	Call Price	Annual Dividend Rate	Shares O/S	Total Par or Stated Value O/S	Net Premium & (Expense)	Net Proceeds to Company	% of Gross Proceeds	Cost of Money	Annual Cost	Line No.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
1	5% Preferred Stock, \$100 Par Value	(a)	110.00%	5.000%	126,243	\$12,624,300	(\$98,049)	\$12,526,251	99.223%	5.039%	\$636,156	1
2												2
3	Serial Preferred, \$100 Par Value											3
4	4.52% Series	Oct-55	103.50%	4.520%	2,065	\$206,500	(\$9,676)	\$196,824	95.314%	4.742%	\$9,793	4
5	7.00% Series	(b)	None	7.000%	18,046	\$1,804,600	(c)	\$1,804,600	100.000%	7.000%	\$126,322	5
6	6.00% Series	(b)	None	6.000%	5,930	\$593,000	(c)	\$593,000	100.000%	6.000%	\$35,580	6
7	5.00% Series	(b)	100.00%	5.000%	41,908	\$4,190,800	(c)	\$4,190,800	100.000%	5.000%	\$209,540	7
8	5.40% Series	(b)	101.00%	5.400%	65,959	\$6,595,900	(c)	\$6,595,900	100.000%	5.400%	\$356,179	8
9	4.72% Series	Aug-63	103.50%	4.720%	69,890	\$6,989,000	(\$30,349)	\$6,958,651	99.566%	4.741%	\$331,320	9
10	4.56% Series	Feb-65	102.34%	4.560%	84,592	\$8,459,200	(\$49,071)	\$8,410,129	99.420%	4.587%	\$387,990	10
11												11
12												12
13												13
14												14
15	<b>Total Cost of Preferred Stock</b>				<b>414,633</b>	<b>\$41,463,300</b>	<b>(\$187,146)</b>	<b>\$41,276,155</b>		<b>5.048%</b>	<b>\$2,092,879</b>	15
16												16
17												17
18												18
19	(a) Issue replaced 6% and 7% preferred stock of Pacific Power & Light Company and Northwestern Electric Company and 5% preferred stock of Mountain States Power Company, most of which sold in the 1920's and 1930's.											19
20	(b) These issues replaced an issue of The California Oregon Power Company as a result of the merger of that Company into Pacific Power & Light Co.											20
21	(c) Original issue expense/premium has been fully amortized or expensed.											21
22												22
23	*subsequent changes in accounting and rating agency treatment for QUIDS would have necessitated their treatment as Long-term Debt if still outstanding as of 12/31/09.											23





Docket No. UE-210  
Exhibit PPL/615  
Witness: Gregory N. Duvall

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Reply Testimony of Gregory N. Duvall**

**August 2009**

1 **Q. Are you the same Gregory N. Duvall who previously provided testimony in**  
2 **this docket?**

3 A. Yes, as Exhibits PPL/600, PPL/605, and PPL/614.

4 **Purpose and Summary**

5 **Q. Please explain the purpose of your reply testimony.**

6 A. The purpose of my reply testimony is to:

- 7 • Respond to the adjustments and criticisms of the Company’ s monthly  
8 coincident peak forecasts<sup>1</sup> presented by the Staff of the Oregon Public Utility  
9 Commission (“ Staff” ) witness Mr. Robert Clark. Monthly coincident peak  
10 forecast values are primarily used to develop the System Capacity (“ SC” ) and  
11 related allocation factors which are used to allocate a significant portion of the  
12 Company’ s costs.
- 13 • Respond to the proposals on changes in methodology and the inclusion of  
14 variable costs of new resources in stand-alone Transition Adjustment  
15 Mechanism (“ TAM” ) filings presented by Staff witness Ms. Kelcey Brown  
16 and Industrial Customers of Northwest Utilities (“ ICNU” ) witness Mr.  
17 Randall Falkenberg.
- 18 • Respond to the proposal on line losses presented by Fred Meyer Stores  
19 witness Mr. Kevin C. Higgins.
- 20 • Respond to Staff witness Mr. Michael Dougherty’ s recommendation  
21 concerning the sale of Renewable Energy Certificates (“ RECs” ).

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<sup>1</sup> Each jurisdiction’ s monthly coincident peak load represents that jurisdiction’ s contribution to the system monthly coincident peak load.

1 **Q. Please summarize your reply testimony with regard to the load forecast**  
2 **changes proposed by Staff witness Mr. Robert Clark.**

3 A. In my reply testimony, I demonstrate the following:

- 4 • First, although Mr. Clark prepared forecast models for monthly coincident  
5 peak loads for all 12 months in Utah and Oregon for a total of 24 forecast  
6 models, he selectively excluded half of those forecast models in his testimony.  
7 Had he used all of his forecast models consistently, Oregon' s SC factor would  
8 increase by 0.27 percent as compared to the Company' s filing, rather than  
9 decrease as proposed by Mr. Clark.
- 10 • Second, Mr. Clark' s proposed load reductions in Oregon for the three months  
11 of January, February and September cause monthly peak load to shift to  
12 another hour or another day. Because of this, Mr. Clark' s new hourly load  
13 forecast for these three months is not appropriate for use in calculating the SC  
14 factor since that hour is no longer the peak hour. Mr. Clark has not attempted  
15 to calculate a new SC allocation factor using the new hour of monthly system  
16 coincident peak load. Had he done so, he would have found that the SC factor  
17 would again have increased by 0.12 percent as compared to what Mr. Clark  
18 proposed.
- 19 • Third, three of the nine coincident peak load forecasts sponsored by Mr. Clark  
20 for Utah loads exceed Utah' s monthly peak load for the respective month.  
21 This is impossible by definition.
- 22 • Fourth, three of the 12 peak load forecast models are developed without any  
23 consideration of the temperature on the day of the peak load. One month is

1 modeled solely using the temperature from two days prior to the peak load  
2 day. This is like using only Wednesday' s weather to predict Friday' s load.  
3 Two other months rely solely on the prior day' s temperature, which would be  
4 like using only Thursday' s weather to predict Friday' s load. In fact, only three  
5 of Mr. Clark' s 12 proposed forecast models fully take into account the  
6 temperature on the peak day.

- 7 • Fifth, Mr. Clark' s proposal is incomplete since it only addresses 12 out of 72  
8 monthly peak loads.
- 9 • Sixth, Mr. Clark uses unconventional statistical modeling methods with  
10 incorrect specification.
- 11 • Finally, Mr. Clark makes no attempt to adjust energy sales or hourly loads to  
12 be consistent with the proposed changes to peak loads

13 Based on these reasons, I recommend the Commission reject Staff witness Mr.  
14 Clark' s recommendation to change the SC allocation factor based on his proposed  
15 load forecasts changes. I will discuss the above objections in detail in the  
16 remainder of my testimony.

17 **Q. Please summarize your testimony on the TAM-related issues.**

18 A. With regard to allowing methodology changes in stand-alone TAMs, I  
19 recommend that any solution be fair and balanced. For inclusion of the variable  
20 costs of new resources in a stand-alone TAM, I adopt ICNU' s recommendation to  
21 allow exclusion of variable costs of selected new resources that the Company has  
22 not owned or purchased for more than six months prior to the stand-alone TAM  
23 filing. On the issue of line losses, I demonstrate that distribution losses are not

1 avoided when customers choose direct access and therefore should not be  
2 included in the calculation of the transition credit.

3 **Q. Please summarize your testimony on the sale of RECs.**

4 A. I recommend that the Commission reject Staff’ s proposal to place any gain on the  
5 sales of RECs into the property sales balancing account. I explain that the  
6 Oregon-allocated RECs are being banked for future compliance with Oregon’ s  
7 Renewable Portfolio Standard. As such, Staff’ s recommended approach is  
8 unnecessary.

9 **Q. How is your testimony organized?**

10 A. I have divided my testimony into three sections. Section I addresses the load  
11 forecast, Section II addresses the TAM-related issues, and Section III addresses  
12 the issue related to RECs. In Section I, I first summarize Staff’ s proposed  
13 changes. Second, I provide a brief review of the Company’ s peak forecasting  
14 methodology. Third, I discuss the Company’ s specific objections to Staff’ s  
15 proposal. Finally, I discuss methodology concerns. In Section II, I address the  
16 three TAM-related issues. In Section III, I address the RECs-related issue.

17 **SECTION I – LOAD FORECAST**

18 **Summary of Staff Proposal**

19 **Q. Please summarize Staff’ s proposed changes to the Company’ s coincident  
20 peak load forecasts.**

21 A. Staff proposed changes to 12 out of 72 monthly coincident peak load forecast

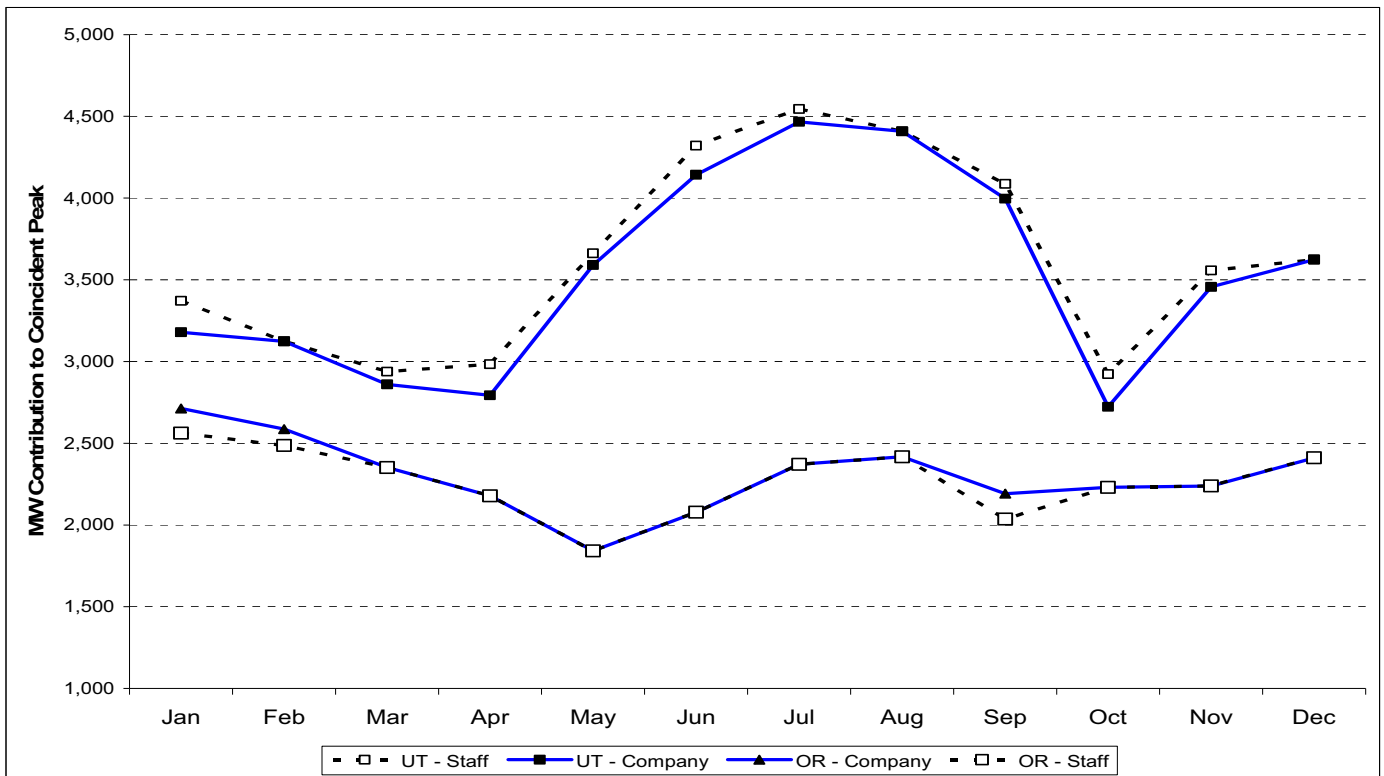
1 values that make up the SC factor<sup>2</sup>; three in Oregon and nine in Utah. Staff  
 2 accepted the remaining 60 monthly peak forecasts presented by the Company.  
 3 Staff also accepted the Company’ s energy sales forecast and hourly load forecast.  
 4 The differences between Staff’ s proposal and the Company’ s forecast are  
 5 illustrated in Table 1 and Chart 1.

**Table 1**

**Table 1**  
OPUC Staff’s Proposed Monthly CP forecast Change (in MW)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	SUM of CPs	Change in SC factor
OR	-151.3	-100.9	0.0	0.0	0.0	0.0	0.0	0.0	-155.6	0.0	0.0	0.0	-407.8	-0.60%
CA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.01%
WA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.06%
UT	191.2	0.0	78.4	189.8	71.3	178.6	78.0	0.0	89.7	200.5	100.7	0.0	1,178.3	0.84%
WY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.11%
ID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.04%

**Chart 1 - 2010 Coincident Peak Overview**



2 The SC factor is defined as the sum of the 12 monthly coincident peaks (“ 12 CP” ). Since the Company has six jurisdictions, all 72 monthly peaks (6 jurisdictions and 12 months) are required to determine the SC factor.

1 **Q. How did Staff prepare its partial peak load forecast?**

2 A. Staff prepared its partial peak load forecast in two basic steps. First, Staff  
3 specified its models using regression analysis. As I demonstrate later in my  
4 testimony, the models are seriously flawed primarily because they do not include  
5 important explanatory variables and use only temperatures from a single year. In  
6 addition, each of Staff's 12 forecasts uses a different methodology and/or input  
7 assumptions. Second, when using the model to forecast loads in the test period,  
8 Staff again uses only one single monthly temperature from an arbitrary historic  
9 year. For each monthly forecast, Staff then uses the lowest single monthly  
10 temperature for winter months and the highest single monthly temperature for  
11 summer months with few exceptions regardless of what day that low or high  
12 temperature occurred. Both the specification and use of the model are illogical  
13 and are not consistent with the traditional use of normalized weather data to  
14 forecast loads.

15 **Review of the Company's Peak Forecast Methodology**

16 **Q. How does the Company forecast monthly coincident peak loads?**

17 A. First, monthly non-coincident peak loads are forecast directly for each jurisdiction  
18 based on specific information applicable to each jurisdiction. The primary drivers  
19 of the peak model are the average daily temperature on the day of the peak and  
20 historical trends in peak loads. Other inputs include the average daily temperature  
21 from one and two days prior to the monthly peak and economic and demographic  
22 variables. Second, monthly coincident peak loads are forecast by applying



1 historical relationships between non-coincident and coincident peak loads  
2 experienced in each jurisdiction.

3 **Q. Does Staff accept the Company' s peak forecast?**

4 A. Yes, for the vast majority of monthly peak loads. Specifically, Staff accepted the  
5 Company' s method of forecasting coincident peaks for 60 of the 72 monthly  
6 coincident peak forecasts. The Company' s monthly peak loads are used by Staff  
7 to forecast all of the monthly coincident peak loads for California, Idaho,  
8 Washington and Wyoming, nine months in Oregon and three months in Utah. For  
9 the remaining 12 monthly coincident peak loads, three in Oregon and nine in  
10 Utah, Staff attempts to forecast monthly coincident peak loads using various  
11 alternative methods.

12 **Q. Has the Company' s load forecasting and peak methodology been reviewed  
13 by any independent experts?**

14 A. Yes. The Company' s load forecasting methodology was developed by ITRON, a  
15 leading expert in the field of utility load forecasting techniques. In addition, it has  
16 been independently reviewed by GDS Associates, Atlanta, Georgia who  
17 concluded that “ the methodology and models currently used by PacifiCorp meet  
18 or exceed industry standards.”

19 **Specific Critique of Staff' s Proposed Peak Forecast Methodologies**

20 **Q. Please describe more specifically the problems with Staff' s proposed forecast  
21 methodology.**

22 A. Staff' s proposal is incomplete, results in unintended consequences, uses  
23 temperature inappropriately, both to develop the models and in the use of the

1 models to forecast load in the test period, ignores important explanatory variables,  
2 and is inconsistent with the energy and hourly load forecasts.

3 **Q. Please indicate why you claim that Staff’s proposal is incomplete.**

4 A. Mr. Clark selectively presents 12 monthly peak forecasting models, each of which  
5 reduce Oregon’s SC and related allocation factors by either lowering Oregon’s  
6 peak load forecast or raising Utah’s peak load forecast. Staff’s work papers,  
7 however, include forecast models for all 24 months which include the remaining  
8 nine months in Oregon and three months in Utah. No models were developed for  
9 Wyoming, Idaho, Washington or California. Coincident peak forecasts for these  
10 missing months are displayed in Table 2 and are based on Staff’s own regression  
11 models from their work papers. The Company corrected Staff’s use of  
12 temperature for forecasting test period loads, where needed, based on the mapping  
13 provided by Staff in Mr. Clark’s opening testimony. Had Mr. Clark correctly  
14 included all 24 forecasts in his testimony, Oregon’s SC allocation factor would  
15 have increased by 0.88 percent to 27.49 percent, as compared to the 26.61 percent  
16 resulting from the selective application of only 12 of the 24 monthly forecasts  
17 included in Staff’s testimony. This corrected SC factor for Oregon is 0.27 percent  
18 higher than the respective SC factor included in the Company’s filing.

**Table 2**

OPUC Staff’s Proposed Monthly CP forecast Change (in MW)													SC Factor	SC Factor	Change in SC Factor
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Staff’s methodology used for 12 months for OR and UT	Staff’s Proposal: Changes to CP for three months in Oregon and nine Months in Utah	Impact of Including all 12 Months for Oregon and Utah
OR	-151.3	-100.9	-3.7	195.8	93.9	5.6	265.1	-23.9	-155.6	49.9	536.0	149.0	27.49%	26.61%	0.88%
CA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.78%	1.80%	-0.02%
WA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.91%	8.01%	-0.10%
UT	191.2	13.7	78.4	189.8	71.3	178.6	78.0	37.0	89.7	200.5	100.7	27.1	42.11%	42.59%	-0.48%
WY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.94%	15.14%	-0.20%
ID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.78%	5.85%	-0.08%

1 **Q. Do Staff’ s forecasts produce any unintended consequences?**

2 A. Yes. In all three months that Staff presented new forecasts for Oregon - January,  
3 February and September - the reduction in Oregon load shifted the monthly peak  
4 load to another hour or day. As a result, a different hour would need to be used for  
5 the development of the SC factor, negating the effect that all three of Staff’ s  
6 adjustments to Oregon load would have on the SC factor.

7 The other significant unintended consequence is that for three of the nine  
8 months in Utah - April, June and November - Staff’ s forecasts of load at the time  
9 of monthly system coincident peak exceeds Utah’ s non-coincident peak load for  
10 that month. This is an impossible outcome by definition and makes these three  
11 forecasts unusable for determining the SC allocation factor.

12 **Q. What do you conclude from these unintended consequences?**

13 A. Half of Staff’ s proposed forecasts have serious unintended consequences that  
14 make them unable to be reliably used in the calculation of the SC factor. At a  
15 minimum, these six forecasts should be rejected.

16 **Q. Please explain what temperature should drive the forecast for the peak day.**

17 A. One of the most important determinants of peak load is temperature. Because  
18 there is typically a “ build up” effect, the temperature on the peak day and the  
19 temperatures before the peak days are all important determinants of the peak.  
20 However, the temperature on the peak day is the key temperature. It is obvious  
21 that the importance of temperature declines with the time span before the peak.

1 **Q. Please explain how Staff chose temperatures to estimate the regression**  
2 **equations.**

3 A. Staff's criteria for choosing the temperature is based on the correlation between  
4 coincident peak load and temperatures on the peak day, one day and two days  
5 prior to peak days. Staff generally chose the temperature with the highest  
6 correlation to the peak load to be used in the estimation of the regression. As a  
7 result, Staff used the temperature associated with the peak day, or a day prior to  
8 peak day, or two days prior to peak, or on occasion, a combination of the above.  
9 By doing that Staff has ignored the importance of the temperature of the peak day  
10 in a number of cases.

11 **Q. What were the results of Staff's temperature selections for specifying their**  
12 **models?**

13 A. The results of Staff's method are shown in Table 3 and are compared to those  
14 used by the Company. As a result of their correlation analysis, Staff did not select  
15 to use the temperature on the day of peak load in developing forecast models for  
16 January in Oregon, and for January and March in Utah, and only placed a 16.6  
17 percent weighting on the temperature on the day of the peak load for the model  
18 for October in Utah. For January in Oregon, Staff relies completely on the  
19 temperature on the day before the peak load. Yet in Utah, for the same month of  
20 January, Staff relies completely on the temperature from two days before the peak  
21 load. Staff did not use the temperature on the day of the January coincident peak  
22 to develop their models in either Utah or Oregon. In fact, 75 percent of Staff's  
23 regressions failed to fully account for the temperature on the day of the load they

1 were seeking to forecast.

**Table 3-Summary of Weights Applied to Temperature Variables Used in Estimation of Regression Equations**

**Weights Applied to Temperature on Utah Coincident Peak Day, 1 Day Prior, and 2 Days Prior**

Utah	PPL Proposed			Staff Proposed		
	Peak Day	1 Day Prior	2 Days Prior	Peak Day	1 Day Prior	2 Days Prior
January	100.0%	66.0%	33.0%	0.0%	0.0%	100.0%
March	100.0%	66.0%	33.0%	0.0%	100.0%	0.0%
April	100.0%	66.0%	33.0%	100.0%	0.0%	0.0%
May	100.0%	66.0%	33.0%	100.0%	0.0%	0.0%
June	100.0%	66.0%	33.0%	67.0%	0.0%	33.0%
July	100.0%	66.0%	33.0%	100.0%	0.0%	0.0%
September	100.0%	66.0%	33.0%	62.9%	37.1%	0.0%
October	100.0%	66.0%	33.0%	16.6%	0.0%	83.4%
November	100.0%	66.0%	33.0%	79.8%	0.0%	20.2%

**Weights Applied to Temperature on Oregon Coincident Peak Day, 1 Day Prior, and 2 Days Prior**

Oregon	PPL Proposed			Staff Proposed		
	Peak Day	1 Day Prior	2 Days Prior	Peak Day	1 Day Prior	2 Days Prior
January	100.0%	75.0%	25.0%	0.0%	100.0%	0.0%
February	100.0%	75.0%	25.0%	67.1%	0.0%	32.9%
September	100.0%	75.0%	25.0%	98.6%	0.0%	1.4%

2 **Q. Has the Company analyzed the use of the correlation approach to determine**  
3 **the choice of the temperature variable?**

4 **A.** Yes. The Company looked at Staff’s January regressions for Oregon and Utah.  
5 In the Oregon regressions, the Company found that the correlation between peak  
6 loads and temperature is actually highest using the temperature that occurred 14  
7 days after the peak day. In Utah, the Company found 19 days with a higher  
8 correlation than the day chosen by Staff.

9 **Q. Is the Company proposing to use a day with a higher correlation as a**  
10 **measure of peak producing temperatures?**

11 **A.** No. The Company performed this correlation analysis simply to highlight that  
12 correlating temperature and load as Staff has done is not a useful method of  
13 specifying a load forecasting model.

1 **Q. Do you have further concerns about Staff’ s choice of temperature used in**  
2 **estimation of the regression equations?**

3 A. Yes. The Company used the average 20 years of temperatures that occurred on  
4 the day of coincident peak as the basis of the temperature it used to forecast  
5 coincident peak load. Staff has misinterpreted this mapping and picked a single  
6 year and a single temperature to create its coincident peak models. Because of  
7 this, Staff’ s model is highly dependent on that one temperature data point that  
8 could easily have come from a year with extreme weather conditions. In any  
9 event, Staff did not use normal weather either in the creation of its models or in  
10 using them to predict loads in the test period.

11 **Methodology Concerns**

12 **Q. What concerns do you have regarding Staff’ s choice of statistical modeling**  
13 **techniques?**

14 A. Staff’ s structure of regression equations is incorrectly specified, and varies by  
15 state and across months. Moreover, Staff’ s use of a two-step regression analysis  
16 technique (where first the coincident peak variable is regressed on a time trend  
17 variable, and second any unexplained variation from the first step is regressed on  
18 a temperature variable) gives the variable used in the first set of regressions (the  
19 time trend variable) a privileged position over the variables used in second set of  
20 regression equations creating the undesirable case of omitted variable bias leading  
21 to incorrect estimation of regression equation (Gary King, “ How Not to Lie with  
22 Statistics: Avoiding Common Mistakes in Quantitative Political Science” ). In the  
23 econometrics literature, it is recommended that all relevant explanatory variables

1 should be included in a full multiple regression equation, if they are believed that  
2 they are theoretically relevant to explain variations in the dependent variable (R.  
3 J. Wonnacott and T. H. Wonnacott, “ Econometrics” Second Edition, page 410).  
4 Moreover, Staff changed the structure of the equations used for regression  
5 analysis across months by applying inconsistent weights to temperatures as  
6 previously described. When using one chosen variable, Staff only used  
7 temperature for Oregon assuming that historic time trend will have no impact on  
8 the future peak forecast. This approach is illogical and would result in the same  
9 forecast both for 2010 and all years beyond 2010.

10 **Q. Does Staff’ s method include all relevant explanatory variables that you**  
11 **believe could explain the forecast of peak load?**

12 A. No. Staff’ s approach does not recognize that Oregon’ s coincident peak load is not  
13 only dependent on temperatures in the Company’ s Oregon service territory on the  
14 coincident peak day, but for a multi-jurisdictional utility such as the Company, is  
15 also affected by the temperatures in other jurisdictions on the day of system  
16 coincident peak. Staff also ignores other relevant variables that would help  
17 explain the coincident peak load. For example, monthly jurisdictional kilowatt-  
18 hour sales are an important determinant of peak load. To test this hypothesis, the  
19 Company expanded Staff’ s model to include monthly jurisdictional sales. The  
20 results of this test confirmed that sales are a statistically significant determinant of  
21 peak, and inclusion of sales improved the predictive power of temperature in  
22 Staff’ s model.

1 **Q. Did you test the accuracy of Staff’ s forecast models compared to the**  
2 **Company’ s model?**

3 A. Yes. The Company used Staff’ s regression equations to develop monthly  
4 coincident peak forecasts for 2008 and compared them to results using the  
5 Company’ s model. When Staff’ s forecasts for 2008 were compared with actual  
6 2008 monthly coincident peak data, the Mean Absolute Percent Error (MAPE)<sup>3</sup>  
7 was 10 percent for Oregon. The Company’ s forecast was more accurate with a  
8 MAPE of only 4 percent. For Utah, the MAPE associated with Staff’ s forecast  
9 was 5 percent compared to a MAPE value of only 2 percent with Company’ s  
10 forecast.

11 **Q. Do you have any other concerns with Staff’ s proposal?**

12 A. Yes. Staff’ s peak load forecast is not coordinated with the energy or hourly  
13 forecasts. Staff did not make any attempt to coordinate these three forecasts.  
14 Changing one hour per month without changing the hourly or energy forecasts  
15 consistently results in additional unintended consequences. Either the peak load  
16 needs to be restored to that forecast by the Company, or the hourly curve must be  
17 changed to better reflect the hourly load patterns experienced over recent history.  
18 Changing the hourly loads curve would also result in a change in the energy  
19 forecast.

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<sup>3</sup> Mean Absolute Percent Error (“ MAPE” ) is a common measure of forecast accuracy in a fitted time series value in statistics. A lower MAPE indicates a better forecast.



1 **Q. Please summarize your recommendation regarding Staff witness Clark’ s**  
2 **partial peak load forecast.**

3 A. For all of the reasons discussed in detail above, I recommend the Commission  
4 reject Staff witness Clark’ s proposal to change the SC allocation factor based on  
5 his proposed load forecasts changes.

6 **SECTION II – TAM-RELATED ISSUES**

7 **Changes in Methodology in the Calculation of Net Power Costs**

8 **Q. What is Staff’ s position on whether changes in methodologies used to**  
9 **calculate net power costs should be permitted in stand-alone TAM**  
10 **proceedings?**

11 A. Staff proposes two standards; one for the Company, and the other for Staff and  
12 Intervenors. Staff recommends that the Company be allowed to make limited  
13 changes in methodologies in stand-alone TAM proceedings, but only if the  
14 Company can “ sufficiently demonstrate” the changes are necessary due to an  
15 error that the Company has discovered in its modeling. Staff proposes this  
16 “ sufficient demonstration” be done prior to the Company making a stand-alone  
17 TAM filing and requires the “ consent” of Staff and Intervenors before being  
18 allowed in the filing. In Staff’ s proposal, this limited ability to make  
19 methodological changes in a stand-alone TAM is only applicable to the Company.  
20 Staff and Intervenors would have an unlimited ability to suggest changes or  
21 adjustments associated with existing modeling methodologies.

1 **Q. What is ICNU’ s position on whether changes in methodologies used to**  
2 **calculate net power costs should be permitted in stand-alone TAM**  
3 **proceedings?**

4 A. ICNU makes three recommendations on this issue. First, they recommend that  
5 parties be precluded from addressing issues that have already been decided by the  
6 Commission in a prior general rate or TAM case. Second, ICNU recommends that  
7 new “ types” of costs or revenues should not be allowed in a stand-alone TAM  
8 proceeding. Third, ICNU proposes that “ black box settlements” should not be the  
9 basis of a Commission-approved methodology. ICNU claims that 87 percent of  
10 the dollar value of their proposed adjustments to net power costs in UE 207  
11 concern the proper methodology to apply. They conclude that limiting  
12 methodological changes in future cases could well result in unfair, unjust and  
13 unreasonable rates.

14 **Q. How do you respond to these two proposals?**

15 A. Staff and ICNU have made substantially different proposals regarding the  
16 inclusion of methodological changes in a stand-alone TAM. Additionally, each of  
17 Staff and ICNU’ s proposals are materially different than the Company’ s proposal.  
18 These three proposals range from not allowing methodological changes on the  
19 one hand, to allowing an unlimited number of methodological changes. After  
20 reviewing the proposals from Staff and ICNU presented in their reply testimony, I  
21 have concluded that the Company is agreeable to any outcome on this issue as  
22 long as it is symmetrical and is based on sound regulatory policy that promotes a  
23 fair and balanced outcome.

1 **Q. Are the proposals from Staff and ICNU symmetrical?**

2 A. The proposal from ICNU is symmetrical, but Staff's proposal is not. Staff's  
3 proposal is inconsistent with a balanced approach to ratemaking. For example,  
4 Staff's proposal requires the Company to attain the "consent" of Staff and  
5 intervenors in advance of making its TAM filing if it wants to include  
6 methodological changes in the filing. There are no reciprocal requirements placed  
7 on Staff or intervenors to seek the consent of the Company for proposing  
8 methodological changes under Staff's proposal. Indeed, Staff provides no  
9 rationale for applying a different standard to the Company than to other parties.

10 **Q. Please identify the benefits of allowing methodological changes in a stand-**  
11 **alone TAM.**

12 A. Allowing methodological changes in stand-alone TAM filings would not require  
13 parties to spend time arguing over what constitutes a methodological change. As  
14 ICNU has pointed out, many of the adjustments in the current TAM are  
15 considered by ICNU to be methodological changes. The forecast of net power  
16 costs would likely be more accurate if methodological changes are allowed  
17 simply by the nature of being more inclusive.

18 **Q. What are the benefits of not allowing methodological changes in a stand-**  
19 **alone TAM?**

20 A. Not allowing methodological changes in the TAM has the potential to streamline  
21 the stand-alone TAM proceedings if parties could agree what constitutes a  
22 methodological change.

1 **Including Variable Costs of New Generation Resources**

2 **Q. What does Staff propose regarding the inclusion of the variable costs of new**  
3 **generation resources in a stand-alone TAM?**

4 A. Staff recommends including new facilities that are used and useful as of January 1  
5 of a test year into net power costs. They incorrectly indicate that this is consistent  
6 with the treatment agreed to by the Company in its sur-surrebuttal testimony in  
7 UE 170, and further observe that the Company can request a general rate case to  
8 recover the fixed costs of resources at their discretion.

9 **Q. What does ICNU recommend on this issue?**

10 A. ICNU recommends that the Company be required to reflect the variable costs of  
11 the new resource in a stand-alone TAM so long as the Company has had the  
12 opportunity to file a GRC but chose not to do so. ICNU indicates that the  
13 Company raises a seemingly valid concern; however they disagree with the  
14 solution. ICNU proposes to modify and limit the Company' s proposal to exclude  
15 new resources from the TAM unless the Company acquired or completed the  
16 resource two years prior to the TAM filing date. They specifically propose to  
17 shorten the two years to six months, and recommend the exclusion only apply to a  
18 new resource acquired outside of any IRP or RFP process, such as Chehalis which  
19 is referred to by ICNU as “ an unpredictable event accompanying a special  
20 opportunity.”

21 **Q. How does the Company respond to these proposals?**

22 A. The Company believes ICNU' s proposal reflects a reasonable balance and  
23 supports their recommendation. The Company believes, though, that the

1 prudence of the resource would need to be established by the Commission prior to  
2 the inclusion of the variable costs in rates.

3 **Treatment of Line Losses in Calculating Schedules 294 and 295**

4 **Q. Has Mr. Higgins proposes adjustments to line losses that the Company**  
5 **applied in the calculations of Schedules 294 and 295?**

6 A. Yes. Mr. Higgins states that the line loss factor that the Company uses is  
7 “unusually low for retail delivery” and may have been applied incorrectly.

8 **Q. Do you agree with Mr. Higgins statement?**

9 A. No. Mr. Higgins correctly states that “it is necessary to make a line loss  
10 adjustment in order to subtract one price from the other on an ‘apples-to-apples’  
11 basis.” However, Mr. Higgins incorrectly determined the point where the line  
12 loss adjustments should be made.

13 **Q. Please explain.**

14 A. When a customer becomes a direct access customer, they still remain a  
15 distribution customer of the Company and the Company still incurs distribution  
16 line losses in order to serve the direct access customer. The only line losses that  
17 the Company no longer incurs are the losses at the transmission level. The  
18 Company still incurs losses on its distribution system to deliver the energy to that  
19 customer from the transmission substation. As a result, only the transmission  
20 level line losses should be removed from the cost-of-service price.

21 **Q. What is the 4.48 percent to which Mr. Higgins refers?**

22 A. The 4.48 percent is the Company’s line loss factor at the transmission level that is  
23 currently in the Company’s Open Access Transmission Tariff.

1 **Q. What is your recommendation on this adjustment?**

2 A. The Commission should reject Mr. Higgins' s recommendation because it  
3 incorrectly determines the impact of line losses on the Company' s system when  
4 customers choose direct access.

5 **SECTION III – SALES OF RECS**

6 **Q. Staff witness Dougherty proposes that the Company be required to place the**  
7 **gain on the sale of RECs in the property sales balancing account for refund to**  
8 **customers in the future. Do you agree with this recommendation?**

9 A. No. PacifiCorp is not planning to sell any Oregon-allocated eligible RECs in the  
10 future due to its need to bank the RECs for future compliance with the Oregon  
11 RPS. As such, Staff' s recommendation with respect to RPS-eligible RECs is  
12 unnecessary.

13 **Q. Does this conclude your reply testimony?**

14 A. Yes.



Docket No. UE-210  
Exhibit PPL/706  
Witness: R. Bryce Dalley

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Reply Testimony of R. Bryce Dalley**

**August 2009**



1 **Q. Are you the same R. Bryce Dalley who previously provided testimony in this**  
2 **docket?**

3 A. Yes, I am.

4 **Purpose and Summary**

5 **Q. What is the purpose of your reply testimony?**

6 A. The purpose of my testimony is to respond to adjustments proposed by the witnesses  
7 for the staff of the Public Utility Commission of Oregon (“ Staff” ), Citizens’ Utility  
8 Board of Oregon (“ CUB” ) and Industrial Customers of Northwest Utilities (“ ICNU” ).

9 **Q. Please summarize your testimony.**

10 A. My testimony explains and supports the Company’ s revised overall base revenue  
11 increase of \$82.7 million, excluding net power costs (“ NPC” ) and new tariff riders.  
12 This is a reduction from the \$92.1 million request included in the Company’ s initial  
13 filing. My testimony also provides:

- 14 • A detailed calculation of the \$82.7 million requested base revenue increase,  
15 including a summary of the differences between the \$92.1 million initial request  
16 and the current amount. The revised request includes the impact of adjustments  
17 proposed by other parties that the Company has accepted; and
- 18 • The Company’ s response to certain revenue requirement adjustments proposed  
19 by intervening parties in this case which the Company contests.

20 **Required Revenue Increase**

21 **Q. What price increase is required to achieve the requested return on equity in this**  
22 **case?**

23 A. As shown on Page 1 of Exhibit PPL/707, an overall base price increase of \$82.7

1 million, excluding NPC and new tariff riders, is required to produce the 11 percent  
2 return on equity requested in this rate case proceeding. As addressed in my direct  
3 testimony, NPC-related items are recovered separately through the Company' s  
4 Transition Adjustment Mechanism (“ TAM” ) filing.

5 **Q. Please describe the calculation of the revised overall revenue increase.**

6 A. The Company' s revised revenue increase of \$82.7 million was calculated using the  
7 same Revised Protocol allocation methodology included in the Company' s original  
8 filing and incorporates certain adjustments proposed by other parties. In support of  
9 the revised calculation, Exhibit PPL/708 shows the revised revenue requirement  
10 requested by the Company. This Exhibit updates Tabs 1, 2, and 11 of my original  
11 Exhibit PPL/702 and adds a new section, Tab 12, containing backup pages for each  
12 new adjustment made to the Company' s filing. All adjustments included in Tab 12  
13 are incremental to the revenue requirement in the Company' s original filing made  
14 April 2, 2009.

15 **Revenue Requirement Adjustments**

16 **Q. Is the Company incorporating any adjustments proposed by the intervening**  
17 **parties into its revenue requirement calculation?**

18 A. Yes. The Company incorporated the following new adjustments, including some  
19 proposed by intervening parties, into its Oregon revenue requirement calculation.  
20 Each is described further in my testimony.

<b>Original Price Change Request</b>	<b>\$ 92.1 million</b>
<b>Reply Adjustments</b>	
Allocation Factors	(0.1)
Cost of Capital and Capital Structure	(1.0)
Rate Base	(0.1)
Insurance Low Claims Bonus	(0.1)
Workers Compensation Expense	(0.4)
FAS 112 (Post-Employment Benefits)	(0.2)
401(k) Expense	(1.9)
Challenge Grants	(0.1)
Transition Plan - Oregon Regulatory Asset	(3.6)
MEHC CIC Severance Regulatory Asset	(2.8)
Grid West Regulatory Asset	(0.4)
Wind Interconnection Rate Base	(0.6)
Other Wind Plant Additions	(0.3)
August 2009 - NPC Update/ECD	2.3
Subtotal	(9.3)
<b>Reply Price Change Request</b>	<b>\$ 82.7 million</b>

1 **Allocation Factors**

2 **Q. Please describe the Company’ s adjustment to its originally-proposed allocation**  
3 **factors.**

4 A. The Company has updated allocation factors to reflect two changes. First, allocation  
5 factors that rely on the NPC study developed using the Generation and Regulation  
6 Initiative Decision (“ GRID” ) model have been updated to reflect changes in NPC as  
7 filed in the Company’ s August 2009 TAM update. Second, allocation factors  
8 calculated based on plant-in-service balances have been updated to reflect plant levels  
9 included in the Company’ s revised revenue requirement. Both of these changes are  
10 consistent with the Commission-approved Revised Protocol allocation methodology.

11 **Q. Have you reflected these changes to allocation factors in your revised revenue**  
12 **requirement?**

13 A. Yes. I have included a proposed adjustment reflecting these changes as Adjustment  
14 12.1 of Exhibit PPL/708.

1 **Cost of Capital and Capital Structure**

2 **Q. Please explain the changes to cost of capital and capital structure.**

3 A. Cost of capital and capital structure have been updated to the amounts shown in the  
4 table below. The reply testimony of Company witness Mr. Bruce N. Williams  
5 addresses the changes in capital structure and cost of debt. The Company has not  
6 made any changes to the cost of common equity as addressed in the reply testimony  
7 of Company witness Dr. Samuel C. Hadaway.

	<b>Capital Structure</b>	<b>Embedded Cost</b>	<b>Weighted Cost</b>
Long-Term Debt	48.7%	5.96%	2.90%
Preferred Stock	0.3%	5.41%	0.02%
Common Stock	51.0%	11.00%	5.61%
	<u>100.000%</u>		<u>8.53%</u>

8 **Q. Have you reflected these changes to cost of capital and capital structure in your**  
9 **revised revenue requirement?**

10 A. Yes. I have included a proposed adjustment reflecting these changes as Adjustment  
11 12.2 of Exhibit PPL/708.

12 **Rate Base**

13 **Q. Please describe Staff witness Ms. Deborah Garcia' s proposed adjustment to the**  
14 **Company' s rate base.**

15 A. Ms. Garcia proposes to disallow approximately \$269 million of Company investment,  
16 or \$116.6 million on an Oregon-allocated basis. Ms. Garcia' s adjustment is broken  
17 down into three separate categories, one of which removes approximately \$400,000  
18 of Oregon-allocated rate base for two distinct projects that should not be included in  
19 rate base. The Company accepts this aspect of Ms. Garcia' s adjustment, but contests  
20 the balance of this adjustment as discerned later in my testimony.

1 **Q. Has an adjustment to rate base been reflected in your revised revenue**  
2 **requirement?**

3 A. Yes. Adjustment 12.3 of Exhibit PPL/708 reflects the Company' s acceptance of Ms.  
4 Garcia' s approximately \$400,000 of proposed adjustments to Oregon-allocated rate  
5 base balances.

6 **Q. Does Adjustment 12.3 of Exhibit PPL/708 reflect any additional components not**  
7 **proposed by Ms. Garcia?**

8 A. Yes. Adjustment 12.3 includes two other aspects not included in Ms. Garcia' s  
9 adjustment. First, this adjustment includes an update to reflect the final amount of  
10 liquidated damages related to the Goodnoe Hills wind resource. At the time of the  
11 Company' s filing, the final amount of liquidated damages was unknown. In the  
12 Company' s response to OPUC Data Request 310, the Company provided the final  
13 amount of liquidated damages and agreed to make an adjustment in its reply  
14 testimony reflecting this change. This adjustment reduces Oregon-allocated rate base  
15 by approximately \$538,000. Second, this adjustment reflects the impact of  
16 accumulated depreciation and depreciation expense associated with the rate base  
17 changes described above.

18 **Insurance Low Claims Bonus**

19 **Q. Please describe Staff witness Mr. Dustin Ball' s proposed adjustment related to**  
20 **insurance low claims bonuses.**

21 A. Mr. Ball proposes a reduction of \$122,918, on an Oregon-allocated basis, to the  
22 Company' s insurance expense for a potential low claims bonus in the test period  
23 ending December 31, 2010 (" Test Period" ). In support of his adjustment, Mr. Ball

1 cites low claims bonuses that were received by the Company in recent policy years.

2 His proposal includes 50 percent of the Company' s recent low claims bonus as a

3 reduction to insurance expenses in the Test Period.

4 **Q. Do you accept Mr. Ball' s proposed adjustment to insurance expense for low**  
5 **claims bonuses?**

6 A. Yes. While it is not certain that the Company will receive a low claims bonus in the

7 Test Period, for purposes of this proceeding, the Company accepts Mr. Ball' s

8 adjustment reflecting a low claims bonus for the Test Period.

9 **Q. Has an adjustment to insurance expense for low claims bonuses been reflected in**  
10 **your revised revenue requirement?**

11 A. Yes. Adjustment 12.4 of Exhibit PPL/708 reflects the Company' s acceptance of Mr.

12 Ball' s proposed adjustment.

13 **Worker' s Compensation Insurance Expense**

14 **Q. Please describe Staff witness Mr. Ball' s proposed adjustment related to worker' s**  
15 **compensation insurance expense.**

16 A. Mr. Ball proposes that the Company' s worker' s compensation insurance costs be

17 reduced by \$512,931 on an Oregon-allocated basis. Mr. Ball splits this adjustment

18 amount between operations and maintenance (“ O&M” ) expense and rate base.

19 **Q. Do you address Mr. Ball' s proposed adjustment to worker' s compensation**  
20 **insurance in your reply testimony?**

21 A. No. Company witness Mr. Erich D. Wilson addresses Mr. Ball' s proposed

22 adjustment in his reply testimony.

1 **Q. Has an adjustment to worker' s compensation insurance expense been reflected**  
2 **in your revised revenue requirement?**

3 A. As detailed in Mr. Wilson' s reply testimony, the Company accepts Mr. Ball' s  
4 adjustment to worker' s compensation insurance O&M expense. Adjustment 12.5 of  
5 Exhibit PPL/708 reflects the Company' s acceptance of Mr. Ball' s proposed  
6 adjustment.

7 **FAS 112 (Post-Employment Benefits)**

8 **Q. Please describe Staff witness Mr. Ball' s proposed adjustment related to FAS 112**  
9 **(Post-Employment Benefits) expense.**

10 A. Mr. Ball proposes an adjustment to FAS 112 (Post-Employment Benefits) of  
11 \$316,596 on an Oregon-allocated basis, split between O&M expense and rate base.  
12 The basis of Mr. Ball' s adjustment is to escalate actual 2008 expenses to develop  
13 projected Test Period levels instead of escalating budgeted 2008 expenses as filed in  
14 the Company' s direct position.

15 **Q. Do you accept Mr. Ball' s proposed adjustment?**

16 A. Yes. The Company accepts the level of FAS 112 (Post-Employment Benefits)  
17 expense proposed by Mr. Ball as a reasonable projection for the Test Period.

18 **Q. Has an adjustment to FAS 112 (Post-Employment Benefits) been reflected in**  
19 **your revised revenue requirement?**

20 A. Yes. Adjustment 12.6 of Exhibit PPL/708 reflects the Company' s acceptance of Mr.  
21 Ball' s proposed adjustment to FAS 112 (Post Employment Benefits) O&M expense.

1 **401(k) Expense**

2 **Q. Please explain Staff witness Mr. Ball' s adjustment to the Company' s 401(k)**  
3 **expense.**

4 A. Mr. Ball proposes an adjustment of \$2.6 million to the Company' s Test Period 401(k)  
5 expense on an Oregon-allocated basis, split between rate base and O&M expenses.

6 **Q. Do you address Mr. Ball' s proposed adjustment to 401(k) expenses in your reply**  
7 **testimony?**

8 A. No. Company witness Mr. Wilson addresses Mr. Ball' s proposed adjustment to  
9 401(k) expenses in his reply testimony.

10 **Q. Has an adjustment to 401(k) expense been reflected in your revised revenue**  
11 **requirement?**

12 A. Yes. As detailed in Mr. Wilson' s reply testimony, the Company accepts Mr. Ball' s  
13 adjustment to 401(k) O&M expenses. Adjustment 12.7 of Exhibit PPL/708 reflects  
14 the Company' s acceptance of Mr. Ball' s proposed adjustment.

15 **Challenge Grants**

16 **Q. Please describe Staff witness Mr. Ball' s proposed adjustments to challenge grant**  
17 **expenses.**

18 A. Mr. Ball proposes to disallow challenge grant expenses from regulated results,  
19 reducing Oregon' s revenue requirement by approximately \$58,000. Mr. Ball claims  
20 that these costs relate to civic activities, are discretionary, and require customers to  
21 support causes in which they may not believe.

22 **Q. Do you accept Mr. Ball' s proposed adjustment?**

23 A. Yes. The Company accepts Mr. Ball' s adjustment, as I have been informed that it



1 complies with prior Oregon Commission practice.

2 **Q. Has an adjustment been reflected in your revised revenue requirement to reflect**  
3 **this treatment?**

4 A. Yes. Adjustment 12.8 of Exhibit PPL/708 reflects the removal of the challenge grant  
5 expenses from the Test Period.

6 **Regulatory Asset Amortization**

7 **Q. Please describe Staff witness Mr. Ball' s adjustment related to regulatory asset**  
8 **amortizations.**

9 A. Mr. Ball proposes adjustments to two regulatory assets included in the base historical  
10 period used in this proceeding, the 12 months ended June 2008 (“ Base Period” ).

11 First, he proposes removing the amortization expense related to the “ 98 Early  
12 Retirement Oregon” regulatory asset since this asset was fully amortized by  
13 December 2007. Second, he proposes to move the “ Transition Plan-Oregon”  
14 regulatory asset from base rates to a separate tariff rider to ensure that the  
15 amortization of this asset terminates once it is fully amortized.

16 **Q. Do you accept Mr. Ball' s adjustment to the 98 Early Retirement Oregon**  
17 **regulatory asset?**

18 A. In principle, yes. I agree with Mr. Ball' s recommendation that the amortization  
19 related to this regulatory asset should not be included in the Test Period because it  
20 was fully amortized in December 2007. However, the Company' s revenue  
21 requirement in this proceeding does not include any amortization expense for this  
22 regulatory asset during the Test Period.

1 **Q. Did the Company make an adjustment to remove the amortization expense**  
2 **related to this regulatory asset in its filed revenue requirement?**

3 A. Yes. The Base Period used in this case included approximately \$1.8 million of  
4 amortization expense related to the 98 Early Retirement regulatory asset. As  
5 explained in my direct testimony, the Company developed O&M expense levels for  
6 the Test Period by escalating the Base Period expense for inflation using the Global  
7 Insight inflationary indices. This escalation process results in amortization expense  
8 for this regulatory asset of approximately \$2.0 million. However, the Company made  
9 a final O&M adjustment in its original filing to true-up the overall level of O&M  
10 expenses included in the Test Period to the level included in the Company' s 2010  
11 budget. By following this process, the amortization expense related to the 98 Early  
12 Retirement regulatory asset was removed from the Test Period, since the Company' s  
13 2010 budget does not include any amortization expense for this item. This  
14 adjustment was included on page 4.20 of Exhibit PPL/702.

15 **Q. Would the Commission' s acceptance of Mr. Ball' s proposed adjustment remove**  
16 **the amortization expense associated with this asset twice?**

17 A. Yes. Any additional adjustment related to the amortization expense of this asset is  
18 unnecessary since it has already been removed from the Company' s revenue  
19 requirement.

20 **Q. Do you accept Mr. Ball' s adjustment to the “ Transition Plan-Oregon”**  
21 **regulatory asset?**

22 A. Again, in principle, yes. I accept Mr. Ball' s recommendation to move the balance  
23 and associated amortization of this asset out of base rates to be recovered through a

1 separate tariff rider. However, I do not agree with the amount of amortization Mr.  
2 Ball asserts is included in the Test Period.

3 **Q. How has Mr. Ball determined the amount of amortization included in the Test**  
4 **Period?**

5 A. Mr. Ball calculates the amount of amortization included in the Test Period by taking  
6 the amortization expense included in the Base Period of approximately \$3.9 million,  
7 multiplied by the Global Insight inflationary index of 7.1 percent, resulting in a total  
8 escalated amount of approximately \$4.2 million.

9 **Q. Is this consistent with how the O&M expense was developed in the Company' s**  
10 **original filing?**

11 A. No. As explained above, the Company developed the O&M expenses in this case by  
12 escalating the Base Year for inflation using Global Insight inflationary indices. This  
13 treatment is consistent with Mr. Ball' s proposal. However, the Company made a final  
14 O&M adjustment, page 4.20 of Exhibit PPL/702, in its original filing to true-up the  
15 overall level of O&M expenses included in the Test Period to the level included in the  
16 Company' s 2010 budget. As a result of this process, the amortization expense related  
17 to the Transition Plan-Oregon regulatory asset in the Test Period equals the amount of  
18 amortization expense included in the Company' s 2010 budget.

19 **Q. What is the level of amortization expense included in the Company' s 2010**  
20 **budget and the revenue requirement for the Test Period?**

21 A. The Company' s 2010 budget and the revenue requirement for the Test Period include  
22 approximately \$2.3 million of amortization expense related to this asset. This amount  
23 reflects seven months of amortization expense, January 2010 through July 2010. The

1 Company' s 2010 budget does not reflect any amortization expense related to this  
2 asset from August 2010 through December 2010, since the asset is scheduled to be  
3 fully amortized at the end of July 2010.

4 **Q. Has an adjustment been reflected in your revised revenue requirement related to**  
5 **the Transition Plan-Oregon regulatory asset?**

6 A. Yes. Adjustment 12.9 of Exhibit PPL/708 reflects the removal of the amortization  
7 expense, balance, and associated accumulated deferred tax balance related to this  
8 asset as included in the Company' s original filing. The Company accepts Mr. Ball' s  
9 proposal to establish a separate tariff rider to recover the remaining balance  
10 associated with this asset beginning in February 2010 of \$1,945,215 on an Oregon-  
11 allocated basis. The rate associated with this tariff rider is discussed in the reply  
12 testimony of Company witness Mr. William R. Griffith.

13 **MEHC Change-in-Control (“ CIC” ) Severance Regulatory Asset**

14 **Q. Please describe Staff witness Mr. Ball' s proposed adjustment to the**  
15 **MidAmerican Energy Holdings Company (“ MEHC” ) CIC severance regulatory**  
16 **asset.**

17 A. Mr. Ball does not take issue with the Company' s calculation of the MEHC CIC  
18 Severance regulatory asset as filed on page 4.3 of Exhibit PPL/702. However, he  
19 proposes to move the Commission-approved regulatory asset out of base rates to a  
20 separate tariff rider.

21 **Q. Do you accept Mr. Ball' s proposal with respect to this regulatory asset?**

22 A. Yes.

1 **Q. Has an adjustment been made to the revised revenue requirement to reflect this**  
2 **treatment?**

3 A. Yes. Adjustment 12.10 of Exhibit PPL/708 reflects the removal of the amortization  
4 expense, balance, and associated tax entries associated with the MEHC CIC  
5 severance regulatory asset as included in the Test Period. The Company accepts Mr.  
6 Ball' s proposal to establish a separate tariff rider to recover the remaining balance  
7 associated with this asset beginning in February 2010 of \$4,605,029 on an Oregon-  
8 allocated basis. The rate associated with this tariff rider is discussed in the reply  
9 testimony of Company witness Mr. Griffith.

10 **Grid West Regulatory Asset**

11 **Q. Please describe Staff witness Mr. Ball' s proposed adjustment to the Grid West**  
12 **regulatory asset.**

13 A. Mr. Ball does not take issue with the Company' s calculation of the Grid West  
14 regulatory asset as filed on page 4.10 of Exhibit PPL/702. However, he again  
15 proposes to move the Commission-approved regulatory asset out of base rates to a  
16 separate tariff rider.

17 **Q. Do you accept Mr. Ball' s proposal with respect to this regulatory asset?**

18 A. Yes.

19 **Q. Has an adjustment been made to the revised revenue requirement to reflect this**  
20 **treatment?**

21 A. Yes. Adjustment 12.11 of Exhibit PPL/708 reflects the removal of the amortization  
22 expense, balance, and associated tax entries associated with the Grid West asset as  
23 included in the Test Period. The Company accepts Mr. Ball' s proposal to establish a

1 separate tariff rider to recover the remaining balance associated with this asset  
2 beginning in February 2010 of \$1,041,140 on an Oregon-allocated basis. The rate  
3 associated with this tariff rider is discussed in the reply testimony of Company  
4 witness Mr. Griffith.

5 **Wind Interconnection Rate Base**

6 **Q. Please describe Staff witness Mr. Ed Durrenberger' s proposed adjustment**  
7 **related to the interconnection costs associated with Seven Mile Hill II and**  
8 **Glenrock III.**

9 A. Mr. Durrenberger removes approximately \$4.5 million of Oregon-allocated  
10 interconnection rate base related to Seven Mile Hill and Glenrock III wind resources  
11 because of an alleged double count. Mr. Durrenberger asserts that the plant additions  
12 to rate base for these two facilities already include expenses for the interconnections  
13 and the Company' s proposal would result in a double count of these expenses.

14 **Q. Do you accept Mr. Durrenberger' s proposed adjustment?**

15 A. Yes.

16 **Q. Has an adjustment been made to the revised revenue requirement related to the**  
17 **wind interconnection balances?**

18 A. Yes. Adjustment 12.12 of Exhibit PPL/708 reflects the Company' s acceptance of Mr.  
19 Durrenberger' s proposed adjustment to wind interconnection capital additions. This  
20 adjustment also removes the associated depreciation expense and accumulated  
21 reserve associated with these capital additions.

1 **Other Wind Plant Additions**

2 **Q. Please describe Staff witness Mr. Durrenberger’ s proposed adjustment related**  
3 **to the Company’ s new wind facilities.**

4 A. Mr. Durrenberger removes approximately \$2 million of Oregon-allocated rate base  
5 associated with certain cost components included as capital additions for the  
6 Company’ s High Plains, Seven Mile Hill II, and Glenrock III wind resources. He  
7 asserts that cost categories “ Capital Surcharge” and “ Contingencies” are not  
8 appropriate additions to rate base.

9 **Q. Do you accept Mr. Durrenberger’ s proposed adjustment related to forecast**  
10 **contingency capital amounts?**

11 A. Yes. For purposes of this proceeding and these specific resources, the Company  
12 accepts Mr. Durrenberger’ s proposed adjustment related to forecast contingencies for  
13 High Plains, Seven Mile Hill II, and Glenrock III wind resources.

14 **Q. Has an adjustment been made to the revised revenue requirement related to**  
15 **these contingency capital amounts?**

16 A. Yes. Adjustment 12.13 of Exhibit PPL/708 reflects the Company’ s acceptance of Mr.  
17 Durrenberger’ s proposed adjustment related to contingencies. This adjustment also  
18 removes the depreciation expense and accumulated reserve associated with these  
19 capital additions.

20 **Q. Do you accept Mr. Durrenberger’ s proposed adjustment related to capital**  
21 **surcharges?**

22 A. No. Capital surcharges or overhead construction costs are appropriate charges to be  
23 capitalized as part of rate base. The Code of Federal Regulations (“ C.F.R.” ) clearly

1 provides for the inclusion of capital surcharge and other similar overhead  
2 construction costs in capital projects. The relevant regulation, 18 C.F.R. § 367.52,  
3 states:

4 4. Overhead Construction Costs.

5 A. All overhead construction costs, such as engineering, supervision, general  
6 office salaries and expenses, construction engineering and supervision by  
7 others than the accounting utility, law expenses, insurance, injuries and  
8 damages, relief and pensions, taxes and interest, shall be charged to particular  
9 jobs or units on the basis of the amounts of such overheads reasonably  
10 applicable thereto, to the end that each job or unit shall bear its equitable  
11 proportion of such costs and that the entire cost of the unit, both direct and  
12 overhead, shall be deducted from the plant accounts at the time the property is  
13 retired.

14 The Company' s inclusion of capital surcharge amounts for its wind facilities is in  
15 compliance with Federal Energy Regulatory Commission ( " FERC" ) regulations. As  
16 such, the Commission should reject Mr. Durrenberger' s proposed adjustment  
17 removing these construction overhead amounts from rate base.

18 **August 2009 NPC Update/Embedded Cost Differential ( " ECD" )**

19 **Q. Does your revised revenue requirement model reflect updates to NPC as filed in**  
20 **the Company' s August 2009 TAM update?**

21 A. Yes. Adjustments 12.14 and 12.15 of Exhibit PPL/708 reflect updated NPC as  
22 reported in the Company' s August 2009 TAM update. As discussed previously, the  
23 Company is seeking to recover its NPC through the TAM (Docket UE 207) and not in  
24 this proceeding. However, an update of NPC is required to properly calculate the  
25 ECD, which is included as part of the non-NPC revenue requirement. The update to  
26 the ECD has been calculated in accordance with the Commission-approved allocation  
27 methodology.



1 **Q. Is the Company making any other adjustments to revenue requirement at this**  
2 **time?**

3 A. No.

4 **Contested Adjustments**

5 **Q. Do you address any specific adjustments proposed by the intervening parties to**  
6 **which the Company is opposed?**

7 A. Yes. I address several adjustments proposed by intervening parties to which the  
8 Company is opposed.

9 **Rate Base**

10 **Q. Please describe Staff witness Ms. Deborah Garcia' s proposed rate base**  
11 **adjustment.**

12 A. As discussed previously in my testimony, Ms. Garcia' s proposed adjustment  
13 disallows approximately \$269 million of Company investment, or \$116.6 million on  
14 an Oregon-allocated basis. This adjustment is comprised of three separate categories.  
15 First, she removes \$36.4 million of Oregon-allocated rate base balances for capital  
16 projects scheduled to be placed into service subsequent to the rate effective date,  
17 February 2, 2010. Second, she removes approximately \$400,000 of Oregon-allocated  
18 rate base for two distinct projects that should not be included in rate base. Third, she  
19 removes \$79.8 million of Oregon-allocated rate base balances, representing 50  
20 percent of the balances associated with projects that have designated in-service dates  
21 as " monthly" or " various."

1 **Q. Please describe the aspects of Ms. Garcia’ s proposed rate base adjustment to**  
2 **which the Company is opposed.**

3 A. The Company does not agree with Ms. Garcia’ s first and third categories of  
4 adjustments. Specifically, the Company opposes her proposal to remove all capital  
5 projects with in-service dates subsequent to the rate effective date and 50 percent of  
6 all capital amounts associated with projects that are placed into service in multiple  
7 months. In addition to my testimony on the Company’ s objections to these proposals,  
8 Company witness Mr. Richard A. Vail explains the invalidity of Ms. Garcia’ s  
9 adjustment as it relates to distribution plant.

10 **Q. Why is the Company opposed to the first and third categories of Ms. Garcia’ s**  
11 **proposed adjustments?**

12 A. Ms. Garcia’ s proposed adjustments are inappropriate for three fundamental reasons.  
13 First, her proposals are inconsistent with Commission precedent. Second, her  
14 proposals ignore the matching principle regarding the costs, revenues and balances  
15 included in the Test Period. Third, the overall level of Oregon net plant in service  
16 proposed by Staff produces a level of rate base in the Test Period that is less than the  
17 level of rate base actually experienced by the Company in the 12-months ended June  
18 2009 - a patently unreasonable result.

19 **Q. How is Ms. Garcia’ s proposal contrary to Commission precedent?**

20 A. With respect to Ms. Garcia’ s first category of adjustments - capital projects with in-  
21 service dates subsequent to the rate effective date - Ms. Garcia’ s proposal applies an  
22 improper “ known and measurable” standard that the Commission has rejected.

1 **Q. What “ known and measurable” standard does Ms. Garcia apply?**

2 A. Ms. Garcia argues that proposed rate base additions must be excluded if there is “ no  
3 guarantee” that the project will be completed by the forecasted date. Ms. Garcia  
4 argues that it is “ a simple reality that no entity can foresee unexpected changes in  
5 costs, delays, or whether there would be a logical reason to scrap a proposed project.”  
6 Essentially, Ms. Garcia is defining “ known and measurable” to mean that the  
7 Company must be absolutely certain the project will be in service on the forecasted  
8 date to be included in rates.

9 **Q. Does the Commission use the “ known and measurable” standard advocated by  
10 Ms. Garcia?**

11 A. No. In fact, as I understand Commission policy, the standard Ms. Garcia proposes  
12 was rejected by the Commission in Order No. 00-191. In that order, the Commission  
13 stated that revenues and expenses are included in the Test Period if they are  
14 “ reasonably certain.” Ms. Garcia’ s interpretation of “ known and measurable” is more  
15 restrictive than the Commission’ s “ reasonably certain” standard and should be  
16 rejected. PacifiCorp asked Staff to provide citations to past orders where the  
17 Commission has used the “ known and measurable” policy advocated by Ms. Garcia  
18 in Data Request 3.16. Staff could not cite to any orders where the Commission did  
19 so. See Exhibit PPL/709.

20 **Q. Is the Company reasonably certain that the rate base items that the Company  
21 included in the Test Period will be in service on the forecasted date?**

22 A. Yes. The Company plans plant additions not only for regulatory purposes, but for its  
23 own facility management and engineering purposes. Based on the Company’ s best

1 judgment and extensive review of plant additions, the Company’ s forecasted in-  
2 service dates included in its filing are reasonably certain. In fact, the Company’ s  
3 revenue requirement is calculated based on a 13-month average rate base designed to  
4 ensure that customers’ rates only reflect the portion of the investment that is used and  
5 useful in the Test Period. In addition, because in this case the Test Period begins on  
6 January 1, 2010, but the rate effective period starts a month later, the Company’ s  
7 recovery on its rate base in the Test Period lags by a month. This lag provides  
8 additional reassurance that the Company will not be prematurely recovering on new  
9 projects included in rate base.

10 **Q. Are you concerned about the policy implications of Ms. Garcia’ s interpretation**  
11 **of “ known and measurable” ?**

12 A. Yes. Application of Ms. Garcia’ s standard requiring a “ guarantee” before including  
13 projects in rate base would undermine the Commission’ s ability to use a forecast Test  
14 Period. Ms. Garcia is correct that no entity can foresee all changes in the Test Period,  
15 but requiring an entity to foresee all changes that will occur in the Test Period is  
16 incompatible with a forecast test period. This incompatibility is why in Order No. 00-  
17 191 the Commission rejected a restrictive “ known and measurable” standard in favor  
18 of the “ reasonably certain” standard.

19 **Q. How else are Ms. Garcia’ s proposed adjustments contrary to Commission**  
20 **precedent?**

21 A. Both the first category of adjustments - removal of all capital projects with in-service  
22 dates subsequent to the rate effective date, and the third category of adjustments -  
23 removal of 50 percent of all capital amounts associated with projects that are placed

1 into service in multiple months are contrary to the Commission’ s interpretation of the  
2 “ used and useful” standard.

3 **Q. What do you mean by the Commission’ s interpretation of the “ used and useful”**  
4 **standard?**

5 A. It is my understanding that the Commission has found that the “ used and useful”  
6 requirement in ORS 757.355 was not intended to apply to routine, smaller projects  
7 relating to operating plant. See Order No. 02-227. The Commission’ s recent order  
8 reviewing the validity of Order No. 02-227, Order No. 08-487, did not change this  
9 policy.

10 **Q. Has the Company reflected this policy in its filing?**

11 A. Yes. As discussed in my direct testimony, the Company did not include in rate base  
12 projects greater than \$20 million on a total-company basis that will be placed into  
13 service during 2010. The projects under \$20 million included in the Company’ s  
14 filing that will be placed into service in the Test Period primarily relate to existing  
15 infrastructure or operating plant that is already in service. Additionally, the use of a  
16 13-month average rate base approach ensures that projects are not reflected in rate  
17 base until the in-service date. Therefore, the projects classified in Ms. Garcia’ s first  
18 and third categories of adjustments are appropriately included in rate base, consistent  
19 with the Commission’ s interpretation of ORS 757.355.

20 **Q. Please describe the matching principle and how it has been applied in the**  
21 **Company’ s original filing.**

22 A. In general, the matching principle states that the costs incurred during a period should  
23 be matched against the revenue generated in the same period. In the context of a

1 general rate case, this principle requires a time period “ matching” of revenues, costs  
2 and rate base balances used in the calculation of the revenue requirement. As  
3 described in my direct testimony, the Company’ s filed revenue requirement closely  
4 adheres to the matching principle by including costs, revenues and rate base balances  
5 on a consistent calendar year 2010 basis. To summarize, costs, revenues, and rate  
6 base balances are included in the Company’ s filed position at projected levels for the  
7 rate effective period.

8 **Q. Is Ms. Garcia’ s adjustment consistent with this matching principle?**

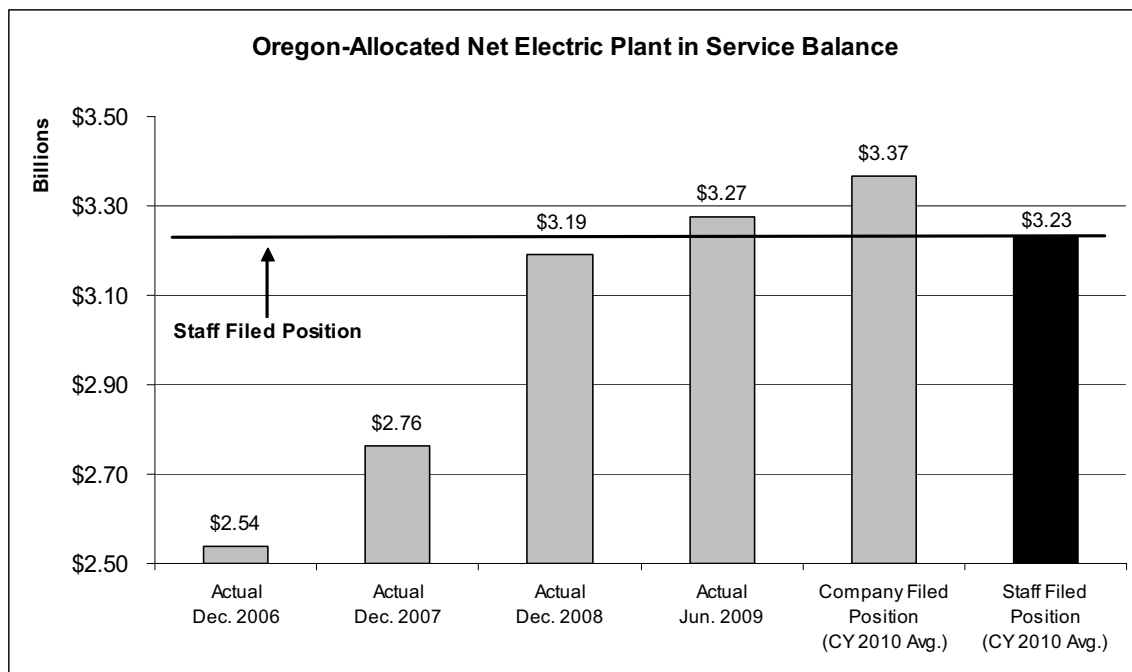
9 A. No. Ms. Garcia’ s rate base adjustment explicitly removes all projects identified to be  
10 placed into service after February 2010, effectively using a 2009 rate base level while  
11 other aspects of Staff’ s filed position remain at a calendar year 2010 Test Period  
12 level. This treatment allows customers to receive the benefits of plant additions that  
13 will be in service in the Test Period without bearing the costs of such additions. This  
14 result is contrary to the matching principle and Commission policy.

15 **Q. Are there other aspects of Staff’ s filed position that are inconsistent with the**  
16 **matching principle?**

17 A. Yes. Staff’ s proposed adjustments significantly limit the amount of capital additions  
18 included in the Test Period, while ignoring the fact that accumulated depreciation on  
19 existing plant balances continues to increase through the end of the Test Period. In  
20 other words, Staff includes the reduction to rate base for increases in accumulated  
21 depreciation on existing rate base through 2010, while substantially restricting or  
22 eliminating the additions to rate base for the same period. This treatment further  
23 exacerbates the mismatch in Staff’ s filed position.

1 **Q. Do the overall level of plant balances proposed by Staff reflect a reasonable level**  
2 **for the Test Period?**

3 A. No. The chart below shows actual Oregon-allocated plant-in-service balances from  
4 December 2006 through June 2009 compared to the Company's and Staff's filed  
5 positions for the Test Period. Staff's position in this rate case produces Oregon-  
6 allocated net plant-in-service balances for the Test Period that are less than June 2009  
7 actual levels.



8 **Q. Is it reasonably certain that an average Test Period net plant balance will be less**  
9 **than actual June 2009 levels?**

10 A. No. In order for a decline in net plant-in-service to occur from the June 2009 actual  
11 level to the levels proposed by Staff for the Test Period, the Company would  
12 effectively have to discontinue making capital investments into the system. There is  
13 no reasonable possibility of this occurring.

1 **Depreciation and Amortization**

2 **Q. Please describe Staff witness Ms. Ming Peng' s proposed adjustments to**  
3 **depreciation and amortization expense and reserve.**

4 A. Ms. Peng' s adjustments attempt to reflect the depreciation and amortization impacts  
5 of Ms. Garcia' s proposed rate base adjustments discussed in detail above.

6 **Q. Do you agree with Ms. Peng' s proposed adjustments?**

7 A. Yes, in principle. Modifications to the capital amounts included in the case require  
8 adjustments to the levels of depreciation and amortization expense and reserve.

9 However, because the Company does not agree with the majority of Ms. Garcia' s  
10 proposed adjustments to the Company' s capital additions, Ms. Peng' s adjustment is  
11 unnecessary.

12 **Q. Has the Company appropriately adjusted depreciation expense and reserve for**  
13 **the adjustments included in its revised revenue requirement?**

14 A. Yes. For each of the capital adjustments made from the Company' s original filing,  
15 the appropriate adjustments to depreciation and amortization expense and reserve  
16 have also been considered. These impacts are included as part of the individual  
17 adjustments as discussed earlier in my testimony. As a result, no additional  
18 adjustment to the level of depreciation and amortization expense or reserve is  
19 necessary.

20 **Q. Do you have concerns with Ms. Peng' s modeling of the depreciation and**  
21 **amortization expense and reserve?**

22 A. Yes. Ms. Peng' s workpapers contain several errors and inconsistencies, some of  
23 which were identified and agreed to by Staff in Company Data Request 3.21. See



1 PPL/709. I also have concerns about the integrity of the final result given that Ms.  
2 Peng' s methodology of calculating the depreciation and amortization impacts appears  
3 to be done on a project-by-project basis.

4 **Uncollectible Expense**

5 **Q. Please describe Staff witness Mr. Paul Rossow' s proposed adjustment related to**  
6 **the Company' s level of uncollectible expense.**

7 A. Mr. Rossow proposes a reduction of approximately \$963,000 to Oregon-allocated  
8 uncollectible expenses using a three-year average of net write-off levels (2006-2008).  
9 He then uses this average, escalated for inflation, to determine the level for the Test  
10 Period.

11 **Q. Do you agree with Staff' s proposed adjustment?**

12 A. No. Mr. Rossow' s use of historical averaging to determine the Test Period level of  
13 uncollectible expense is inappropriate in the current environment.

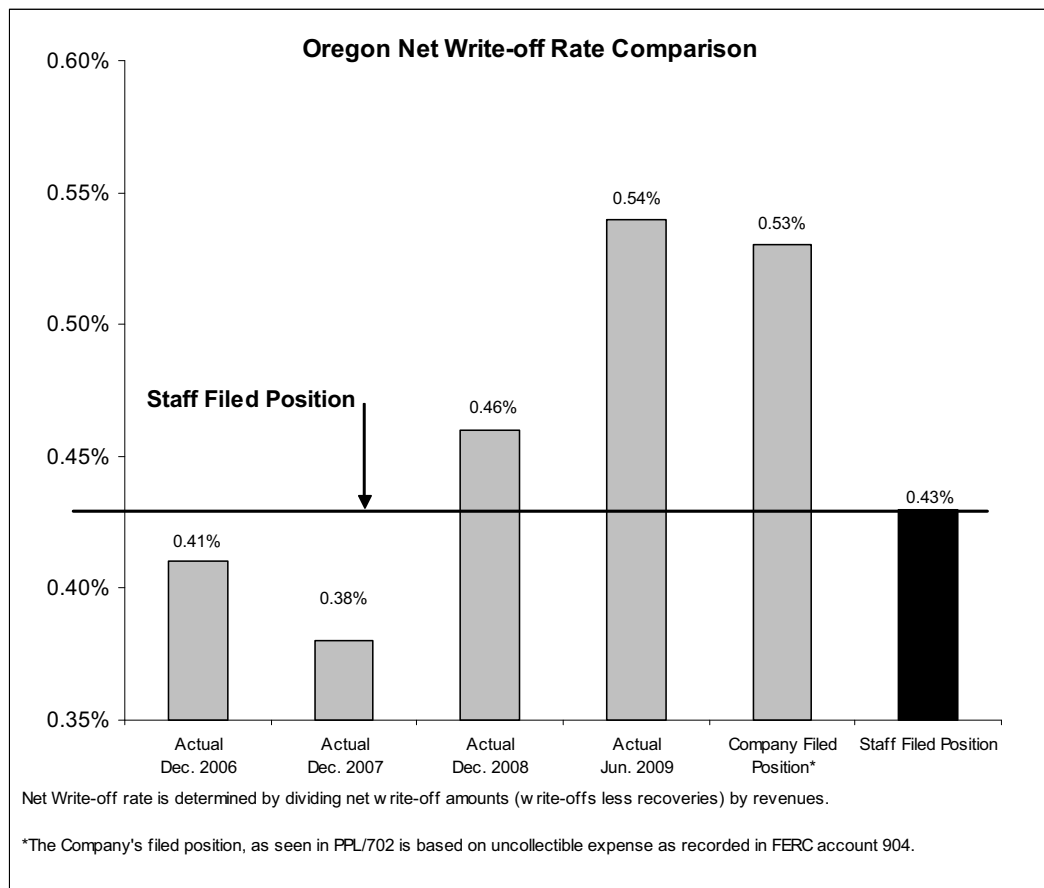
14 **Q. Why is it inappropriate to use a three-year historical average methodology?**

15 A. Mr. Rossow' s method fails to account for the steep downturn in recent economic  
16 conditions. Staff acknowledged in response to Data Request 3.8b that the write-off  
17 level has been trending upward since 2006. See PPL/709. Nevertheless, Staff stated  
18 that “ [n]o consideration was given to the upward trending of the write-off levels from  
19 2006 to the present.” In addition, Staff uses a historical average that places equal  
20 weight on years during which the economy was relatively healthy - 2006 and 2007.  
21 Mr. Rossow' s method produces a forecast of 2010 uncollectible expense that is below  
22 the actual levels seen in both the 12-months ended December 2008 and June 2009.

1 Failure to recognize the current conditions affecting the Company and its customers  
2 significantly undermines the validity of this adjustment.

3 **Q. How does the Company's proposed uncollectible expense compare with that**  
4 **proposed by Staff?**

5 A. The chart below shows the Company's actual Oregon write-off rates (net write-offs as  
6 a percentage of associated revenues) compared to the Company and Staff filed  
7 positions. As shown below, Staff proposes a 2010 write-off rate below the actual  
8 rates experienced from 2008 to the present. On the other hand, at 0.53 percent, the  
9 Company's proposed uncollectible rate is below the actual write-off rate for the year  
10 ended June 2009. This comparison demonstrates that the Company's forecast rate is  
11 conservative.



1 **Adjustment to Revenue Sensitive Uncollectible Rate**

2 **Q. Please describe Staff witness Mr. Rossow' s proposed adjustment to the**  
3 **Company' s revenue sensitive uncollectible rate.**

4 A. Mr. Rossow has applied his proposed uncollectible rate of 0.43 percent in the gross-  
5 up factor used to determine the price increase.

6 **Q. Should the Commission accept Staff' s proposed adjustment to the uncollectible**  
7 **rate used in the revenue requirement gross-up factor?**

8 A. No. For the same reasons described above, this adjustment is inappropriate and  
9 should be rejected by the Commission.

10 **Non-Captive Insurance Expense**

11 **Q. Please describe Staff witness Mr. Ball' s proposed adjustment related to non-**  
12 **captive insurance expense.**

13 A. Mr. Ball proposes to reduce the Company' s non-captive insurance expense by  
14 approximately \$1.0 million, on a total-company basis. The basis of his adjustment is  
15 the Company' s response to OPUC Data Request No. 91, in which the Company  
16 provided its calendar year 2010 projection of non-captive insurance expenses.

17 **Q. Do you agree with the Test Period level of non-captive insurance expense**  
18 **proposed by Mr. Ball?**

19 A. Yes. The Company' s response to OPUC Data Request 91 presented the forecast of  
20 non-captive insurance expense of approximately \$13.8 million for the Test Period on  
21 a total-Company basis. This figure is consistent with the Company' s budget for the  
22 same period.

1 **Q. Does an adjustment need to be made to the Company' s filed revenue**  
2 **requirement to arrive at this level of non-captive insurance expense for the Test**  
3 **Period?**

4 A. No. The Company' s filed revenue requirement already reflects non-captive insurance  
5 expense at the level proposed by Mr. Ball. As explained in my direct testimony, the  
6 Company developed O&M expense levels for the Test Period by escalating the Base  
7 Period for inflation using the Global Insight inflationary indices. This process results  
8 in non-captive insurance expense of approximately \$14.8 million referenced by Mr.  
9 Ball in his direct testimony. However, the Company made a final O&M adjustment  
10 in its original filing to true-up the overall level of O&M expenses included in the Test  
11 Period to the level included in the Company' s 2010 budget. This adjustment  
12 (“ Budget True-Up” ) was included in Exhibit PPL/702, page 4.20 and resulted in a  
13 reduction of approximately \$40.5 million O&M expenses on a total company basis.

14 **Q. Was non-captive insurance specifically itemized in this additional true-up**  
15 **adjustment contained in the Company' s original filing?**

16 A. No. The Company' s 2010 budget was not developed at a FERC account level of  
17 detail. As a result, the true-up to budget adjustment shown on page 4.20 of Exhibit  
18 PPL/702 was done at a total O&M expense level prorated to various FERC functions.  
19 However, the ultimate impact of the adjustment reduces the total level of O&M  
20 expense included in the Test Period to the level contained in the Company' s 2010  
21 budget. The non-captive insurance expense included in the Test Period is therefore  
22 already at the budgeted level of approximately \$13.8 million proposed by Mr. Ball.

1 **Q. Should the Commission accept Mr. Ball' s proposed adjustment?**

2 A. No. The Commission should reject Mr. Ball' s proposed adjustment. Acceptance of  
3 his adjustment would result in a double count of the adjustments already reflected in  
4 the Company' s original filing. If the Commission were to accept this proposed  
5 adjustment, then the Budget True-Up adjustment included in Exhibit PPL/702, page  
6 4.20, of approximately \$40.5 million on a total-company basis would need to be  
7 reduced by an equal amount, or approximately \$1.0 million.

8 **Uninsured Losses Expense**

9 **Q. Please describe Mr. Ball' s proposed adjustment to uninsured losses expense?**

10 A. Mr. Ball proposes to reduce the Company' s uninsured losses expense by  
11 approximately \$12.8 million, on a total-company basis. The basis of his adjustment is  
12 the Company' s response to OPUC Data Request No. 91, in which the Company  
13 provided its calendar year 2010 projection of uninsured losses expense.

14 **Q. Do you agree with Mr. Ball' s proposed adjustment to uninsured losses expense?**

15 A. No. Similar to the adjustment Mr. Ball proposes to non-captive insurance expense  
16 described above, Mr. Ball fails to recognize that the Company' s original filing  
17 already reflects the Company' s 2010 budget as reported in OPUC Data Request 91.

18 **Q. What is your recommendation to the Commission regarding Mr. Ball' s proposed  
19 adjustment?**

20 A. I recommend the Commission reject Mr. Ball' s proposed adjustment to uninsured  
21 losses. No adjustment is necessary to arrive at the forecasted levels proposed by Mr.  
22 Ball. If the Commission were to accept this proposed adjustment, then the Budget

1 True-Up adjustment of approximately \$40.5 million on a total-company basis would  
2 need to be reduced by an equal amount, or approximately \$12.8 million.

3 **Partial Reversal of Budget True-Up Adjustment**

4 **Q. Has Staff witness Mr. Ball attempted to reflect any reduction to the Budget**  
5 **True-Up adjustment?**

6 A. Yes. Mr. Ball attempts to reverse a portion of the Budget True-Up adjustment. As  
7 discussed above, this adjustment reduces the overall level of O&M expense included  
8 in the Test Period to the level of O&M included in the Company' s 2010 budget.  
9 Since several of Mr. Ball' s adjustments reduce O&M expenses in the escalated Base  
10 Period, he has somewhat arbitrarily reversed the administrative and general (“ A&G” )  
11 and transmission categories of the Budget True-Up adjustment, only partially  
12 restating the Budget True-Up adjustment.

13 **Q. Do you agree with Mr. Ball' s approach?**

14 A. No. The Company' s Budget True-Up adjustment should be reduced on a dollar-for-  
15 dollar basis for any O&M adjustments Mr. Ball has proposed. Mr. Ball' s approach  
16 results in an improper double count of a portion of the Budget True-Up adjustment.

17 **Q. How does Mr. Ball' s methodology result in a double count?**

18 A. The Budget True-Up adjustment was prorated among FERC functional categories  
19 based on relationships in the Base Period. Mr. Ball' s proposed adjustments impact all  
20 categories of O&M, not just the A&G and transmission portions. Removing only the  
21 A&G and transmission portions of the Budget True-Up adjustment, as Mr. Ball does,  
22 does not fully offset the portion of the Budget True-Up adjustment related to Mr.

1 Ball' s proposed adjustments. As a result, Mr. Ball' s adjustments remove O&M costs  
2 that are then removed again through the Budget True-Up adjustment.

3 **Q. How do you propose the Commission handle the Budget True-Up adjustment?**

4 A. After the Commission has determined the appropriate level of O&M costs in this  
5 proceeding, the Budget True-Up adjustment needs to be recalculated using the new  
6 Test Period O&M costs. If total O&M costs are higher than the Company' s 2010  
7 target used to calculate the Budget True-Up adjustment, the revised adjustment will  
8 reduce Test Period O&M costs to the 2010 budget. If total Test Period O&M is lower  
9 than the 2010 target used to calculate the Budget True-Up adjustment, the Budget  
10 True-Up adjustment should be completely eliminated.

11 **Meals and Entertainment Expenses**

12 **Q. Please describe Staff' s proposed adjustments to meals and entertainment, onsite  
13 meals, offsite rentals, catering, and other employee expenses.**

14 A. Staff witnesses Mr. Ball and Mr. Michael Dougherty propose adjustments to reduce  
15 expenses incurred for meals and entertainment, onsite meals, offsite rentals, catering,  
16 and other employee expenses by 50 percent. The impact of these adjustments is a  
17 reduction to Oregon-allocated O&M expense of \$136,909.

<b>Adjustment Summary by Category/Witness</b>				
	<b>Staff 202 Ball 10</b>	<b>Staff 202 Ball 12</b>	<b>Staff 302 Dougherty 1</b>	<b>Adj. TOTAL</b>
Meals & Entertainment	31,299	2,389	51,933	85,620
On-site Meals	12,723	967	18,233	31,924
Off-site Rentals	-	-	7	7
Catering	-	-	4,462	4,462
Other Employee Expenses	-	-	14,896	14,896
<b>Adj. TOTAL</b>	<b>44,022</b>	<b>3,356</b>	<b>89,531</b>	<b>136,909</b>

1 In Mr. Dougherty' s testimony, he insists that this is a routine adjustment that  
2 promotes cost sharing between customers and shareholders.

3 **Q. Does the Company agree with Staff' s proposed adjustment?**

4 A. No. The majority of this adjustment removes meals and entertainment and on-site  
5 meals expenses. The main purpose of these types of expenses is providing meals to  
6 employees when required to work overtime on a project, travel for Company  
7 business, or work offsite. The Company believes that such expenses are important to  
8 maintain a productive and safe work environment and should be allowed.

9 **Q. Should the Commission accept Staff' s proposed adjustments to meals and**  
10 **entertainment and other miscellaneous expenses?**

11 No.

12 **FERC Proceeding ER07-882 Legal Fees Amortization**

13 **Q. Please describe Staff witness Mr. Ball' s proposed adjustments to legal fees**  
14 **associated with FERC proceeding ER07-882.**

15 A. Mr. Ball proposes to amortize approximately \$176,000 of Oregon-allocated legal fees  
16 associated with FERC proceeding ER07-882 ( " FERC Litigation" ) over a 10-year  
17 period.

18 **Q. Please provide a brief summary of the legal fees associated with FERC**  
19 **Litigation.**

20 A. PacifiCorp owns and operates a 47-mile transmission line segment that runs between  
21 its Malin substation located in southern Oregon and a point in northern California  
22 known as Indian Springs (the " Malin Line" ). PacifiCorp leased the full capacity of  
23 the Malin Line to a group of California utilities from its original construction in 1967



1 until the lease expiration in 2007. Upon lease expiration, PacifiCorp was required to  
2 litigate its right to terminate the lease. Ultimately, the litigation resulted in a  
3 settlement agreement whereby PacifiCorp agreed to lease the Malin Line to the  
4 California utilities under new stipulated terms.

5 **Q. Do you agree with Mr. Ball’ s proposed adjustment?**

6 **A.** No. PacifiCorp incurs legal fees on a regular basis that are related to one-time  
7 agreements. For example, PacifiCorp enters into power purchase agreements with  
8 qualifying facilities on a regular basis with terms of up to 20 years. The legal costs  
9 associated with these contracts are expensed in the period in which they are incurred  
10 and are not amortized over the life of the contract. Establishing a policy requiring the  
11 Company to amortize legal expenses in the manner proposed by Mr. Ball would be  
12 highly burdensome while providing very little benefit to customers. Mr. Ball has not  
13 presented a basis for changing Commission policy on this issue. As such, the  
14 Commission should reject Mr. Ball’ s proposed adjustment.

15 **Enhanced Reliability Standards**

16 **Q. Please describe Staff witness Mr. Ball’ s proposed adjustment to costs associated**  
17 **with enhanced reliability standards.**

18 **A.** Mr. Ball’ s proposed adjustment removes \$388,236 of Oregon-allocated O&M  
19 expense related to compliance with mandatory enhanced reliability standards. Mr.  
20 Ball states, “ PacifiCorp has not met its burden of proof to demonstrate why additional  
21 funding is necessary.” He asserts that the level of expense included in the Base  
22 Period, adjusted for inflation, is sufficient to allow the Company to recover the  
23 additional costs associated with the new mandatory standards. Mr. Ball also states

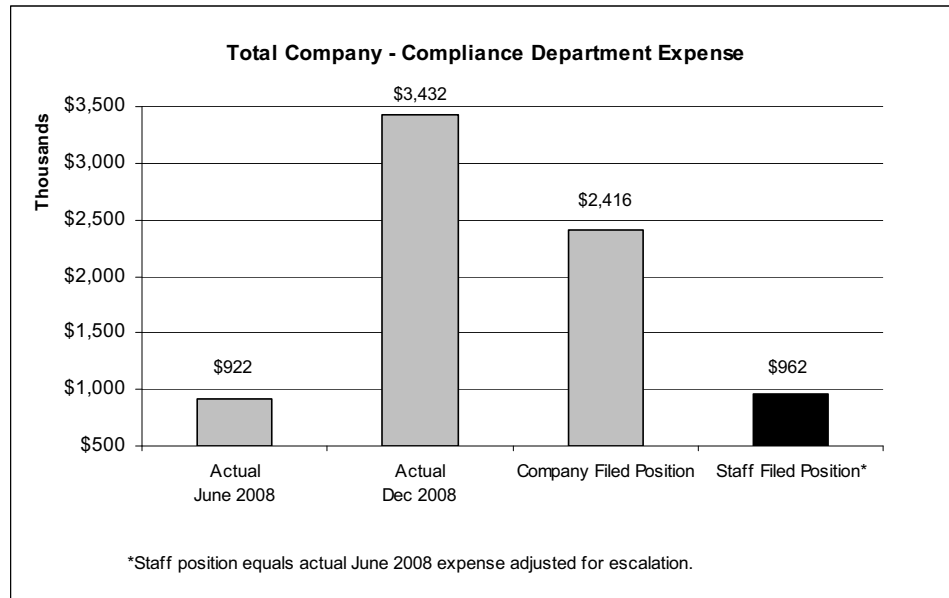
1 that significant costs related to compliance of these standards are labeled as  
2 “ planning” costs and are nonrecurring in nature.

3 **Q. Do you agree with Mr. Ball’ s proposed adjustment?**

4 A. No. As discussed in detail by Company witness Mr. Richard P. Reiten, the Company  
5 has incurred and continues to incur considerable costs due to the enhanced reliability  
6 standards imposed by the North American Electric Reliability Corporation and the  
7 Western Electricity Coordinating Council. The original cost estimate to comply with  
8 these standards was \$2.4 million (total-company basis) for the Test Period, of which  
9 approximately \$922,000 (total-company basis) was included in the Company’ s Base  
10 Period.

11 **Q. Are the costs included in the Company’ s filing related to compliance with the**  
12 **enhanced reliability standards conservative?**

13 A. Yes. In the 12-months ended December 2008, the Company actually incurred  
14 approximately \$3.4 million on a total-company basis in compliance with these new  
15 standards - significantly more than the Company proposed for the Test Period in this  
16 proceeding. The chart below compares actual data for June 2008 and December 2008  
17 to Staff’ s proposal and the Company’ s request.



1 **Q. Are these costs one-time “ planning” costs as claimed by Mr. Ball?**

2 A. No. PacifiCorp’ s obligation to comply with the mandatory reliability standards will  
3 continue indefinitely. While there was an initial planning effort to ensure that  
4 compliance could be achieved, the continued effort to maintain compliance with the  
5 standards is higher than anticipated and will impose ongoing expenses that the  
6 Company will be required to incur.

7 **Q. Should the Commission accept Mr. Ball’ s proposed adjustment?**

8 A. No. The Commission should reject Mr. Ball’ s proposed adjustment. Limiting  
9 compliance expenses to the level included in the Base Period, escalated for inflation,  
10 does not provide the recovery necessary to maintain compliance with these  
11 mandatory reliability standards.

12 **Construction Work in Progress (“ CWIP” ) Write-off Expenses**

13 **Q. Please summarize Staff’ s proposed adjustment to CWIP write-off expenses.**

14 A. Staff witnesses Mr. Dougherty and Mr. Ball propose to disallow a total of  
15 approximately \$1.3 million of Oregon-allocated CWIP write-off expenses (also

1 referred to as AUC expense by Mr. Ball). In his testimony, Mr. Dougherty argues  
2 that the Company should not be allowed to recover these expenses through customer  
3 rates because they are related to projects not placed in service or used for providing  
4 utility service to Oregon customers. For projects labeled “ New Revenue,” he  
5 suggests that one way for the Company to recover these expenses is to “ attempt to bill  
6 and recover the write-off amounts from specific sources of new revenue.” Staff/300,  
7 Dougherty/5, lines 17-19. For other types of projects, such as those listed as  
8 “ Mandated, Public Accommodations and Other (Replace, Upgrade, Temporary  
9 Connections),” Mr. Dougherty simply states that the Company should not be allowed  
10 to recover these costs because the projects were never placed in service.

11 **Q. What are these costs?**

12 A. The majority of the distribution expenses in Mr. Dougherty’ s adjustment are  
13 attributable to expirations of service estimates provided by the Company or when  
14 customers indicate they no longer wish to pursue a project for which an estimate was  
15 provided by the Company.

16 **Q. Do you agree with Staff’ s rationale that expenses must be related to a project  
17 placed in service and used for providing utility service to Oregon customers in  
18 order to justify recovery of the expenses?**

19 A. No. Providing an estimate is a necessary customer service for any person requesting,  
20 relocating or upgrading service in Oregon. PacifiCorp’ s Customer Guarantee No. 4  
21 in the Oregon tariff requires that for Residential and Schedule 23 customers, “ [a]n  
22 estimate for new supply will be supplied to the Applicant or Customer within 15  
23 working days after the initial meeting and all necessary information is provided and

1 any required payment is made.” If PacifiCorp fails to meet this requirement, a  
2 qualifying customer’ s account is automatically credited \$50. *See* Oregon Rule 25,  
3 General Rules and Regulations, Customer Guarantees. The Company’ s Customer  
4 Guarantee Program was approved by the Commission as part of the MEHC  
5 acquisition of PacifiCorp in Docket UM 1209.

6 **Q. Why is providing estimates to customers a necessary activity?**

7 A. Many customers need this information prior to proceeding with a project. To make  
8 educated decisions, customers and applicants must be informed of what requirements  
9 (including costs) are necessary to make changes to their current service or receive  
10 new service. To that end, the Company must prepare estimates to provide customers  
11 and applicants with the necessary information.

12 **Q. Please explain the process for providing customers with electric service request**  
13 **estimates.**

14 A. PacifiCorp provides thousands of estimates annually for customers or applicants  
15 requesting new electric service or a redesign (relocating/adding capacity) of existing  
16 service at their homes or businesses. To provide an estimate, a PacifiCorp estimator  
17 typically begins by traveling to the home or business of the customer to discuss the  
18 requested service and assess the proposed connection. Depending on the complexity  
19 of the connection, the estimator may develop drawings and perform calculations in  
20 order to provide the customer with an accurate estimate. All of the estimator’ s time  
21 required for an estimate is recorded as CWIP.

22 Once an estimate and contract are presented to a customer, the customer has  
23 90 days to sign the contract and pay any applicable advance costs. Estimates must be

1 recalculated if the contract is not signed in 90 days or the project has not commenced  
2 within 150 days of the contract. If the customer elects to proceed, the project costs,  
3 including the expenses related to the original estimate are capitalized and included in  
4 rate base. For various reasons, customers may decide not to go forward with the  
5 service connection or redesign. In those cases, all estimator time and expenses are  
6 credited from CWIP and debited to O&M expense as part of the Company' s routine  
7 operations.

8 **Q. What are some of the reasons a customer might cancel a project after an**  
9 **estimate has been provided?**

10 A. The following are typical reasons that customers elect to cancel a project after an  
11 estimate has been provided:

- 12 • Customers may be unfamiliar with the costs associated with bringing electric  
13 service to their site. Once an estimate has been provided, a customer may decide  
14 that it is unable to pay to complete the job. For example, applicants may not  
15 realize that an upgraded transformer or larger pole is required for their service or  
16 the costs associated with necessary trenching.
- 17 • A customer may not be able to obtain easements or rights of way from  
18 neighboring properties.
- 19 • A customer may face unexpected economic hardship.
- 20 • A customer may be unable to obtain financing for a project. Often, a written  
21 estimate is required by financial institutions prior to approving funding.

1 **Q. Does PacifiCorp require a customer to advance the costs of providing estimates**  
2 **in Oregon?**

3 A. For customers requesting service under 1000 kW, the Company generally provides  
4 the initial estimate at no charge. For other customers or applicants, the Company may  
5 require a customer to advance estimated engineering, design and estimation costs,  
6 which are then applied to the costs for a line extension under Oregon Rule 13(I)(C).

7 **Q. Please explain why PacifiCorp does not require all customers to advance**  
8 **estimate costs as allowed under its line extension tariff?**

9 A. The Company does not require all customers to advance estimation costs for several  
10 reasons. First, as a matter of policy, the Company strives to provide customers with  
11 the necessary information to make informed decisions in a prompt and professional  
12 manner. Second, charging customers a fee prior to the commencement of any  
13 estimate would require additional administrative expense, including additional  
14 employee time to administer the fees, computer system changes, accounting,  
15 processing and refunds. Finally, requiring the estimating fee in advance would add  
16 another step to the line extension process, further delaying the timeframe to receive  
17 the estimate and deliver service upon execution of a line extension contract.

18 **Q. Staff suggests that one way PacifiCorp could recover estimation expenses**  
19 **associated with New Revenue projects is to attempt to bill and recover the costs**  
20 **through separate charges. Are there any challenges associated with this**  
21 **approach?**

22 A. Yes, for the same reasons identified above—it would be administratively burdensome  
23 and possibly result in delays in the timeframe to receive the estimate. Additionally,

1 attempting to recover estimation costs after a job is cancelled would be very difficult  
2 because the Company would have no leverage to collect the costs. Moreover, the  
3 Company would likely spend more money attempting to collect the costs associated  
4 with the cancelled job than was actually incurred to perform the estimate.

5 **Q. Staff also provides an alternate recommendation to share Oregon New Revenue**  
6 **CWIP costs equally between shareholders and customers. Do you believe this**  
7 **approach is equitable?**

8 A. No. Providing estimates is a cost of doing business. All customers are eligible to  
9 receive this service; therefore, it is reasonable for the costs to be spread across all  
10 customers.

11 **Q. Should there be a distinction between costs associated with projects Mr.**  
12 **Dougherty classifies as New Revenue versus Mandated, Public Administration**  
13 **and Other, as suggested by Mr. Dougherty?**

14 A. No. The Company's process for providing customers with electric service estimates  
15 and the reasons supporting the Company's recovery of costs related to this service are  
16 the same for both types of projects.

17 **Q. Should the Commission accept Staff's proposed adjustment?**

18 A. No. As discussed previously these costs are incurred as part of providing electric  
19 service to customers.

20 **Property Tax Adjustment**

21 **Q. Does Staff make an adjustment to property taxes in addition to the property tax**  
22 **adjustment addressed by Company witness Mr. Norman K. Ross?**

23 A. Yes. Staff makes an additional adjustment to property tax expenses related to rate



1 base adjustments proposed in other Staff adjustments. In her direct testimony, Ms.  
2 Garcia states this adjustment aligns Staff' s proposed rate base reductions with the  
3 amount of property taxes the Company will actually pay.

4 **Q. Is it correct to adjust property taxes for Staff' s proposed rate base removals?**

5 A. No. This methodology is flawed as addressed in the reply testimony of Mr. Ross. In  
6 addition, Staff' s proposed calculation is inconsistent with the Revised Protocol  
7 methodology of allocating property taxes to Oregon.

8 **Q. Please explain how Staff' s calculation is inconsistent with the Revised Protocol**  
9 **allocation methodology?**

10 A. Staff applied a property tax rate to Oregon-allocated rate base amounts effectively  
11 allocating property taxes using several allocation factors instead of applying the rate  
12 to total company amounts and then allocating using the Gross Plant – System  
13 (“ GPS” ) factor. This results in an overstatement of Staff' s adjustment by \$329,000.

14 **Adjustment to Oregon' s Allocation of Labor**

15 **Q. Please describe ICNU-CUB witness Ms. Ellen Blumenthal' s proposed**  
16 **adjustment to Oregon' s allocated share of labor and benefit expenses.**

17 A. Ms. Blumenthal' s proposed adjustment reduces Oregon' s allocated share of wages  
18 and employee benefits from the Company' s initial filing of 29.5 percent to 19.7  
19 percent. The impact of this adjustment is a reduction to Oregon revenue requirement  
20 of approximately \$47 million.

21 **Q. Do you agree with Ms. Blumenthal' s proposed adjustment to Oregon' s allocated**  
22 **share of labor and benefit expenses?**

23 A. No. Ms. Blumenthal' s adjustment appears to stem from a misplaced reliance on the

1 data presented in the Company’ s responses to ICNU Data Requests 9.8 and 9.33. In  
2 these responses, the Company provided Oregon-allocated figures for wages as  
3 requested but noted in the written response that the data provided did not reflect the  
4 allocation of FERC 707 expenses and did not reflect the final allocation of other  
5 accounts.

6 **Q. Has the Company provided supplemental responses to ICNU Data Requests 9.8**  
7 **and 9.33 clarifying this information?**

8 A. Yes. Upon receiving Ms. Blumenthal’ s direct testimony, the Company became aware  
9 that Ms. Blumenthal had misinterpreted the data contained in the Company’ s original  
10 data responses. As a result, the Company provided a supplemental response  
11 explaining that the original response did not provide an accurate view of the final  
12 allocation of wage expenses, and providing clarifying information. The narrative  
13 portions of the Company’ s original and supplemental responses to these data requests  
14 are provided as Exhibit PPL/710.

15 **Q. What additional information did the supplemental response provide?**

16 A. The Company’ s second supplemental response to ICNU Data Request 9.8 explained  
17 in greater detail the implications of the fact that the original response did not reflect  
18 the allocation of FERC 707 expenses and did not reflect the final allocation of other  
19 accounts.

20 In 2007, the Company began using FERC 707 as a temporary labor clearing  
21 account, which is by far the largest account for labor costs. As explained in the  
22 second supplemental response, the numbers provided in the original response showed  
23 the FERC 707 costs as allocated to “ Other” instead of system-allocated to all states.

1 The effect of this treatment was to reflect FERC 707 costs in total expense but to  
2 assign none of the expense to Oregon. Ms. Blumenthal incorrectly calculated Oregon  
3 allocation ratios of 19.90 percent and 18.86 percent in 2007 and 2008, respectively.

4 **Q. Did the supplemental response explain the method which the Company used to**  
5 **derive the Oregon-allocated share of labor costs applied in this case?**

6 A. Yes. The Test Period projection of 29.5 percent for the Oregon-allocated share of  
7 labor and benefit expenses as filed in Exhibit PPL/702 is based on actual data for the  
8 12-month period ended June 2008, including all labor allocation activity processing.

9 **Q. Is the Company' s proposed 2010 Oregon-allocated share reasonable when**  
10 **compared with actual historical data?**

11 A. Yes. The table below reflects Oregon' s final labor allocation percentages for 2006,  
12 2007, and 2008 as reported in the Company' s annual Results of Operations Reports  
13 filed with the Commission and provided to other parties. The table also shows the  
14 Oregon-allocated share applied in both the Company' s and ICNU-CUB' s filed  
15 positions. This demonstrates that Ms. Blumenthal' s “ declining trend” analysis is  
16 mistaken. However, the Company' s allocation of labor and benefit expenses in this  
17 case is slightly less than the actual Oregon-allocation for calendar year 2008.

Year	Final Oregon Alloc. %
2006 - Actual	30.59%
2007 - Actual	30.10%
2008 - Actual	30.37%
2010 Company Filed Position	29.50%
2010 ICNU/CUB Filed Position	19.68%

18 **Q. What factors contribute to changes in the labor allocation?**

19 A. Consistent with the Commission-approved Revised Protocol allocation methodology,

1 labor expenses are allocated to states based on the type of work identified. For  
2 example, generation and transmission labor expenses are primarily allocated using the  
3 system generation (“ SG” ) factor, while distribution labor expenses are primarily situs  
4 assigned. Allocation factors change as each state’ s contribution to total system  
5 energy and coincident peaks changes. The Company’ s filing has been prepared in  
6 accordance with the Commission-approved methodology of allocating labor costs to  
7 Oregon.

8 **Q. Should the Commission accept Ms. Blumenthal’ s adjustment related to Oregon’ s**  
9 **allocated share of labor expenses?**

10 A. No. The Commission should reject Ms. Blumenthal’ s proposed adjustment as it  
11 clearly does not provide an accurate view of Oregon’ s overall labor allocation.

12 Acceptance of this adjustment would be a deviation from the Commission-approved  
13 allocation methodology and would result in a level of Oregon-allocated labor and  
14 benefit expenses to levels not experienced by the Company since the late 1980’ s.

15 **Increase in Employee Levels**

16 **Q. Please describe ICNU-CUB witness Ellen Blumenthal’ s proposed adjustment**  
17 **related to alleged increases to employee levels.**

18 A. Ms. Blumenthal’ s proposed adjustment removes approximately \$7.3 million Oregon-  
19 allocated expenses related to salary and benefit expenses for 311 full time equivalents  
20 (FTEs). Ms. Blumenthal asserts that the Company’ s filing includes 311 additional  
21 FTEs above actual 2008 calendar year levels.

1 **Q. What is the basis of Ms. Blumenthal’ s assertion that the Company’ s filing**  
2 **includes 311 additional FTEs?**

3 A. Ms. Blumenthal references the Company’ s response to OPUC Data Request 165 in  
4 which the Company provided actual full and part-time headcount of 5,802 as of  
5 December 2008 and a projected headcount of 6,113 for calendar year 2010.

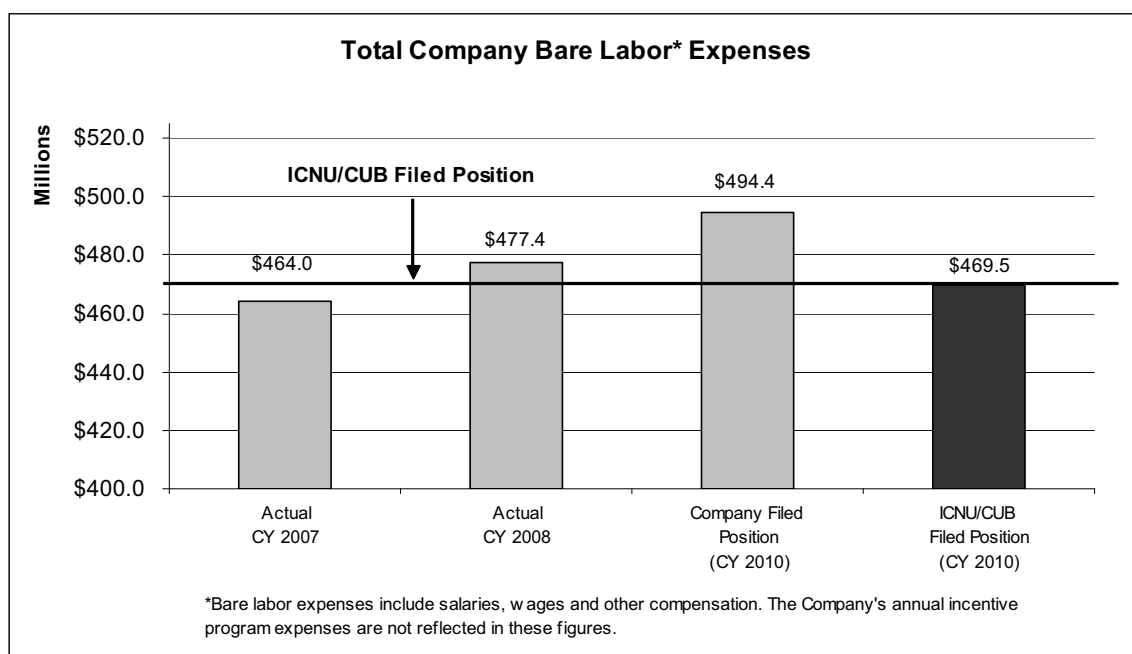
6 **Q. Do you agree with Ms. Blumenthal’ s assertion that the Company’ s budget**  
7 **includes higher projected employee levels than the historical period?**

8 A. Yes, in part. The Company’ s projected number of employees for calendar year 2010  
9 includes 6,113 of full- and part-time employees. However, while the budgeted  
10 headcount may show additional employees, the costs related to those additional  
11 employees have not been included in the Company’ s filing, because the majority of  
12 the 311 full- and part-time employee increases will remain unfilled during the Test  
13 Period. As stated in the direct testimony of Mr. Reiten, “ The Company has  
14 proactively and aggressively controlled operations and maintenance (“ O&M” )  
15 expenses and administrative and general (“ A&G” ) expenses.” Part of the process of  
16 controlling costs includes setting aggressive (low) total O&M targets for each of the  
17 Company’ s business units. As provided in the Company’ s response to OPUC Data  
18 Request 279, in 2008 the Company’ s actual employee levels were 263 FTEs less than  
19 the Company’ s budget. In 2007, actual employee levels were 388 FTEs less than the  
20 budget.

21 **Q. Does the Company’ s revenue requirement reflect a reasonable level of costs?**

22 A. Yes. Bare labor expenses (wages, salaries, and other compensation) for calendar year  
23 2007 were approximately \$464 million and for 2008 were approximately \$477.4

1 million, as reported in the Company’ s annual Results of Operations Reports filed with  
 2 the Commission and provided to other parties. The adjustment proposed by ICNU-  
 3 CUB would result in a bare labor of approximately \$469.5 millio, which is below the  
 4 actual level for 2008. This is clearly not a reasonable result. On the other hand, the  
 5 Company’ s revenue requirement reflects an annual increase to bare labor expenses of  
 6 approximately 1.8 percent. The chart below reflects these figures.



7 **Q. What do you recommend with respect to ICNU-CUB’ s adjustment related to the**  
 8 **level of employees?**

9 A. I recommend the Commission reject the adjustment because the increase in  
 10 employees cited by Ms. Blumenthal was not used as a basis for calculating labor costs  
 11 in the Company’ s filing. In addition, ICNU-CUB’ s position on total bare labor costs  
 12 for the Test Period results in a level of costs less than actual 2008 amounts.

1 **Pensions, Benefits and Payroll Taxes**

2 **Q. Please describe ICNU-CUB witness Ms. Blumenthal' s proposed adjustment**  
3 **related to pensions and benefit expenses and payroll taxes.**

4 A. Ms. Blumenthal' s adjustment reduces 401(k) expenses to the corrected level as  
5 provided in the Company' s response to OPUC Data Request 206. She also reduces a  
6 pro-rata share of pension, benefit, and payroll tax expenses in connection with her  
7 salary adjustment discussed above and her incentive adjustment discussed in the reply  
8 testimony of Mr. Wilson.

9 **Q. Do you agree with Ms. Blumenthal' s proposed adjustment?**

10 A. Yes, in part. As explained in the reply testimony of Mr. Wilson, the Company  
11 accepts the correction to 401(k) expense as provided in the Company' s response to  
12 OPUC Data Request 206. The Company' s acceptance of Mr. Ball' s proposed  
13 adjustment to 401(k) expenses includes this correction. The Company has reflected  
14 this adjustment as part of Adjustment 12.7 of Exhibit PPL/708.

15 Ms. Blumenthal' s adjustment to pensions, benefits and payroll taxes is  
16 unnecessary since her adjustments to salaries and incentives are inappropriate as  
17 explained above and in the reply testimony of Mr. Wilson.

18 **Q. Does this conclude your testimony?**

19 A. Yes.





Docket No. UE-210  
Exhibit PPL/707  
Witness: R. Bryce Dalley

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of R. Bryce Dalley**

**Oregon Results of Operations Summary  
December 2010**

**August 2009**

**PacifiCorp  
OREGON**  
**Normalized Results of Operations - REVISED PROTOCOL**  
**Twelve Months Ending Dec 31, 2010**

	(1)	(2)	(3)	(4)	(5)	(6)
		(3) - (1)	Ref. Page 1.1			(3) + (4) + (5)
	NPC-Related Results	Non-NPC Related Results	Total Adjusted Results	TAM NPC-Related Under Recovery	GRC Requested Non-NPC Related Price Change	Total Normalized Results with Price Change
1 Operating Revenues:						
2 General Business Revenues	252,395,751	696,945,552	949,341,303	19,969,132	82,748,845	1,052,059,280
3 Interdepartmental		-	-			-
4 Special Sales	185,483,438	963,190	186,446,628			186,446,628
5 Other Operating Revenues		42,876,160	42,876,160			42,876,160
6 Total Operating Revenues	<u>437,879,189</u>	<u>740,784,902</u>	<u>1,178,664,091</u>	<u>19,969,132</u>	<u>82,748,845</u>	<u>1,281,382,068</u>
7						
8 Operating Expenses:						
9 Steam Production	169,775,591	80,783,699	250,559,290			250,559,290
10 Nuclear Production		-	-			-
11 Hydro Production		9,911,805	9,911,805			9,911,805
12 Other Power Supply	249,222,139	12,213,053	261,435,192			261,435,192
13 Transmission	38,850,591	13,705,242	52,555,833			52,555,833
14 Distribution		70,710,593	70,710,593			70,710,593
15 Customer Accounting		31,710,902	31,710,902		545,609	32,256,512
16 Customer Service & Info		3,695,469	3,695,469			3,695,469
17 Sales		-	-			-
18 Administrative & General		49,670,470	49,670,470			49,670,470
19						
20 Total O&M Expenses	<u>457,848,321</u>	<u>272,401,234</u>	<u>730,249,555</u>	<u>-</u>	<u>-</u>	<u>730,249,555</u>
21						
22 Depreciation		147,845,235	147,845,235			147,845,235
23 Amortization		16,476,351	16,476,351			16,476,351
24 Taxes Other Than Income		51,966,873	51,966,873		2,376,074	54,342,947
25 Income Taxes - Federal	(6,671,887)	30,430,290	23,758,403	6,671,887	26,671,053	57,101,342
26 Income Taxes - State	(906,599)	5,744,726	4,838,128	906,599	3,624,153	9,368,880
27 Income Taxes - Def Net		17,114,105	17,114,105			17,114,105
28 Investment Tax Credit Adj.		-	-			-
29 Misc Revenue & Expense		(2,076,505)	(2,076,505)			(2,076,505)
30						
31 Total Operating Expenses:	<u>450,269,836</u>	<u>539,902,308</u>	<u>990,172,144</u>	<u>7,578,485</u>	<u>33,216,889</u>	<u>1,030,967,519</u>
32						
33 Operating Rev For Return:	<u>(12,390,647)</u>	<u>200,882,594</u>	<u>188,491,947</u>	<u>12,390,647</u>	<u>49,531,955</u>	<u>250,414,549</u>
34						
35 Rate Base:						
36 Electric Plant In Service		5,543,234,819	5,543,234,819			5,543,234,819
37 Plant Held for Future Use		(0)	(0)			(0)
38 Misc Deferred Debits		20,133,708	20,133,708			20,133,708
39 Elec Plant Acq Adj		18,568,147	18,568,147			18,568,147
40 Nuclear Fuel		-	-			-
41 Prepayments		12,201,019	12,201,019			12,201,019
42 Fuel Stock		41,007,740	41,007,740			41,007,740
43 Material & Supplies		49,319,573	49,319,573			49,319,573
44 Working Capital		12,584,036	12,584,036			12,584,036
45 Weatherization Loans		(696)	(696)			(696)
46 Misc Rate Base		1,206,251	1,206,251			1,206,251
47						
48 Total Electric Plant:	<u>-</u>	<u>5,698,254,596</u>	<u>5,698,254,596</u>	<u>-</u>	<u>-</u>	<u>5,698,254,596</u>
49						
50 Rate Base Deductions:						
51 Accum Prov For Deprec		(2,041,168,235)	(2,041,168,235)			(2,041,168,235)
52 Accum Prov For Amort		(141,105,146)	(141,105,146)			(141,105,146)
53 Accum Def Income Tax		(551,004,650)	(551,004,650)			(551,004,650)
54 Unamortized ITC		(4,172,305)	(4,172,305)			(4,172,305)
55 Customer Adv For Const		(3,499,244)	(3,499,244)			(3,499,244)
56 Customer Service Deposits		-	-			-
57 Misc Rate Base Deductions		(21,182,496)	(21,182,496)			(21,182,496)
58						
59 Total Rate Base Deductions	<u>-</u>	<u>(2,762,132,076)</u>	<u>(2,762,132,076)</u>	<u>-</u>	<u>-</u>	<u>(2,762,132,076)</u>
60						
61 Total Rate Base:	<u>-</u>	<u>2,936,122,520</u>	<u>2,936,122,520</u>	<u>-</u>	<u>-</u>	<u>2,936,122,520</u>
62						
63 Return on Rate Base			6.420%			8.529%
64						
65 Return on Equity			6.865%			11.000%

**PacifiCorp**  
**OREGON**  
**Normalized Results of Operations - REVISED PROTOCOL**  
**Twelve Months Ending Dec 31, 2010**

Exhibit PPL/707  
Dalley/2

	(1) Total Adjusted Results	(2) Price Change	(3) Results with Price Change
1 Operating Revenues:			
2 General Business Revenues	949,341,303	102,717,977	1,052,059,280
3 Interdepartmental	-		
4 Special Sales	186,446,628		
5 Other Operating Revenues	42,876,160		
6 Total Operating Revenues	<u>1,178,664,091</u>		
7			
8 Operating Expenses:			
9 Steam Production	250,559,290		
10 Nuclear Production	-		
11 Hydro Production	9,911,805		
12 Other Power Supply	261,435,192		
13 Transmission	52,555,833		
14 Distribution	70,710,593		
15 Customer Accounting	31,710,902	545,609	32,256,512
16 Customer Service & Info	3,695,469		
17 Sales	-		
18 Administrative & General	49,670,470		
19			
20 Total O&M Expenses	730,249,555		
21			
22 Depreciation	147,845,235		
23 Amortization	16,476,351		
24 Taxes Other Than Income	51,966,873	2,376,074	54,342,947
25 Income Taxes - Federal	23,758,403	33,342,940	57,101,342
26 Income Taxes - State	4,838,128	4,530,752	9,368,880
27 Income Taxes - Def Net	17,114,105		
28 Investment Tax Credit Adj.	-		
29 Misc Revenue & Expense	(2,076,505)		
30			
31 Total Operating Expenses:	990,172,144	40,795,375	1,030,967,519
32			
33 Operating Rev For Return:	<u>188,491,947</u>	<u>61,922,602</u>	<u>250,414,549</u>
34			
35 Rate Base:			
36 Electric Plant In Service	5,543,234,819		
37 Plant Held for Future Use	(0)		
38 Misc Deferred Debits	20,133,708		
39 Elec Plant Acq Adj	18,568,147		
40 Nuclear Fuel	-		
41 Prepayments	12,201,019		
42 Fuel Stock	41,007,740		
43 Material & Supplies	49,319,573		
44 Working Capital	12,584,036		
45 Weatherization Loans	(696)		
46 Misc Rate Base	1,206,251		
47			
48 Total Electric Plant:	5,698,254,596	-	5,698,254,596
49			
50 Rate Base Deductions:			
51 Accum Prov For Deprec	(2,041,168,235)		
52 Accum Prov For Amort	(141,105,146)		
53 Accum Def Income Tax	(551,004,650)		
54 Unamortized ITC	(4,172,305)		
55 Customer Adv For Const	(3,499,244)		
56 Customer Service Deposits	-		
57 Misc Rate Base Deductions	(21,182,496)		
58			
59 Total Rate Base Deductions	(2,762,132,076)	-	(2,762,132,076)
60			
61 Total Rate Base:	<u>2,936,122,520</u>	<u>-</u>	<u>2,936,122,520</u>
62			
63 Return on Rate Base	6.420%		8.529%
64			
65 Return on Equity	6.865%		11.000%
66			
67 TAX CALCULATION:			
68 Operating Revenue	234,202,582	99,796,294	333,998,876
69 Other Deductions			
70 Interest (AFUDC)	-	-	-
71 Interest	85,221,543	-	85,221,543
72 Schedule "M" Additions	252,520,086	-	252,520,086
73 Schedule "M" Deductions	289,540,060	-	289,540,060
74 Income Before Tax	111,961,065	99,796,294	211,757,359
75			
76 State Income Taxes	4,838,128	4,530,752	9,368,880
77 Taxable Income	<u>107,122,937</u>	<u>95,265,542</u>	<u>202,388,479</u>
78			
79 Federal Income Taxes + Other	<u>23,758,403</u>	<u>33,342,940</u>	<u>57,101,342</u>

**PacifiCorp**  
**Normalized Results of Operations**  
**Adjustment Summary**  
**Twelve Months Ending Dec 31, 2010**

Exhibit PPL/707  
Dalley/3

	Total Company Filed Results December 2010	Oregon Allocated Filed Results December 2010	Tab 12 - Reply Adjustments	Oregon Allocated Reply Results December 2010
1 Operating Revenues:				
2 General Business Revenues	3,553,650,952	949,341,303	-	949,341,303
3 Interdepartmental	-	-	-	-
4 Special Sales	755,003,589	201,716,768	(15,270,140)	186,446,628
5 Other Operating Revenues	185,918,747	42,876,105	55	42,876,160
6 Total Operating Revenues	4,494,573,288	1,193,934,176	(15,270,085)	1,178,664,091
7				
8 Operating Expenses:				
9 Steam Production	984,803,361	251,950,077	(1,390,787)	250,559,290
10 Nuclear Production	-	-	-	-
11 Hydro Production	36,878,549	9,911,805	-	9,911,805
12 Other Power Supply	1,123,036,510	275,007,872	(13,572,680)	261,435,192
13 Transmission	190,741,324	51,260,023	1,295,810	52,555,833
14 Distribution	218,255,971	70,710,593	-	70,710,593
15 Customer Accounting	94,717,057	31,710,902	-	31,710,902
16 Customer Service & Info	34,210,049	3,695,469	-	3,695,469
17 Sales	-	-	-	-
18 Administrative & General	186,328,399	57,051,637	(7,381,167)	49,670,470
19				
20 Total O&M Expenses	2,868,971,219	751,298,378	(21,048,823)	730,249,555
21				
22 Depreciation	515,917,994	148,046,103	(200,868)	147,845,235
23 Amortization	66,908,040	16,475,737	614	16,476,351
24 Taxes Other Than Income	130,014,866	51,964,717	2,156	51,966,873
25 Income Taxes - Federal	64,951,362	20,969,445	2,788,958	23,758,403
26 Income Taxes - State	14,798,811	4,470,103	368,025	4,838,128
27 Income Taxes - Def Net	110,991,798	17,791,779	(677,674)	17,114,105
28 Investment Tax Credit Adj.	(1,874,204)	-	-	-
29 Misc Revenue & Expense	(9,703,584)	(2,076,510)	4	(2,076,505)
30				
31 Total Operating Expenses:	3,760,976,302	1,008,939,751	(18,767,607)	990,172,144
32				
33 Operating Rev For Return:	733,596,986	184,994,425	3,497,522	188,491,947
34				
35 Rate Base:				
36 Electric Plant In Service	19,643,024,026	5,550,442,483	(7,207,665)	5,543,234,819
37 Plant Held for Future Use	(1)	(0)	-	(0)
38 Misc Deferred Debits	199,791,016	32,822,514	(12,688,806)	20,133,708
39 Elec Plant Acq Adj	69,085,936	18,568,147	-	18,568,147
40 Nuclear Fuel	-	-	-	-
41 Prepayments	40,665,612	12,200,450	569	12,201,019
42 Fuel Stock	163,868,998	41,007,391	349	41,007,740
43 Material & Supplies	166,165,361	49,318,208	1,365	49,319,573
44 Working Capital	46,730,027	12,866,739	(282,703)	12,584,036
45 Weatherization Loans	14,588,989	(696)	(0)	(696)
46 Misc Rate Base	4,314,182	1,206,251	-	1,206,251
47				
48 Total Electric Plant:	20,348,234,146	5,718,431,486	-	5,718,431,486
49				
50 Rate Base Deductions:				
51 Accum Prov For Deprec	(6,893,735,360)	(2,041,423,829)	255,594	(2,041,168,235)
52 Accum Prov For Amort	(474,413,197)	(141,099,147)	(5,999)	(141,105,146)
53 Accum Def Income Tax	(2,072,535,947)	(548,748,369)	(2,256,282)	(551,004,650)
54 Unamortized ITC	(6,481,996)	(4,172,305)	-	(4,172,305)
55 Customer Adv For Const	(18,748,968)	(3,499,244)	-	(3,499,244)
56 Customer Service Deposits	-	-	-	-
57 Misc Rate Base Deductions	(80,990,630)	(21,181,866)	(630)	(21,182,496)
58				
59 Total Rate Base Deductions	(9,546,906,098)	(2,760,124,760)	(2,007,316)	(2,762,132,076)
60				
61 Total Rate Base:	10,801,328,048	2,958,306,726	(22,184,206)	2,936,122,520
62				
63 Return on Rate Base	6.792%	6.253%	0.166%	6.420%
64				
65 Return on Equity	7.569%	6.517%	0.347%	6.865%
66				
67 TAX CALCULATION:				
68 Operating Revenue		228,225,751	5,976,831	234,202,582
69 Other Deductions		-	-	-
70 Interest (AFUDC)		-	-	-
71 Interest		85,799,770	(578,227)	85,221,543
72 Schedule "M" Additions		252,518,382	1,705	252,520,086
73 Schedule "M" Deductions		291,319,775	(1,779,715)	289,540,060
74 Income Before Tax		103,624,588	3,336,477	111,961,065
75				
76 State Income Taxes		4,470,103	368,025	4,838,128
77 Taxable Income		99,154,485	7,968,452	107,122,937
78				
79 Federal Income Taxes + Other		20,969,445	2,788,958	23,758,403
APPROXIMATE REVISED PROTOCOL PRICE CHANGE		112,628,901	(9,910,923)	102,717,977

**PacifiCorp**  
**Normalized Results of Operations**  
**Tab 12 Adjustment Summary**  
**Twelve Months Ending Dec 31, 2010**

Exhibit PPL/707  
Dalley/4

	12.1	12.2	12.3	12.4	12.5	12.6	12.7	
	<b>Total Adjustments</b>	<b>Allocation Factors</b>	<b>Cost of Capital and Capital Structure</b>	<b>Rate Base</b>	<b>Insurance Low Claims Bonus</b>	<b>Workers Compensation Expense</b>	<b>FAS 112 (Post-Employment Benefits)</b>	<b>401(k) Expense</b>
1 Operating Revenues:								
2 General Business Revenues	-	-	-	-	-	-	-	-
3 Interdepartmental	-	-	-	-	-	-	-	-
4 Special Sales	(15,270,140)	-	-	-	-	-	-	-
5 Other Operating Revenues	55	55	-	-	-	-	-	-
6 Total Operating Revenues	(15,270,085)	55	-	-	-	-	-	-
7								
8 Operating Expenses:								
9 Steam Production	(1,390,787)	5,606	-	-	-	-	-	-
10 Nuclear Production	-	-	-	-	-	-	-	-
11 Hydro Production	-	-	-	-	-	-	-	-
12 Other Power Supply	(13,572,680)	(66,469)	8,273	11,298	-	-	-	-
13 Transmission	1,295,810	-	-	-	-	-	-	-
14 Distribution	-	-	-	-	-	-	-	-
15 Customer Accounting	-	-	-	-	-	-	-	-
16 Customer Service & Info	-	-	-	-	-	-	-	-
17 Sales	-	-	-	-	-	-	-	-
18 Administrative & General	(7,381,167)	3,394	-	-	(122,925)	(366,510)	(226,221)	(1,865,575)
19								
20 Total O&M Expenses	(21,048,823)	(57,469)	8,273	11,298	(122,925)	(366,510)	(226,221)	(1,865,575)
21								
22 Depreciation	(200,868)	252	-	(33,815)	-	-	-	-
23 Amortization	614	614	-	-	-	-	-	-
24 Taxes Other Than Income	2,156	2,156	-	-	-	-	-	-
25 Income Taxes - Federal	2,788,958	46,591	(24,657)	15,691	40,958	122,118	75,375	621,595
26 Income Taxes - State	368,025	(78,355)	(3,487)	2,897	5,934	17,693	10,921	90,059
27 Income Taxes - Def Net	(677,674)	(1,888)	-	-	-	-	-	-
28 Investment Tax Credit Adj	-	-	-	-	-	-	-	-
29 Misc Revenue & Expense	4	4	-	-	-	-	-	-
30								
31 Total Operating Expenses:	(18,767,607)	(88,095)	(19,871)	(3,928)	(76,033)	(226,699)	(139,925)	(1,153,920)
32								
33 Operating Rev For Return:	3,497,522	88,150	19,871	3,928	76,033	226,699	139,925	1,153,920
34								
35 Rate Base:								
36 Electric Plant In Service	(7,207,665)	32,919	-	(933,488)	-	-	-	-
37 Plant Held for Future Use	-	-	-	-	-	-	-	-
38 Misc Deferred Debits	(12,688,806)	422	-	-	-	-	-	-
39 Elec Plant Acq Adj	-	-	-	-	-	-	-	-
40 Nuclear Fuel	-	-	-	-	-	-	-	-
41 Prepayments	569	569	-	-	-	-	-	-
42 Fuel Stock	349	349	-	-	-	-	-	-
43 Material & Supplies	1,365	1,365	-	-	-	-	-	-
44 Working Capital	(282,703)	(746)	(396)	262	(1,071)	(3,192)	(1,970)	(16,250)
45 Weatherization Loans	(0)	(0)	-	-	-	-	-	-
46 Misc Rate Base	-	-	-	-	-	-	-	-
47								
48 Total Electric Plant:	(20,176,890)	34,878	(396)	(933,226)	(1,071)	(3,192)	(1,970)	(16,250)
49								
50 Rate Base Deductions:								
51 Accum Prov For Deprec	255,594	(10,742)	-	64,614	-	-	-	-
52 Accum Prov For Amort	(5,999)	(5,999)	-	-	-	-	-	-
53 Accum Def Income Tax	(2,256,282)	(1,692)	-	-	-	-	-	-
54 Unamortized ITC	-	-	-	-	-	-	-	-
55 Customer Adv For Const	-	-	-	-	-	-	-	-
56 Customer Service Deposits	-	-	-	-	-	-	-	-
57 Misc Rate Base Deductions	(630)	(630)	-	-	-	-	-	-
58								
59 Total Rate Base Deductions	(2,007,316)	(19,063)	-	64,614	-	-	-	-
60								
61 Total Rate Base:	(22,184,206)	15,815	(396)	(868,612)	(1,071)	(3,192)	(1,970)	(16,250)
62								
63 Return on Rate Base	0.166%	0.003%	0.001%	0.002%	0.003%	0.008%	0.005%	0.039%
64								
65 Return on Equity	0.347%	0.006%	0.023%	0.004%	0.005%	0.015%	0.009%	0.077%
66								
67 TAX CALCULATION:								
68 Operating Revenue	5,976,831	54,497	(8,273)	22,516	122,925	366,510	226,221	1,865,575
69 Other Deductions	-	-	-	-	-	-	-	-
70 Interest (AFUDC)	-	-	-	-	-	-	-	-
71 Interest	(578,227)	459	65,663	(25,212)	(31)	(93)	(57)	(472)
72 Schedule "M" Additions	1,705	1,705	-	-	-	-	-	-
73 Schedule "M" Deductions	(1,779,715)	982	-	-	-	-	-	-
74 Income Before Tax	8,336,477	54,761	(73,936)	47,728	122,956	366,603	226,278	1,866,046
75								
76 State Income Taxes	368,025	(78,355)	(3,487)	2,897	5,934	17,693	10,921	90,059
77 Taxable Income	7,968,452	133,116	(70,449)	44,830	117,022	348,910	215,356	1,775,987
78								
79 Federal Income Taxes + Other	2,788,958	46,591	(24,657)	15,691	40,958	122,118	75,375	621,595
APPROXIMATE REVISED PROTOCOL PRICE CHANGE	(9,910,923)	(143,981)	(1,003,683)	(129,404)	(126,276)	(376,502)	(232,389)	(1,916,436)
Approximate Price Change Due to:								
Net Power Costs/TAM	(602,513)	(46,254)	-	-	-	-	-	-
Embedded Cost Differential	2,203,205	(16,400)	8,273	11,298	-	-	-	-
General Rate Case	(11,511,615)	(81,326)	(1,011,956)	(140,702)	(126,276)	(376,502)	(232,389)	(1,916,436)

**PacifiCorp**  
**Normalized Results of Operations**  
**Tab 12 Adjustment Summary**  
**Twelve Months Ending Dec 31, 2010**

Exhibit PPL/707  
 Dalley/5

	12.8	12.9	12.10	12.11	12.12	12.13	12.14	12.15
	Challenge Grants	Transition Plan - Oregon Regulatory Asset	MEHC CIC Severance Regulatory Asset	Grid West Regulatory Asset	Wind Interconnection Rate Base	Other Wind Plant Additions	August 2009 - Net Power Cost Update	Embedded Cost Differential
1 Operating Revenues:								
2 General Business Revenues	-	-	-	-	-	-	-	-
3 Interdepartmental	-	-	-	-	-	-	-	-
4 Special Sales	-	-	-	-	-	-	(15,270,140)	-
5 Other Operating Revenues	-	-	-	-	-	-	-	-
6 Total Operating Revenues	-	-	-	-	-	-	(15,270,140)	-
7								
8 Operating Expenses:								
9 Steam Production	-	-	-	-	-	-	(1,396,393)	-
10 Nuclear Production	-	-	-	-	-	-	-	-
11 Hydro Production	-	-	-	-	-	-	-	-
12 Other Power Supply	-	-	-	-	-	24,167	(14,782,211)	1,232,262
13 Transmission	-	-	-	-	-	-	1,295,810	-
14 Distribution	-	-	-	-	-	-	-	-
15 Customer Accounting	-	-	-	-	-	-	-	-
16 Customer Service & Info	-	-	-	-	-	-	-	-
17 Sales	-	-	-	-	-	-	-	-
18 Administrative & General	(58,280)	(2,274,947)	(2,125,400)	(344,703)	-	-	-	-
19								
20 Total O&M Expenses	(58,280)	(2,274,947)	(2,125,400)	(344,703)	-	24,167	(14,882,793)	1,232,262
21								
22 Depreciation	-	-	-	-	(91,032)	(76,273)	-	-
23 Amortization	-	-	-	-	-	-	-	-
24 Taxes Other Than Income	-	-	-	-	-	-	-	-
25 Income Taxes - Federal	19,418	873,288	1,465,648	5,374	71,660	34,519	(154,153)	(424,467)
26 Income Taxes - State	2,813	49,690	212,345	306	10,589	6,339	59,598	(19,318)
27 Income Taxes - Def Net	-	-	(806,610)	130,824	-	-	-	-
28 Investment Tax Credit Adj.	-	-	-	-	-	-	-	-
29 Misc Revenue & Expense	-	-	-	-	-	-	-	-
30								
31 Total Operating Expenses:	(36,048)	(1,351,969)	(1,254,017)	(208,199)	(8,783)	(11,247)	(14,977,349)	788,477
32								
33 Operating Rev For Return:	36,048	1,351,969	1,254,017	208,199	8,783	11,247	(292,792)	(788,477)
34								
35 Rate Base:								
36 Electric Plant In Service	-	-	-	-	(4,423,967)	(1,883,129)	-	-
37 Plant Held for Future Use	-	-	-	-	-	-	-	-
38 Misc Deferred Debits	-	(8,108,022)	(3,719,449)	(861,756)	-	-	-	-
39 Elec Plant Acq Adj	-	-	-	-	-	-	-	-
40 Nuclear Fuel	-	-	-	-	-	-	-	-
41 Prepayments	-	-	-	-	-	-	-	-
42 Fuel Stock	-	-	-	-	-	-	-	-
43 Material & Supplies	-	-	-	-	-	-	-	-
44 Working Capital	(508)	(19,039)	(6,300)	(4,774)	1,158	575	(224,202)	(6,249)
45 Weatherization Loans	-	-	-	-	-	-	-	-
46 Misc Rate Base	-	-	-	-	-	-	-	-
47								
48 Total Electric Plant:	(508)	(8,127,061)	(3,725,750)	(866,531)	(4,422,809)	(1,882,554)	(224,202)	(6,249)
49								
50 Rate Base Deductions:								
51 Accum Prov For Deprec	-	-	-	-	140,341	61,380	-	-
52 Accum Prov For Amort	-	-	-	-	-	-	-	-
53 Accum Def Income Tax	-	(1,170,062)	(1,411,568)	327,041	-	-	-	-
54 Unamortized ITC	-	-	-	-	-	-	-	-
55 Customer Adv For Const	-	-	-	-	-	-	-	-
56 Customer Service Deposits	-	-	-	-	-	-	-	-
57 Misc Rate Base Deductions	-	-	-	-	-	-	-	-
58								
59 Total Rate Base Deductions	-	(1,170,062)	(1,411,568)	327,041	140,341	61,380	-	-
60								
61 Total Rate Base:	(508)	(9,297,123)	(5,137,318)	(539,490)	(4,282,467)	(1,821,173)	(224,202)	(6,249)
62								
63 Return on Rate Base	0.001%	0.066%	0.054%	0.008%	0.010%	0.004%	-0.009%	-0.027%
64								
65 Return on Equity	0.002%	0.129%	0.105%	0.016%	0.019%	0.009%	-0.019%	-0.053%
66								
67 TAX CALCULATION:								
68 Operating Revenue	58,280	2,274,947	2,125,400	344,703	91,032	52,106	(387,347)	(1,232,262)
69 Other Deductions	-	-	-	-	-	-	-	-
70 Interest (AFUDC)	-	-	-	-	-	-	-	-
71 Interest	(15)	(269,851)	(149,112)	(15,659)	(124,299)	(52,860)	(6,508)	(181)
72 Schedule "M" Additions	-	-	-	-	-	-	-	-
73 Schedule "M" Deductions	-	-	(2,125,400)	344,703	-	-	-	-
74 Income Before Tax	58,295	2,544,798	4,399,911	15,659	215,332	104,966	(380,639)	(1,232,080)
75								
76 State Income Taxes	2,813	49,690	212,345	306	10,589	6,339	59,598	(19,318)
77 Taxable Income	55,481	2,495,108	4,187,566	15,353	204,743	98,627	(440,437)	(1,212,763)
78								
79 Federal Income Taxes + Other	19,418	873,288	1,465,648	5,374	71,660	34,519	(154,153)	(424,467)
APPROXIMATE REVISED PROTOCOL PRICE CHANGE	(59,869)	(3,557,983)	(2,806,986)	(421,688)	(620,436)	(276,310)	453,967	1,307,051
Approximate Price Change Due to:								
Net Power Costs/TAM							(556,258)	
Embedded Cost Differential						24,167	943,605	1,232,262
General Rate Case	(59,869)	(3,557,983)	(2,806,986)	(421,688)	(620,436)	(300,476)	66,620	74,790



Docket No. UE-210  
Exhibit PPL/708  
Witness: R. Bryce Dalley

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

---

**Exhibit Accompanying Reply Testimony of R. Bryce Dalley**

**Oregon Results of Operations  
December 2010**

**August 2009**



Docket No. UE-210  
Exhibit PPL/708  
Witness: R. Bryce Dalley

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

---

**Exhibit Accompanying Reply Testimony of R. Bryce Dalley**

**Oregon Results of Operations  
December 2010**

**August 2009**

PacifiCorp  
OREGON

Normalized Results of Operations - REVISED PROTOCOL  
Twelve Months Ending Dec 31, 2010

	(1)	(2)	(3)	(4)	(5)	(6)
		(3) - (1)	Ref. Page 1.1	TAM	GRC	(3) + (4) + (5)
	NPC-Related Results	Non-NPC Related Results	Total Adjusted Results	NPC-Related Under Recovery	Requested Non-NPC Related Price Change	Total Normalized Results with Price Change
1 Operating Revenues:						
2 General Business Revenues	252,395,751	696,945,552	949,341,303	19,969,132	82,748,845	1,052,059,280
3 Interdepartmental	-	-	-	-	-	-
4 Special Sales	185,483,438	963,190	186,446,628	-	-	186,446,628
5 Other Operating Revenues	-	42,876,160	42,876,160	-	-	42,876,160
6 Total Operating Revenues	437,879,189	740,784,902	1,178,664,091	19,969,132	82,748,845	1,281,382,068
7						
8 Operating Expenses:						
9 Steam Production	169,775,591	80,783,699	250,559,290	-	-	250,559,290
10 Nuclear Production	-	-	-	-	-	-
11 Hydro Production	-	9,911,805	9,911,805	-	-	9,911,805
12 Other Power Supply	249,222,139	12,213,053	261,435,192	-	-	261,435,192
13 Transmission	38,850,591	13,705,242	52,555,833	-	-	52,555,833
14 Distribution	-	70,710,593	70,710,593	-	-	70,710,593
15 Customer Accounting	-	31,710,902	31,710,902	-	545,609	32,256,512
16 Customer Service & Info	-	3,695,469	3,695,469	-	-	3,695,469
17 Sales	-	-	-	-	-	-
18 Administrative & General	-	49,670,470	49,670,470	-	-	49,670,470
19						
20 Total O&M Expenses	457,848,321	272,401,234	730,249,555	-	-	730,249,555
21						
22 Depreciation	-	147,845,235	147,845,235	-	-	147,845,235
23 Amortization	-	16,476,351	16,476,351	-	-	16,476,351
24 Taxes Other Than Income	-	51,966,873	51,966,873	-	2,376,074	54,342,947
25 Income Taxes - Federal	(6,671,887)	30,430,290	23,758,403	6,671,887	26,671,053	57,101,342
26 Income Taxes - State	(906,599)	5,744,726	4,838,128	906,599	3,624,153	9,368,880
27 Income Taxes - Def Net	-	17,114,105	17,114,105	-	-	17,114,105
28 Investment Tax Credit Adj.	-	-	-	-	-	-
29 Misc Revenue & Expense	-	(2,076,505)	(2,076,505)	-	-	(2,076,505)
30						
31 Total Operating Expenses:	450,269,836	539,902,308	990,172,144	7,578,485	33,216,889	1,030,967,519
32						
33 Operating Rev For Return:	(12,390,647)	200,882,594	188,491,947	12,390,647	49,531,955	250,414,549
34						
35 Rate Base:						
36 Electric Plant In Service	-	5,543,234,819	5,543,234,819	-	-	5,543,234,819
37 Plant Held for Future Use	-	(0)	(0)	-	-	(0)
38 Misc Deferred Debits	-	20,133,708	20,133,708	-	-	20,133,708
39 Elec Plant Acq Adj	-	18,568,147	18,568,147	-	-	18,568,147
40 Nuclear Fuel	-	-	-	-	-	-
41 Prepayments	-	12,201,019	12,201,019	-	-	12,201,019
42 Fuel Stock	-	41,007,740	41,007,740	-	-	41,007,740
43 Material & Supplies	-	49,319,573	49,319,573	-	-	49,319,573
44 Working Capital	-	12,584,036	12,584,036	-	-	12,584,036
45 Weatherization Loans	-	(696)	(696)	-	-	(696)
46 Misc Rate Base	-	1,206,251	1,206,251	-	-	1,206,251
47						
48 Total Electric Plant:	-	5,698,254,596	5,698,254,596	-	-	5,698,254,596
49						
50 Rate Base Deductions:						
51 Accum Prov For Deprec	-	(2,041,168,235)	(2,041,168,235)	-	-	(2,041,168,235)
52 Accum Prov For Amort	-	(141,105,146)	(141,105,146)	-	-	(141,105,146)
53 Accum Def Income Tax	-	(551,004,650)	(551,004,650)	-	-	(551,004,650)
54 Unamortized ITC	-	(4,172,305)	(4,172,305)	-	-	(4,172,305)
55 Customer Adv For Const	-	(3,499,244)	(3,499,244)	-	-	(3,499,244)
56 Customer Service Deposits	-	-	-	-	-	-
57 Misc Rate Base Deductions	-	(21,182,496)	(21,182,496)	-	-	(21,182,496)
58						
59 Total Rate Base Deductions	-	(2,762,132,076)	(2,762,132,076)	-	-	(2,762,132,076)
60						
61 Total Rate Base:	-	2,936,122,520	2,936,122,520	-	-	2,936,122,520
62						
63 Return on Rate Base			6.420%			8.529%
64						
65 Return on Equity			6.865%			11.000%

PacifiCorp  
OREGON

Normalized Results of Operations - REVISED PROTOCOL  
Twelve Months Ending Dec 31, 2010

	(1) Total Adjusted Results	(2) Price Change	(3) Results with Price Change
1 Operating Revenues:			
2 General Business Revenues	949,341,303	102,717,977	1,052,059,280
3 Interdepartmental	-		
4 Special Sales	186,446,628		
5 Other Operating Revenues	42,876,160		
6 Total Operating Revenues	<u>1,178,664,091</u>		
7			
8 Operating Expenses:			
9 Steam Production	250,559,290		
10 Nuclear Production	-		
11 Hydro Production	9,911,805		
12 Other Power Supply	261,435,192		
13 Transmission	52,555,833		
14 Distribution	70,710,593		
15 Customer Accounting	31,710,902	545,609	32,256,512
16 Customer Service & Info	3,695,469		
17 Sales	-		
18 Administrative & General	49,670,470		
19			
20 Total O&M Expenses	730,249,555		
21			
22 Depreciation	147,845,235		
23 Amortization	16,476,351		
24 Taxes Other Than Income	51,966,873	2,376,074	54,342,947
25 Income Taxes - Federal	23,758,403	33,342,940	57,101,342
26 Income Taxes - State	4,838,128	4,530,752	9,368,880
27 Income Taxes - Def Net	17,114,105		
28 Investment Tax Credit Adj.	-		
29 Misc Revenue & Expense	(2,076,505)		
30			
31 Total Operating Expenses:	990,172,144	40,795,375	1,030,967,519
32			
33 Operating Rev For Return:	<u>188,491,947</u>	<u>61,922,602</u>	<u>250,414,549</u>
34			
35 Rate Base:			
36 Electric Plant In Service	5,543,234,819		
37 Plant Held for Future Use	(0)		
38 Misc Deferred Debits	20,133,708		
39 Elec Plant Acq Adj	18,568,147		
40 Nuclear Fuel	-		
41 Prepayments	12,201,019		
42 Fuel Stock	41,007,740		
43 Material & Supplies	49,319,573		
44 Working Capital	12,584,036		
45 Weatherization Loans	(696)		
46 Misc Rate Base	1,206,251		
47			
48 Total Electric Plant:	5,698,254,596	-	5,698,254,596
49			
50 Rate Base Deductions:			
51 Accum Prov For Deprec	(2,041,168,235)		
52 Accum Prov For Amort	(141,105,146)		
53 Accum Def Income Tax	(551,004,650)		
54 Unamortized ITC	(4,172,305)		
55 Customer Adv For Const	(3,499,244)		
56 Customer Service Deposits	-		
57 Misc Rate Base Deductions	(21,182,496)		
58			
59 Total Rate Base Deductions	(2,762,132,076)	-	(2,762,132,076)
60			
61 Total Rate Base:	<u>2,936,122,520</u>	<u>-</u>	<u>2,936,122,520</u>
62			
63 Return on Rate Base	6.420%		8.529%
64			
65 Return on Equity	6.865%		11.000%
66			
67 TAX CALCULATION:			
68 Operating Revenue	234,202,582	99,796,294	333,998,876
69 Other Deductions			
70 Interest (AFUDC)	-	-	-
71 Interest	85,221,543	-	85,221,543
72 Schedule "M" Additions	252,520,086	-	252,520,086
73 Schedule "M" Deductions	289,540,060	-	289,540,060
74 Income Before Tax	111,961,065	99,796,294	211,757,359
75			
76 State Income Taxes	4,838,128	4,530,752	9,368,880
77 Taxable Income	<u>107,122,937</u>	<u>95,265,542</u>	<u>202,388,479</u>
78			
79 Federal Income Taxes + Other	<u>23,758,403</u>	<u>33,342,940</u>	<u>57,101,342</u>

PacifiCorp  
OREGON

Normalized Results of Operations - REVISED PROTOCOL  
Twelve Months Ending Dec 31, 2010

Net Rate Base	\$ 2,936,122,520	Ref. Page 1.1
Return on Rate Base Requested	<u>8.529%</u>	Ref. Page 2.1
Revenues Required to Earn Requested Return	250,414,549	
Less Current Operating Revenues	<u>(188,491,947)</u>	
Increase to Current Revenues	61,922,602	
Net to Gross Bump-up	<u>165.88%</u>	
Price Change Required for Requested Return	<u>\$ 102,717,977</u>	
Requested Price Change	\$ 102,717,977	
Uncollectible Percent	<u>0.531%</u>	Ref. Page 1.3
Increased Uncollectible Expense	<u>\$ 545,609</u>	
Requested Price Change	\$ 102,717,977	
Franchise Tax	2.250%	Ref. Page 1.3
Revenue Tax	0.000%	Ref. Page 1.3
Resource Supplier Tax	0.063%	Ref. Page 1.3
Gross Receipts	<u>0.000%</u>	Ref. Page 1.3
Increase Taxes Other Than Income	<u>\$ 2,376,074</u>	
Requested Price Change	\$ 102,717,977	
Uncollectible Expense	(545,609)	
Taxes Other Than Income	<u>(2,376,074)</u>	
Income Before Taxes	<u>\$ 99,796,294</u>	
State Effective Tax Rate	<u>4.54%</u>	Ref. Page 2.1
State Income Taxes	<u>\$ 4,530,752</u>	
Taxable Income	\$ 95,265,542	
Federal Income Tax Rate	<u>35.00%</u>	Ref. Page 2.1
Federal Income Taxes	<u>\$ 33,342,940</u>	
Operating Income	100.000%	
Net Operating Income	<u>60.284%</u>	Ref. Page 1.3
Net to Gross Bump-Up	<u>165.88%</u>	

**PacifiCorp**  
**OREGON**  
**Normalized Results of Operations - REVISED PROTOCOL**  
**Twelve Months Ending Dec 31, 2010**

Operating Revenue	100.000%
Operating Deductions	
Uncollectible Accounts	0.531% See Note (1) Below
Taxes Other - Franchise Tax	2.250%
Taxes Other - Revenue Tax	0.000%
Taxes Other - Resource Supplier	0.063%
Taxes Other - Gross Receipts	<u>0.000%</u>
Sub-Total	97.156%
State Income Tax @ 4.54%	<u>4.411%</u>
Sub-Total	92.745%
Federal Income Tax @ 35.00%	<u>32.461%</u>
Net Operating Income	<u><u>60.284%</u></u>

(1) Uncollectible Accounts =	<u>5,042,637</u> 949,341,303	Pg 2.12, Oregon Situs from Account 904 Pg. 2.2, General Business Revenues
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**PacifiCorp**  
**Normalized Results of Operations**  
**Adjustment Summary**  
**Twelve Months Ending Dec 31, 2010**

	Total Company Filed Results December 2010	Oregon Allocated Filed Results December 2010	Tab 12 - Reply Adjustments	Oregon Allocated Reply Results December 2010
1 Operating Revenues:				
2 General Business Revenues	3,553,650,952	949,341,303	-	949,341,303
3 Interdepartmental	-	-	-	-
4 Special Sales	755,003,589	201,716,768	(15,270,140)	186,446,628
5 Other Operating Revenues	185,918,747	42,876,105	55	42,876,160
6 Total Operating Revenues	4,494,573,288	1,193,934,176	(15,270,085)	1,178,664,091
7				
8 Operating Expenses:				
9 Steam Production	984,803,361	251,950,077	(1,390,787)	250,559,290
10 Nuclear Production	-	-	-	-
11 Hydro Production	36,878,549	9,911,805	-	9,911,805
12 Other Power Supply	1,123,036,510	275,007,872	(13,572,680)	261,435,192
13 Transmission	190,741,324	51,260,023	1,295,810	52,555,833
14 Distribution	218,255,971	70,710,593	-	70,710,593
15 Customer Accounting	94,717,057	31,710,902	-	31,710,902
16 Customer Service & Info	34,210,049	3,695,469	-	3,695,469
17 Sales	-	-	-	-
18 Administrative & General	186,328,399	57,051,637	(7,381,167)	49,670,470
19				
20 Total O&M Expenses	2,868,971,219	751,298,378	(21,048,823)	730,249,555
21				
22 Depreciation	515,917,994	148,046,103	(200,868)	147,845,235
23 Amortization	66,908,040	16,475,737	614	16,476,351
24 Taxes Other Than Income	130,014,866	51,964,717	2,156	51,966,873
25 Income Taxes - Federal	64,951,362	20,969,445	2,788,958	23,758,403
26 Income Taxes - State	14,798,811	4,470,103	368,025	4,838,128
27 Income Taxes - Def Net	110,991,798	17,791,779	(677,674)	17,114,105
28 Investment Tax Credit Adj.	(1,874,204)	-	-	-
29 Misc Revenue & Expense	(9,703,584)	(2,076,510)	4	(2,076,505)
30				
31 Total Operating Expenses:	3,760,976,302	1,008,939,751	(18,767,607)	990,172,144
32				
33 Operating Rev For Return:	733,596,986	184,994,425	3,497,522	188,491,947
34				
35 Rate Base:				
36 Electric Plant In Service	19,643,024,026	5,550,442,483	(7,207,665)	5,543,234,819
37 Plant Held for Future Use	(1)	(0)	-	(0)
38 Misc Deferred Debits	199,791,016	32,822,514	(12,688,806)	20,133,708
39 Elec Plant Acq Adj	69,085,936	18,568,147	-	18,568,147
40 Nuclear Fuel	-	-	-	-
41 Prepayments	40,665,612	12,200,450	569	12,201,019
42 Fuel Stock	163,868,998	41,007,391	349	41,007,740
43 Material & Supplies	166,165,361	49,318,208	1,365	49,319,573
44 Working Capital	46,730,027	12,866,739	(282,703)	12,584,036
45 Weatherization Loans	14,588,989	(696)	(0)	(696)
46 Misc Rate Base	4,314,182	1,206,251	-	1,206,251
47				
48 Total Electric Plant:	20,348,234,146	5,718,431,486	-	5,718,431,486
49				
50 Rate Base Deductions:				
51 Accum Prov For Deprec	(6,893,735,360)	(2,041,423,829)	255,594	(2,041,168,235)
52 Accum Prov For Amort	(474,413,197)	(141,099,147)	(5,999)	(141,105,146)
53 Accum Def Income Tax	(2,072,535,947)	(548,748,369)	(2,256,282)	(551,004,650)
54 Unamortized ITC	(6,481,996)	(4,172,305)	-	(4,172,305)
55 Customer Adv For Const	(18,748,968)	(3,499,244)	-	(3,499,244)
56 Customer Service Deposits	-	-	-	-
57 Misc Rate Base Deductions	(80,990,630)	(21,181,866)	(630)	(21,182,496)
58				
59 Total Rate Base Deductions	(9,546,906,098)	(2,760,124,760)	(2,007,316)	(2,762,132,076)
60				
61 Total Rate Base:	10,801,328,048	2,958,306,726	(22,184,206)	2,936,122,520
62				
63 Return on Rate Base	6.792%	6.253%	0.166%	6.420%
64				
65 Return on Equity	7.569%	6.517%	0.347%	6.865%
66				
67 TAX CALCULATION:				
68 Operating Revenue		228,225,751	5,976,831	234,202,582
69 Other Deductions		-	-	-
70 Interest (AFUDC)		-	-	-
71 Interest		85,799,770	(578,227)	85,221,543
72 Schedule "M" Additions		252,518,382	1,705	252,520,087
73 Schedule "M" Deductions		291,319,775	(1,779,715)	289,540,060
74 Income Before Tax		103,624,588	8,336,477	111,961,065
75				
76 State Income Taxes		4,470,103	368,025	4,838,128
77 Taxable Income		99,154,485	7,968,452	107,122,937
78				
79 Federal Income Taxes + Other		20,969,445	2,788,958	23,758,403
APPROXIMATE REVISED PROTOCOL PRICE CHANGE		112,628,901	(9,910,923)	102,717,977

**PacifiCorp**  
**RESULTS OF OPERATIONS**

USER SPECIFIC INFORMATION

STATE:	OREGON
PERIOD:	TWELVE MONTHS ENDING DEC 31, 2010
FILE:	OR JAM Dec 2010 GRC - REPLY
PREPARED BY:	Revenue Requirement Department
DATE:	8/25/2009
TIME:	10:00:10 AM
TYPE OF RATE BASE:	Thirteen Month Average
ALLOCATION METHOD:	<b>REVISED PROTOCOL</b>
FERC JURISDICTION:	Separate Jurisdiction
8 OR 12 CP:	12 Coincidental Peaks
DEMAND %	75% Demand
ENERGY %	25% Energy

TAX INFORMATION

<u>TAX RATE ASSUMPTIONS:</u>	<u>TAX RATE</u>
FEDERAL RATE	35.00%
STATE EFFECTIVE RATE	4.54%
TAX GROSS UP FACTOR	1.659
FEDERAL/STATE COMBINED RATE	37.95%

CAPITAL STRUCTURE INFORMATION

	<u>CAPITAL STRUCTURE</u>	<u>EMBEDDED COST</u>	<u>WEIGHTED COST</u>
DEBT	48.70%	5.96%	2.90%
PREFERRED	0.30%	5.41%	0.02%
COMMON	51.00%	11.00%	5.61%
	<u>100.00%</u>		<u>8.53%</u>

OTHER INFORMATION

For information and support regarding capital structure and cost of debt, see the testimony of Mr. Bruce Williams.  
For information and support regarding return on common equity, see the testimony of Mr. Sam Hadaway.

REVISED PROTOCOL  
Thirteen Month Average

## RESULTS OF OPERATIONS SUMMARY

Description of Account Summary:	Ref	DECEMBER 2010 Original Filing		DECEMBER 2010 Reply Results	
		TOTAL	OREGON	TOTAL	OREGON
1 Operating Revenues					
2     General Business Revenues	2.3	3,553,650,952	949,341,303	3,553,650,952	949,341,303
3     Interdepartmental	2.3	0	0	0	0
4     Special Sales	2.3	755,003,589	201,716,768	698,188,446	186,446,628
5     Other Operating Revenues	2.4	185,918,747	42,876,105	185,918,747	42,876,160
6     Total Operating Revenues	2.4	4,494,573,288	1,193,934,176	4,437,758,145	1,178,664,091
7					
8 Operating Expenses:					
9     Steam Production	2.5	984,803,361	251,950,077	979,214,271	250,559,290
10     Nuclear Production	2.6	0	0	0	0
11     Hydro Production	2.7	36,878,549	9,911,805	36,878,549	9,911,805
12     Other Power Supply	2.9	1,123,036,510	275,007,872	1,061,844,380	261,435,192
13     Transmission	2.10	190,741,324	51,260,023	195,562,060	52,555,833
14     Distribution	2.12	218,255,971	70,710,593	218,255,971	70,710,593
15     Customer Accounting	2.12	94,717,057	31,710,902	94,717,057	31,710,902
16     Customer Service & Infor	2.13	34,210,049	3,695,469	34,210,049	3,695,469
17     Sales	2.13	0	0	0	0
18     Administrative & General	2.14	186,328,399	57,051,637	166,846,953	49,670,470
19					
20     Total O & M Expenses	2.14	2,868,971,219	751,298,378	2,787,529,290	730,249,555
21					
22     Depreciation	2.16	515,917,994	148,046,103	515,169,709	147,845,235
23     Amortization	2.17	66,908,040	16,475,737	66,908,040	16,476,351
24     Taxes Other Than Income	2.17	130,014,866	51,964,717	130,014,866	51,966,873
25     Income Taxes - Federal	2.20	64,951,362	20,969,445	76,293,804	23,758,403
26     Income Taxes - State	2.20	14,798,811	4,470,103	16,298,694	4,838,128
27     Income Taxes - Def Net	2.19	110,991,798	17,791,779	108,268,235	17,114,105
28     Investment Tax Credit Adj.	2.17	(1,874,204)	0	(1,874,204)	0
29     Misc Revenue & Expense	2.4	(9,703,584)	(2,076,510)	(9,703,584)	(2,076,505)
30					
31     Total Operating Expenses	2.20	3,760,976,302	1,008,939,751	3,688,904,850	990,172,144
32					
33 Operating Revenue for Return		733,596,986	184,994,425	748,853,295	188,491,947
34					
35 Rate Base:					
36     Electric Plant in Service	2.30	19,643,024,026	5,550,442,483	19,616,084,429	5,543,234,819
37     Plant Held for Future Use	2.31	(1)	(0)	(1)	(0)
38     Misc Deferred Debits	2.33	199,791,016	32,822,514	177,659,062	20,133,708
39     Elec Plant Acq Adj	2.31	69,085,936	18,568,147	69,085,936	18,568,147
40     Nuclear Fuel	2.31	0	0	0	0
41     Prepayments	2.32	40,665,612	12,200,450	40,665,612	12,201,019
42     Fuel Stock	2.32	163,868,998	41,007,391	163,868,998	41,007,740
43     Material & Supplies	2.32	166,165,361	49,318,208	166,165,361	49,319,573
44     Working Capital	2.33	46,730,027	12,866,739	45,741,716	12,584,036
45     Weatherization Loans	2.31	14,588,989	(696)	14,588,989	(696)
46     Miscellaneous Rate Base	2.34	4,314,182	1,206,251	4,314,182	1,206,251
47					
48     Total Electric Plant		20,348,234,146	5,718,431,486	20,298,174,284	5,698,254,596
49					
50 Rate Base Deductions:					
51     Accum Prov For Depr	2.38	(6,893,735,360)	(2,041,423,829)	(6,892,744,441)	(2,041,168,235)
52     Accum Prov For Amort	2.39	(474,413,197)	(141,099,147)	(474,413,197)	(141,105,146)
53     Accum Def Income Taxes	2.35	(2,072,535,947)	(548,748,369)	(2,078,374,146)	(551,004,650)
54     Unamortized ITC	2.35	(6,481,996)	(4,172,305)	(6,481,996)	(4,172,305)
55     Customer Adv for Const	2.34	(18,748,968)	(3,499,244)	(18,748,968)	(3,499,244)
56     Customer Service Deposits	2.34	0	0	0	0
57     Misc. Rate Base Deductions	2.34	(80,990,630)	(21,181,866)	(80,990,630)	(21,182,496)
58					
59     Total Rate Base Deductions		(9,546,906,098)	(2,760,124,760)	(9,551,753,378)	(2,762,132,076)
60					
61 Total Rate Base		10,801,328,048	2,958,306,726	10,746,420,905	2,936,122,520
62					
63 Return on Rate Base		6.792%	6.253%	6.968%	6.420%
64					
65 Return on Equity		7.569%	6.517%	7.940%	6.865%
66 Net Power Costs		1,100,545,209	272,967,396	1,095,399,869	272,364,883
67 100 Basis Points in Equity:					
68     Revenue Requirement Impact		89,127,624	24,410,596	88,328,171	24,132,903
69     Rate Base Decrease		(757,185,756)	(223,882,627)	(732,867,552)	(216,085,841)







REVISED PROTOCOL Thirteen Month Average				DECEMBER 2010 Original Filing		DECEMBER 2010 Reply Results		
FERC ACCT	DESCRIP	BUS FUNC	FACTOR	Ref	TOTAL	OREGON	TOTAL	OREGON
214	500		Operation Supervision & Engineering					
215		P	SG		21,356,608	5,739,991	21,356,608	5,739,991
216		P	SSGCH		1,380,389	379,874	1,380,389	380,069
217				B2	<u>22,736,997</u>	<u>6,119,865</u>	<u>22,736,997</u>	<u>6,120,059</u>
218								
219	501		Fuel Related-Non NPC					
220		P	SE		14,245,212	3,561,573	14,245,212	3,561,573
221		P	SE		-	-	-	-
222		P	SE		-	-	-	-
223		P	SSECT		-	-	-	-
224		P	SSECH		1,757,497	446,484	1,757,497	446,551
225				B2	<u>16,002,709</u>	<u>4,008,057</u>	<u>16,002,709</u>	<u>4,008,124</u>
226								
227	501NPC		Fuel Related-NPC					
228		P	SE		625,282,635	156,332,531	619,447,910	154,873,739
229		P	SE		-	-	-	-
230		P	SE		-	-	-	-
231		P	SSECT		-	-	-	-
232		P	SSECH		54,964,905	13,963,575	55,207,439	14,027,286
233				B2	<u>680,247,540</u>	<u>170,296,106</u>	<u>674,655,349</u>	<u>168,901,025</u>
234								
235			Total Fuel Related		<u>696,250,250</u>	<u>174,304,163</u>	<u>690,658,059</u>	<u>172,909,149</u>
236								
237	502		Steam Expenses					
238		P	SG		33,876,171	9,104,859	33,876,171	9,104,859
239		P	SSGCH		2,987,357	822,101	2,987,357	822,522
240				B2	<u>36,863,528</u>	<u>9,926,961</u>	<u>36,863,528</u>	<u>9,927,382</u>
241								
242	503		Steam From Other Sources-Non-NPC					
243		P	SE		1,303	326	1,303	326
244				B2	<u>1,303</u>	<u>326</u>	<u>1,303</u>	<u>326</u>
245								
246	503NPC		Steam From Other Sources-NPC					
247		P	SE		3,494,899	873,791	3,498,000	874,566
248				B2	<u>3,494,899</u>	<u>873,791</u>	<u>3,498,000</u>	<u>874,566</u>
249								
250	505		Electric Expenses					
251		P	SG		2,894,693	778,003	2,894,693	778,003
252		P	SSGCH		1,497,829	412,193	1,497,829	412,404
253				B2	<u>4,392,522</u>	<u>1,190,196</u>	<u>4,392,522</u>	<u>1,190,407</u>
254								
255	506		Misc. Steam Expense					
256		P	SG		43,539,798	11,702,141	43,539,798	11,702,141
257		P	SE		-	-	-	-
258		P	SSGCH		1,928,578	530,732	1,928,578	531,004
259				B2	<u>45,468,376</u>	<u>12,232,873</u>	<u>45,468,376</u>	<u>12,233,145</u>
260								
261	507		Rents					
262		P	SG		685,858	184,337	685,858	184,337
263		P	SSGCH		6,080	1,673	6,080	1,674
264				B2	<u>691,938</u>	<u>186,010</u>	<u>691,938</u>	<u>186,011</u>
265								
266	510		Maint Supervision & Engineering					
267		P	SG		18,569,334	4,990,858	18,569,334	4,990,858
268		P	SSGCH		1,869,532	514,483	1,869,532	514,747
269				B2	<u>20,438,866</u>	<u>5,505,342</u>	<u>20,438,866</u>	<u>5,505,605</u>
270								
271								
272								
273	511		Maintenance of Structures					
274		P	SG		24,345,886	6,543,416	24,345,886	6,543,416
275		P	SSGCH		1,100,539	302,861	1,100,539	303,016
276				B2	<u>25,446,425</u>	<u>6,846,277</u>	<u>25,446,425</u>	<u>6,846,432</u>
277								
278	512		Maintenance of Boiler Plant					
279		P	SG		80,008,202	21,503,712	80,008,202	21,503,712
280		P	SSGCH		5,824,299	1,602,810	5,824,299	1,603,631
281				B2	<u>85,832,500</u>	<u>23,106,521</u>	<u>85,832,500</u>	<u>23,107,342</u>
282								
283	513		Maintenance of Electric Plant					
284		P	SG		25,528,277	6,861,205	25,528,277	6,861,205
285		P	SSGCH		3,732,120	1,027,056	3,732,120	1,027,582
286				B2	<u>29,260,397</u>	<u>7,888,261</u>	<u>29,260,397</u>	<u>7,888,787</u>
287								
288	514		Maintenance of Misc. Steam Plant					
289		P	SG		9,755,987	2,622,105	9,755,987	2,622,105
290		P	SSGCH		4,169,373	1,147,385	4,169,373	1,147,972
291				B2	<u>13,925,360</u>	<u>3,769,490</u>	<u>13,925,360</u>	<u>3,770,078</u>
292								
293			<b>Total Steam Power Generation</b>	<b>B2</b>	<b><u>984,803,361</u></b>	<b><u>251,950,077</u></b>	<b><u>979,214,271</u></b>	<b><u>250,559,290</u></b>



REVISED PROTOCOL Thirteen Month Average					DECEMBER 2010 Original Filing		DECEMBER 2010 Reply Results	
FERC ACCT	DESCRIP	BUS FUNC	FACTOR	Ref	TOTAL	OREGON	TOTAL	OREGON
357	537	Hydraulic Expenses						
358		P	DGP		-	-	-	-
359		P	SG		3,580,615	962,358	3,580,615	962,358
360		P	SG		397,666	106,880	397,666	106,880
361								
362				B2	<u>3,978,281</u>	<u>1,069,238</u>	<u>3,978,281</u>	<u>1,069,238</u>
363								
364	538	Electric Expenses						
365		P	DGP		-	-	-	-
366		P	SG		-	-	-	-
367		P	SG		-	-	-	-
368								
369				B2	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
370								
371	539	Misc. Hydro Expenses						
372		P	DGP		-	-	-	-
373		P	SG		11,261,488	3,026,737	11,261,488	3,026,737
374		P	SG		5,657,841	1,520,651	5,657,841	1,520,651
375								
376								
377				B2	<u>16,919,329</u>	<u>4,547,388</u>	<u>16,919,329</u>	<u>4,547,388</u>
378								
379	540	Rents (Hydro Generation)						
380		P	DGP		-	-	-	-
381		P	SG		155,264	41,730	155,264	41,730
382		P	SG		9,458	2,542	9,458	2,542
383								
384				B2	<u>164,722</u>	<u>44,272</u>	<u>164,722</u>	<u>44,272</u>
385								
386	541	Maint Supervision & Engineering						
387		P	DGP		-	-	-	-
388		P	SG		-	-	-	-
389		P	SG		-	-	-	-
390								
391				B2	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
392								
393	542	Maintenance of Structures						
394		P	DGP		-	-	-	-
395		P	SG		897,600	241,247	897,600	241,247
396		P	SG		67,746	18,208	67,746	18,208
397								
398				B2	<u>965,346</u>	<u>259,455</u>	<u>965,346</u>	<u>259,455</u>
399								
400								
401								
402								
403	543	Maintenance of Dams & Waterways						
404		P	DGP		-	-	-	-
405		P	SG		877,446	235,830	877,446	235,830
406		P	SG		420,785	113,094	420,785	113,094
407								
408				B2	<u>1,298,231</u>	<u>348,924</u>	<u>1,298,231</u>	<u>348,924</u>
409								
410	544	Maintenance of Electric Plant						
411		P	DGP		-	-	-	-
412		P	SG		1,233,021	331,398	1,233,021	331,398
413		P	SG		901,909	242,405	901,909	242,405
414								
415				B2	<u>2,134,930</u>	<u>573,803</u>	<u>2,134,930</u>	<u>573,803</u>
416								
417	545	Maintenance of Misc. Hydro Plant						
418		P	DGP		-	-	-	-
419		P	SG		1,606,564	431,794	1,606,564	431,794
420		P	SG		779,578	209,526	779,578	209,526
421								
422				B2	<u>2,386,142</u>	<u>641,321</u>	<u>2,386,142</u>	<u>641,321</u>
423								
424								
		<b>Total Hydraulic Power Generation</b>		<b>B2</b>	<b><u>36,878,549</u></b>	<b><u>9,911,805</u></b>	<b><u>36,878,549</u></b>	<b><u>9,911,805</u></b>















REVISED PROTOCOL				DECEMBER 2010		DECEMBER 2010		
Thirteen Month Average				Original Filing		Reply Results		
FERC	BUS							
ACCT	DESCRIP	FUNC	FACTOR	Ref	TOTAL	OREGON	TOTAL	OREGON
846	923	Outside Services						
847		PTD	S		2,615	-	2,615	-
848		CUST	CN		-	-	-	-
849		PTD	SO		10,961,217	3,097,263	10,961,217	3,097,489
850				B2	<u>10,963,832</u>	<u>3,097,263</u>	<u>10,963,832</u>	<u>3,097,489</u>
851								
852	924	Property Insurance						
853		PTD	SO		35,497,167	10,030,277	35,062,167	9,908,085
854				B2	<u>35,497,167</u>	<u>10,030,277</u>	<u>35,062,167</u>	<u>9,908,085</u>
855								
856	925	Injuries & Damages						
857		PTD	SO		8,915,624	2,519,248	8,915,624	2,519,432
858				B2	<u>8,915,624</u>	<u>2,519,248</u>	<u>8,915,624</u>	<u>2,519,432</u>
859								
860	926	Employee Pensions & Benefits						
861		LABOR	S		-	-	-	-
862		CUST	CN		-	-	-	-
863		LABOR	SO		-	-	-	-
864				B2	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
865								
866	927	Franchise Requirements						
867		DMSC	S		-	-	-	-
868		DMSC	SO		-	-	-	-
869				B2	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
870								
871	928	Regulatory Commission Expense						
872		DMSC	S		8,644,967	2,814,219	8,644,967	2,814,219
873		CUST	CN		-	-	-	-
874		DMSC	SO		-	-	-	-
875		FERC	SG		940,372	252,743	940,372	252,743
876				B2	<u>9,585,339</u>	<u>3,066,961</u>	<u>9,585,339</u>	<u>3,066,961</u>
877								
878	929	Duplicate Charges						
879		LABOR	S		-	-	-	-
880		LABOR	SO		(5,040,682)	(1,424,323)	(5,040,682)	(1,424,427)
881				B2	<u>(5,040,682)</u>	<u>(1,424,323)</u>	<u>(5,040,682)</u>	<u>(1,424,427)</u>
882								
883	930	Misc General Expenses						
884		PTD	S		9,811,918	6,483,144	7,192,268	3,863,494
885		CUST	CN		5,413	1,676	5,413	1,676
886		LABOR	SO		12,568,569	3,551,445	(3,858,227)	(1,090,282)
887				B2	<u>22,385,900</u>	<u>10,036,265</u>	<u>3,339,454</u>	<u>2,774,889</u>
888								
889	931	Rents						
890		PTD	S		976,500	966,793	976,500	966,793
891		PTD	SO		5,770,404	1,630,518	5,770,404	1,630,637
892				B2	<u>6,746,904</u>	<u>2,597,311</u>	<u>6,746,904</u>	<u>2,597,430</u>
893								
894	935	Maintenance of General Plant						
895		G	S		33,985	33,985	33,985	33,985
896		CUST	CN		-	-	-	-
897		G	SO		25,636,488	7,243,989	25,636,488	7,244,518
898				B2	<u>25,670,473</u>	<u>7,277,974</u>	<u>25,670,473</u>	<u>7,278,503</u>
899								
900		<b>Total Administrative &amp; General Expense</b>		<b>B2</b>	<b><u>186,328,399</u></b>	<b><u>57,051,637</u></b>	<b><u>166,846,953</u></b>	<b><u>49,670,470</u></b>
901								
902		Summary of A&G Expense by Factor						
903		S			20,822,310	10,298,140	18,202,661	7,678,491
904		SO			164,560,303	46,499,078	147,698,508	41,737,560
905		SG			940,372	252,743	940,372	252,743
906		CN			5,413	1,676	5,413	1,676
907		Total A&G Expense by Factor			<u>186,328,399</u>	<u>57,051,637</u>	<u>166,846,953</u>	<u>49,670,470</u>
908								
909		<b>Total O&amp;M Expense</b>		<b>B2</b>	<b><u>2,868,971,219</u></b>	<b><u>751,298,378</u></b>	<b><u>2,787,529,290</u></b>	<b><u>730,249,555</u></b>













REVISED PROTOCOL					DECEMBER 2010		DECEMBER 2010		
Thirteen Month Average					Original Filing		Reply Results		
FERC	BUS								
ACCT	DESCRIP	FUNC	FACTOR	Ref	TOTAL	OREGON	TOTAL	OREGON	
1229	SCHMDF	Deductions - Flow Through							
1230		SCHMDF	S		-	-	-	-	
1231		SCHMDF	DGP		-	-	-	-	
1232		SCHMDF	DGU		-	-	-	-	
1233				B6	-	-	-	-	
1234	SCHMDP	Deductions - Permanent							
1235		SCHMDP	S		-	-	-	-	
1236		P	SE		274,060	68,520	274,060	68,520	
1237		PTD	SNP		381,063	104,554	381,063	104,559	
1238		SCHMDP	IBT		-	-	-	-	
1239		P	SG		18,776,377	5,046,505	18,776,377	5,046,505	
1240		SCHMDP-SO	SO		13,700,500	3,871,290	13,700,500	3,871,572	
1241				B6	33,132,000	9,090,869	33,132,000	9,091,157	
1242									
1243	SCHMDT	Deductions - Temporary							
1244		GP	S		(344,703)	(344,703)	-	-	
1245		DPW	BADDEBT		-	-	-	-	
1246		SCHMDT-SNP	SNP		64,401,683	17,670,215	64,401,683	17,671,064	
1247		SCHMDT	CN		-	-	-	-	
1248		SCHMDT	TROJD		-	-	-	-	
1249		CUST	DGP		-	-	-	-	
1250		P	SE		33,386,450	8,347,246	33,386,450	8,347,246	
1251		SCHMDT-SG	SG		18,148,261	4,877,687	18,148,261	4,877,687	
1252		SCHMDT-GPS	GPS		-	-	-	-	
1253		SCHMDT-SO	SO		(7,521,243)	(2,125,245)	(15,042,487)	(4,250,799)	
1254		TAXDEPR	TAXDEPR		964,446,362	253,803,705	964,446,362	253,803,705	
1255		DPW	SNPD		-	-	-	-	
1256				B6	1,072,516,810	282,228,906	1,065,340,270	280,448,903	
1257									
1258	TOTAL SCHEDULE - M DEDUCTIONS				B6	1,105,648,810	291,319,775	1,098,472,269	289,540,060
1259									
1260	TOTAL SCHEDULE - M ADJUSTMENTS				B6	(264,661,840)	(38,801,393)	(257,485,299)	(37,019,974)
1261									
1262									
1263									
1264	40911	State Income Taxes							
1265		IBT	IBT		15,394,967	4,630,331	16,894,850	4,998,356	
1266		IBT	IBT		-	-	-	-	
1267		REC	SG		(596,156)	(160,228)	(596,156)	(160,228)	
1268		IBT	IBT		-	-	-	-	
1269	Total State Tax Expense					14,798,811	4,470,103	16,298,694	4,838,128
1270									
1271									
1272	Calculation of Taxable Income:								
1273		Operating Revenues			4,494,573,288	1,193,934,176	4,437,758,145	1,178,664,091	
1274		Operating Deductions:							
1275		O & M Expenses			2,868,971,219	751,298,378	2,787,529,290	730,249,555	
1276		Depreciation Expense			515,917,994	148,046,103	515,169,709	147,845,235	
1277		Amortization Expense			66,908,040	16,475,737	66,908,040	16,476,351	
1278		Taxes Other Than Income			130,014,866	51,964,717	130,014,866	51,966,873	
1279		Interest & Dividends (AFUDC-Equity)			-	-	-	-	
1280		Misc Revenue & Expense			(9,703,584)	(2,076,510)	(9,703,584)	(2,076,505)	
1281		Total Operating Deductions			3,572,108,535	965,708,425	3,489,918,321	944,461,509	
1282		Other Deductions:							
1283		Interest Deductions			311,423,068	85,799,770	310,067,820	85,221,543	
1284		Interest on PCRBS			-	-	-	-	
1285		Schedule M Adjustments			(264,661,840)	(38,801,393)	(257,485,299)	(37,019,974)	
1286									
1287		Income Before State Taxes			346,379,845	103,624,588	380,286,705	111,961,065	
1288									
1289		State Income Taxes			14,798,811	4,470,103	16,298,694	4,838,128	
1290									
1291	Total Taxable Income					331,581,034	99,154,485	363,988,011	107,122,937
1292									
1293	Tax Rate					35.0%	35.0%	35.0%	35.0%
1294									
1295	Federal Income Tax - Calculated					116,053,362	34,704,070	127,395,804	37,493,028
1296									
1297	Adjustments to Calculated Tax:								
1298	40910	PMI	P	SE	-	-	-	-	
1299	40910	REC	P	SG	(51,102,000)	(13,734,625)	(51,102,000)	(13,734,625)	
1300	40910		P	SO	-	-	-	-	
1301	40910	IRS Settle	LABOR	S	-	-	-	-	
1302	Federal Income Tax Expense					64,951,362	20,969,445	76,293,804	23,758,403
1303									
1304	Total Operating Expenses					3,760,976,302	1,008,939,751	3,688,904,850	990,172,144

REVISED PROTOCOL					DECEMBER 2010		DECEMBER 2010	
Thirteen Month Average					Original Filing		Reply Results	
FERC	BUS				TOTAL	OREGON	TOTAL	OREGON
ACCT	DESCRIP	FUNC	FACTOR	Ref				
1305	310	Land and Land Rights						
1306		P	SG		2,329,517	626,102	2,329,517	626,102
1307		P	SG		34,798,446	9,352,738	34,798,446	9,352,738
1308		P	SG		56,316,727	15,136,182	56,316,727	15,136,182
1309		P	S		-	-	-	-
1310		P	SSGCH		1,246,363	342,991	1,246,363	343,167
1311				B8	94,691,053	25,458,012	94,691,053	25,458,188
1312								
1313	311	Structures and Improvements						
1314		P	SG		234,885,474	63,129,897	234,885,474	63,129,897
1315		P	SG		327,384,549	87,990,766	327,384,549	87,990,766
1316		P	SG		187,548,390	50,407,163	187,548,390	50,407,163
1317		P	SSGCH		54,824,863	15,087,452	54,824,863	15,095,178
1318				B8	804,643,277	216,615,278	804,643,277	216,623,004
1319								
1320	312	Boiler Plant Equipment						
1321		P	SG		702,863,691	188,907,860	702,863,691	188,907,860
1322		P	SG		637,562,010	171,356,803	637,562,010	171,356,803
1323		P	SG		1,627,091,950	437,311,618	1,625,623,297	436,916,890
1324		P	SSGCH		319,011,617	87,789,958	319,011,617	87,834,914
1325				B8	3,286,529,269	885,366,239	3,285,060,616	885,016,466
1326								
1327	314	Turbogenerator Units						
1328		P	SG		146,508,558	39,376,935	146,508,558	39,376,935
1329		P	SG		144,894,564	38,943,144	144,894,564	38,943,144
1330		P	SG		429,185,110	115,351,585	429,185,110	115,351,585
1331		P	SSGCH		66,682,853	18,350,695	66,682,853	18,360,092
1332				B8	787,271,085	212,022,359	787,271,085	212,031,756
1333								
1334	315	Accessory Electric Equipment						
1335		P	SG		88,063,697	23,668,778	88,063,697	23,668,778
1336		P	SG		139,206,770	37,414,442	139,206,770	37,414,442
1337		P	SG		67,451,626	18,128,895	67,451,626	18,128,895
1338		P	SSGCH		64,602,266	17,778,131	64,602,266	17,787,235
1339				B8	359,324,359	96,990,246	359,324,359	96,999,350
1340								
1341								
1342								
1343	316	Misc Power Plant Equipment						
1344		P	SG		4,915,806	1,321,215	4,915,806	1,321,215
1345		P	SG		5,295,901	1,423,373	5,295,901	1,423,373
1346		P	SG		12,528,029	3,367,144	12,528,029	3,367,144
1347		P	SSGCH		3,162,939	870,421	3,162,939	870,866
1348				B8	25,902,675	6,982,153	25,902,675	6,982,599
1349								
1350	317	Steam Plant ARO						
1351		P	S		-	-	-	-
1352				B8	-	-	-	-
1353								
1354	SP	Unclassified Steam Plant - Account 300						
1355		P	SG		11,881	3,193	11,881	3,193
1356				B8	11,881	3,193	11,881	3,193
1357								
1358								
1359		<b>Total Steam Production Plant</b>		B8	<b>5,358,373,599</b>	<b>1,443,437,480</b>	<b>5,356,904,946</b>	<b>1,443,114,557</b>
1360								
1361								
1362		Summary of Steam Production Plant by Factor						
1363		S			-	-	-	-
1364		DGP			-	-	-	-
1365		DGU			-	-	-	-
1366		SG			4,848,842,698	1,303,217,833	4,847,374,045	1,302,823,105
1367		SSGCH			509,530,901	140,219,647	509,530,901	140,291,452
1368		<b>Total Steam Production Plant by Factor</b>			<b>5,358,373,599</b>	<b>1,443,437,480</b>	<b>5,356,904,946</b>	<b>1,443,114,557</b>
1369	320	Land and Land Rights						
1370		P	SG		-	-	-	-
1371		P	SG		-	-	-	-
1372				B8	-	-	-	-
1373								
1374	321	Structures and Improvements						
1375		P	SG		-	-	-	-
1376		P	SG	B8	-	-	-	-
1377					-	-	-	-



REVISED PROTOCOL Thirteen Month Average					DECEMBER 2010 Original Filing		DECEMBER 2010 Reply Results	
FERC ACCT	DESCRIP	BUS FUNC	FACTOR	Ref	TOTAL	OREGON	TOTAL	OREGON
1451								
1452								
1453	335	Misc. Power Plant Equipment						
1454		P	SG		1,290,121	346,744	1,290,121	346,744
1455		P	SG		194,397	52,248	194,397	52,248
1456		P	SG		982,272	264,004	982,272	264,004
1457		P	SG		12,963	3,484	12,963	3,484
1458				B8	<u>2,479,753</u>	<u>666,480</u>	<u>2,479,753</u>	<u>666,480</u>
1459								
1460	336	Roads, Railroads & Bridges						
1461		P	SG		4,638,282	1,246,626	4,638,282	1,246,626
1462		P	SG		828,976	222,803	828,976	222,803
1463		P	SG		8,022,513	2,156,202	8,022,513	2,156,202
1464		P	SG		592,158	159,154	592,158	159,154
1465				B8	<u>14,081,929</u>	<u>3,784,784</u>	<u>14,081,929</u>	<u>3,784,784</u>
1466								
1467	337	Hydro Plant ARO						
1468		P	S		-	-	-	-
1469				B8	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
1470								
1471	HP	Unclassified Hydro Plant - Acct 300						
1472		P	S		-	-	-	-
1473		P	SG		-	-	-	-
1474		P	SG		-	-	-	-
1475		P	SG		-	-	-	-
1476				B8	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
1477								
1478		<b>Total Hydraulic Production Plant</b>		B8	<u><b>645,856,753</b></u>	<u><b>173,586,171</b></u>	<u><b>645,856,753</b></u>	<u><b>173,586,171</b></u>
1479								
1480		Summary of Hydraulic Plant by Factor						
1481		S			-	-	-	-
1482		SG			645,856,753	173,586,171	645,856,753	173,586,171
1483		DGP			-	-	-	-
1484		DGU			-	-	-	-
1485		<b>Total Hydraulic Plant by Factor</b>			<u><b>645,856,753</b></u>	<u><b>173,586,171</b></u>	<u><b>645,856,753</b></u>	<u><b>173,586,171</b></u>
1486								
1487	340	Land and Land Rights						
1488		P	SG		21,542,917	5,790,065	21,542,917	5,790,065
1489		P	SG		-	-	-	-
1490		P	SSGCT		-	-	-	-
1491				B8	<u>21,542,917</u>	<u>5,790,065</u>	<u>21,542,917</u>	<u>5,790,065</u>
1492								
1493	341	Structures and Improvements						
1494		P	SG		94,013,356	25,267,861	94,013,356	25,267,861
1495		P	SG		166,099	44,642	166,099	44,642
1496		P	SSGCT		4,121,643	1,037,306	4,121,643	1,034,614
1497				B8	<u>98,301,098</u>	<u>26,349,809</u>	<u>98,301,098</u>	<u>26,347,117</u>
1498								
1499	342	Fuel Holders, Producers & Accessories						
1500		P	SG		6,788,799	1,824,618	6,788,799	1,824,618
1501		P	SG		121,339	32,612	121,339	32,612
1502		P	SSGCT		2,284,126	574,852	2,284,126	573,361
1503				B8	<u>9,194,264</u>	<u>2,432,082</u>	<u>9,194,264</u>	<u>2,430,590</u>
1504								
1505	343	Prime Movers						
1506		P	S		-	-	-	-
1507		P	SG		721,334	193,872	721,334	193,872
1508		P	SG		2,295,253,336	616,892,579	2,286,246,836	614,471,913
1509		P	SSGCT		55,116,485	13,871,323	55,116,485	13,835,327
1510				B8	<u>2,351,091,155</u>	<u>630,957,774</u>	<u>2,342,084,655</u>	<u>628,501,111</u>
1511								
1512	344	Generators						
1513		P	S		-	-	-	-
1514		P	SG		-	-	-	-
1515		P	SG		211,954,059	56,966,647	211,954,059	56,966,647
1516		P	SSGCT		15,873,643	3,994,965	15,873,643	3,984,598
1517				B8	<u>227,827,702</u>	<u>60,961,612</u>	<u>227,827,702</u>	<u>60,951,245</u>





REVISED PROTOCOL Thirteen Month Average				DECEMBER 2010 Original Filing		DECEMBER 2010 Reply Results		
FERC ACCT	DESCRIP	BUS FUNC	FACTOR	Ref	TOTAL	OREGON	TOTAL	OREGON
1649	366	Underground Conduit						
1650		DPW	S		273,151,285	78,912,761	273,151,285	78,912,761
1651				B8	273,151,285	78,912,761	273,151,285	78,912,761
1652								
1653								
1654								
1655								
1656	367	Underground Conductors						
1657		DPW	S		658,701,909	141,854,929	658,701,909	141,854,929
1658				B8	658,701,909	141,854,929	658,701,909	141,854,929
1659								
1660	368	Line Transformers						
1661		DPW	S		985,594,730	357,264,059	985,594,730	357,264,059
1662				B8	985,594,730	357,264,059	985,594,730	357,264,059
1663								
1664	369	Services						
1665		DPW	S		518,926,428	201,106,275	518,926,428	201,106,275
1666				B8	518,926,428	201,106,275	518,926,428	201,106,275
1667								
1668	370	Meters						
1669		DPW	S		183,724,863	59,552,063	183,724,863	59,552,063
1670				B8	183,724,863	59,552,063	183,724,863	59,552,063
1671								
1672	371	Installations on Customers' Premises						
1673		DPW	S		8,825,713	2,436,751	8,825,713	2,436,751
1674				B8	8,825,713	2,436,751	8,825,713	2,436,751
1675								
1676	372	Leased Property						
1677		DPW	S		-	-	-	-
1678				B8	-	-	-	-
1679								
1680	373	Street Lights						
1681		DPW	S		60,630,069	21,113,867	60,630,069	21,113,867
1682				B8	60,630,069	21,113,867	60,630,069	21,113,867
1683								
1684	DP	Unclassified Dist Plant - Acct 300						
1685		DPW	S		25,991,196	5,406,560	25,991,196	5,406,560
1686				B8	25,991,196	5,406,560	25,991,196	5,406,560
1687								
1688	DS0	Unclassified Dist Sub Plant - Acct 300						
1689		DPW	S		-	-	-	-
1690				B8	-	-	-	-
1691								
1692								
1693		<b>Total Distribution Plant</b>		<b>B8</b>	<b>5,419,050,009</b>	<b>1,690,271,132</b>	<b>5,419,050,009</b>	<b>1,690,271,132</b>
1694								
1695		Summary of Distribution Plant by Factor						
1696		S			5,419,050,009	1,690,271,132	5,419,050,009	1,690,271,132
1697								
1698		<b>Total Distribution Plant by Factor</b>			<b>5,419,050,009</b>	<b>1,690,271,132</b>	<b>5,419,050,009</b>	<b>1,690,271,132</b>



REVISED PROTOCOL				DECEMBER 2010		DECEMBER 2010		
Thirteen Month Average				Original Filing		Reply Results		
FERC	BUS							
ACCT	DESCRIP	FUNC	FACTOR	Ref	TOTAL	OREGON	TOTAL	OREGON
1699	389	Land and Land Rights						
1700		G-SITUS	S		8,555,822	2,236,138	8,555,822	2,236,138
1701		CUST	CN		1,128,506	349,476	1,128,506	349,476
1702		G-DGU	SG		332	89	332	89
1703		G-SG	SG		1,228	330	1,228	330
1704		PTD	SO		5,598,055	1,581,818	5,598,055	1,581,933
1705				B8	15,283,942	4,167,851	15,283,942	4,167,966
1706								
1707	390	Structures and Improvements						
1708		G-SITUS	S		106,735,983	31,776,208	106,735,983	31,776,208
1709		G-DGP	SG		358,127	96,254	358,127	96,254
1710		G-DGU	SG		1,573,572	422,927	1,573,572	422,927
1711		CUST	CN		12,096,722	3,746,120	12,096,722	3,746,120
1712		G-SG	SG		4,094,596	1,100,500	4,094,596	1,100,500
1713		PTD	SO		101,791,533	28,762,784	101,791,533	28,764,883
1714				B8	226,650,534	65,904,792	226,650,534	65,906,891
1715								
1716	391	Office Furniture & Equipment						
1717		G-SITUS	S		16,060,987	5,541,584	16,060,987	5,541,584
1718		G-DGP	SG		273,446	73,494	273,446	73,494
1719		G-DGU	SG		281,018	75,529	281,018	75,529
1720		CUST	CN		7,359,187	2,278,997	7,359,187	2,278,997
1721		G-SG	SG		4,562,299	1,226,204	4,562,299	1,226,204
1722		P	SE		119,144	29,788	119,144	29,788
1723		PTD	SO		65,265,588	18,441,809	65,265,588	18,443,155
1724		G-SG	SSGCH		74,351	20,461	74,351	20,471
1725		G-SG	SSGCT		-	-	-	-
1726				B8	93,996,019	27,687,865	93,996,019	27,689,221
1727								
1728	392	Transportation Equipment						
1729		G-SITUS	S		71,113,051	19,740,286	71,113,051	19,740,286
1730		PTD	SO		8,216,935	2,321,823	8,216,935	2,321,992
1731		G-SG	SG		15,384,774	4,134,948	15,384,774	4,134,948
1732		CUST	CN		-	-	-	-
1733		G-DGU	SG		1,024,238	275,283	1,024,238	275,283
1734		P	SE		757,992	189,512	757,992	189,512
1735		G-DGP	SG		155,978	41,922	155,978	41,922
1736		G-SG	SSGCH		390,994	107,599	390,994	107,654
1737		G-DGU	SSGCT		44,655	11,238	44,655	11,209
1738				B8	97,088,616	26,822,612	97,088,616	26,822,807
1739								
1740	393	Stores Equipment						
1741		G-SITUS	S		8,959,725	2,536,913	8,959,725	2,536,913
1742		G-DGP	SG		335,531	90,180	335,531	90,180
1743		G-DGU	SG		673,399	180,989	673,399	180,989
1744		PTD	SO		494,538	139,739	494,538	139,750
1745		G-SG	SG		3,179,843	854,643	3,179,843	854,643
1746		G-DGU	SSGCT		53,971	13,583	53,971	13,548
1747				B8	13,697,006	3,816,047	13,697,006	3,816,022

REVISED PROTOCOL					DECEMBER 2010		DECEMBER 2010	
Thirteen Month Average					Original Filing		Reply Results	
FERC ACCT	DESCRIP	BUS FUNC	FACTOR	Ref	TOTAL	OREGON	TOTAL	OREGON
1748								
1749	394	Tools, Shop & Garage Equipment						
1750		G-SITUS	S		31,502,852	9,951,080	31,502,852	9,951,080
1751		G-DGP	SG		2,809,419	755,084	2,809,419	755,084
1752		G-SG	SG		18,990,165	5,103,965	18,990,165	5,103,965
1753		PTD	SO		4,158,799	1,175,133	4,158,799	1,175,219
1754		P	SE		7,106	1,777	7,106	1,777
1755		G-DGU	SG		4,445,795	1,194,891	4,445,795	1,194,891
1756		G-SG	SSGCH		1,820,646	501,030	1,820,646	501,287
1757		G-SG	SSGCT		3,789	954	3,789	951
1758				B8	63,738,571	18,683,914	63,738,571	18,684,254
1759								
1760	395	Laboratory Equipment						
1761		G-SITUS	S		27,522,297	10,965,818	27,522,297	10,965,818
1762		G-DGP	SG		60,181	16,175	60,181	16,175
1763		G-DGU	SG		779,179	209,419	779,179	209,419
1764		PTD	SO		5,541,354	1,565,796	5,541,354	1,565,910
1765		P	SE		42,438	10,610	42,438	10,610
1766		G-SG	SG		5,966,976	1,603,737	5,966,976	1,603,737
1767		G-SG	SSGCH		253,001	69,624	253,001	69,660
1768		G-SG	SSGCT		14,022	3,529	14,022	3,520
1769				B8	40,179,448	14,444,709	40,179,448	14,444,849
1770								
1771	396	Power Operated Equipment						
1772		G-SITUS	S		93,113,598	27,920,155	93,113,598	27,920,155
1773		G-DGP	SG		981,699	263,850	981,699	263,850
1774		G-SG	SG		27,310,124	7,340,110	27,310,124	7,340,110
1775		PTD	SO		1,717,832	485,400	1,717,832	485,436
1776		G-DGU	SG		2,084,384	560,218	2,084,384	560,218
1777		P	SE		73,823	18,457	73,823	18,457
1778		P	SSGCT		-	-	-	-
1779		G-SG	SSGCH		982,722	270,439	982,722	270,577
1780				B8	126,264,183	36,858,629	126,264,183	36,858,803
1781	397	Communication Equipment						
1782		COM_EQ	S		130,012,302	52,135,234	130,012,302	52,135,234
1783		COM_EQ	SG		4,302,717	1,156,436	4,302,717	1,156,436
1784		COM_EQ	SG		7,667,838	2,060,876	7,667,838	2,060,876
1785		COM_EQ	SO		48,379,756	13,670,454	48,375,431	13,670,229
1786		COM_EQ	CN		1,710,149	529,600	1,710,149	529,600
1787		COM_EQ	SG		59,888,434	16,096,145	59,888,434	16,096,145
1788		COM_EQ	SE		(220,377)	(55,098)	(220,377)	(55,098)
1789		COM_EQ	SSGCH		620,984	170,891	620,984	170,978
1790		COM_EQ	SSGCT		(308)	(78)	(308)	(77)
1791				B8	252,361,495	85,764,460	252,357,170	85,764,323
1792								
1793	398	Misc. Equipment						
1794		G-SITUS	S		1,145,225	464,639	1,145,225	464,639
1795		G-DGP	SG		18,689	5,023	18,689	5,023
1796		G-DGU	SG		19,234	5,170	19,234	5,170
1797		CUST	CN		197,260	61,088	197,260	61,088
1798		PTD	SO		3,278,843	926,488	3,278,843	926,556
1799		P	SE		1,668	417	1,668	417
1800		G-SG	SG		1,499,233	402,947	1,499,233	402,947
1801		G-SG	SSGCT		-	-	-	-
1802				B8	6,160,152	1,865,771	6,160,152	1,865,839
1803								
1804	399	Coal Mine						
1805		P	SE		469,345,489	117,345,284	469,345,489	117,345,284
1806	MP	P	SE		-	-	-	-
1807				B8	469,345,489	117,345,284	469,345,489	117,345,284
1808								
1809	399L	WIDCO Capital Lease						
1810		P	SE	Tab 8	-	-	-	-
1811					-	-	-	-
1812					-	-	-	-
1813		Remove Capital Leases			-	-	-	-
1814				Tab 8	-	-	-	-
1815					-	-	-	-



REVISED PROTOCOL						DECEMBER 2010		DECEMBER 2010	
Thirteen Month Average						Original Filing		Reply Results	
FERC	DESCRIP	BUS	FACTOR	Ref	TOTAL	OREGON	TOTAL	OREGON	
ACCT		FUNC							
1878	303	Miscellaneous Intangible Plant							
1879		I-SITUS	S		2,058,482	540,701	2,058,482	540,701	
1880		I-SG	SG		57,371,530	15,419,680	57,371,530	15,419,680	
1881		PTD	SO		396,534,278	112,046,938	396,534,278	112,055,116	
1882		P	SE		3,628,256	907,133	3,628,256	907,133	
1883		CUST	CN		116,718,484	36,145,444	116,718,484	36,145,444	
1884		P	SG		232,487	62,485	232,487	62,485	
1885		I-DGP	SSGCT		-	-	-	-	
1886				B8	576,543,518	165,122,381	576,543,518	165,130,559	
1887	303	Less Non-Utility Plant							
1888		I-SITUS	S		-	-	-	-	
1889					576,543,518	165,122,381	576,543,518	165,130,559	
1890	IP	Unclassified Intangible Plant - Acct 300							
1891		I-SITUS	S		-	-	-	-	
1892		I-SG	SG		-	-	-	-	
1893		I-DGU	SG		-	-	-	-	
1894		PTD	SO		-	-	-	-	
1895					-	-	-	-	
1896					-	-	-	-	
1897		<b>Total Intangible Plant</b>		B8	<b>724,404,119</b>	<b>204,204,435</b>	<b>724,404,119</b>	<b>204,212,613</b>	
1898									
1899		Summary of Intangible Plant by Factor							
1900		S			4,507,682	540,701	4,507,682	540,701	
1901		DGP			-	-	-	-	
1902		DGU			-	-	-	-	
1903		SG			203,015,418	54,564,219	203,015,418	54,564,219	
1904		SO			396,534,278	112,046,938	396,534,278	112,055,116	
1905		CN			116,718,484	36,145,444	116,718,484	36,145,444	
1906		SSGCT			-	-	-	-	
1907		SSGCH			-	-	-	-	
1908		SE			3,628,256	907,133	3,628,256	907,133	
1909		<b>Total Intangible Plant by Factor</b>			<b>724,404,119</b>	<b>204,204,435</b>	<b>724,404,119</b>	<b>204,212,613</b>	
1910		Summary of Unclassified Plant (Account 106)							
1911		DP			25,991,196	5,406,560	25,991,196	5,406,560	
1912		DS0			-	-	-	-	
1913		GP			150,944	42,652	150,944	42,655	
1914		HP			-	-	-	-	
1915		NP			-	-	-	-	
1916		OP			-	-	-	-	
1917		TP			14,015,206	3,766,851	14,015,206	3,766,851	
1918		TS0			-	-	-	-	
1919		IP			-	-	-	-	
1920		MP			-	-	-	-	
1921		SP			11,881	3,193	11,881	3,193	
1922		<b>Total Unclassified Plant by Factor</b>			<b>40,169,227</b>	<b>9,219,255</b>	<b>40,169,227</b>	<b>9,219,258</b>	
1923									
1924		<b>Total Electric Plant In Service</b>		B8	<b>19,643,024,026</b>	<b>5,550,442,483</b>	<b>19,616,084,429</b>	<b>5,543,234,819</b>	

REVISED PROTOCOL					DECEMBER 2010		DECEMBER 2010	
Thirteen Month Average					Original Filing		Reply Results	
FERC	BUS							
ACCT	DESCRIP	FUNC	FACTOR	Ref	TOTAL	OREGON	TOTAL	OREGON
1925	Summary of Electric Plant by Factor							
1926	S				5,925,549,455	1,859,962,055	5,925,549,455	1,859,962,055
1927	SE				473,755,539	118,447,880	473,755,539	118,447,880
1928	DGU				-	-	-	-
1929	DGP				-	-	-	-
1930	SG				11,888,709,913	3,195,314,786	11,861,774,641	3,188,075,425
1931	SO				654,030,905	184,806,622	654,026,580	184,818,888
1932	CN				139,210,308	43,110,724	139,210,308	43,110,724
1933	DEU				-	-	-	-
1934	SSGCH				513,673,598	141,359,691	513,673,598	141,432,079
1935	SSGCT				80,678,427	20,304,570	80,678,427	20,251,879
1936	Less Capital Leases				(32,584,118)	(12,863,845)	(32,584,118)	(12,864,111)
1937					<u>19,643,024,026</u>	<u>5,550,442,483</u>	<u>19,616,084,429</u>	<u>5,543,234,819</u>
1938	105	Plant Held For Future Use						
1939		DPW	S		-	-	-	-
1940		P	SG		-	-	-	-
1941		T	SG		(8,923,303)	(2,398,306)	(8,923,303)	(2,398,306)
1942		P	SG		8,923,302	2,398,305	8,923,302	2,398,305
1943		P	SE		0	0	0	0
1944		G	SG		-	-	-	-
1945								
1946								
1947		<b>Total Plant Held For Future Use</b>		<b>B10</b>	<b>(1)</b>	<b>(0)</b>	<b>(1)</b>	<b>(0)</b>
1948								
1949	114	Electric Plant Acquisition Adjustments						
1950		P	S		-	-	-	-
1951		P	SG		142,633,069	38,335,325	142,633,069	38,335,325
1952		P	SG		14,560,711	3,913,465	14,560,711	3,913,465
1953		<b>Total Electric Plant Acquisition Adjustment</b>		<b>B15</b>	<b>157,193,780</b>	<b>42,248,790</b>	<b>157,193,780</b>	<b>42,248,790</b>
1954								
1955	115	Accum Provision for Asset Acquisition Adjustments						
1956		P	S		-	-	-	-
1957		P	SG		(76,874,453)	(20,661,458)	(76,874,453)	(20,661,458)
1958		P	SG		(11,233,390)	(3,019,185)	(11,233,390)	(3,019,185)
1959				<b>B15</b>	<b>(88,107,844)</b>	<b>(23,680,643)</b>	<b>(88,107,844)</b>	<b>(23,680,643)</b>
1960								
1961	120	Nuclear Fuel						
1962		P	SE		-	-	-	-
1963		<b>Total Nuclear Fuel</b>		<b>B15</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
1964								
1965	124	Weatherization						
1966		DMSC	S		3,832,460	0	3,832,460	0
1967		DMSC	SO		(2,464)	(696)	(2,464)	(696)
1968				<b>B16</b>	<b>3,829,995</b>	<b>(696)</b>	<b>3,829,995</b>	<b>(696)</b>
1969								
1970	182W	Weatherization						
1971		DMSC	S		10,758,993	-	10,758,993	-
1972		DMSC	SG		-	-	-	-
1973		DMSC	SGCT		-	-	-	-
1974		DMSC	SO		-	-	-	-
1975				<b>B16</b>	<b>10,758,993</b>	<b>-</b>	<b>10,758,993</b>	<b>-</b>
1976								
1977	186W	Weatherization						
1978		DMSC	S		-	-	-	-
1979		DMSC	CN		-	-	-	-
1980		DMSC	CNP		-	-	-	-
1981		DMSC	SG		-	-	-	-
1982		DMSC	SO		-	-	-	-
1983				<b>B16</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
1984								
1985		<b>Total Weatherization</b>		<b>B16</b>	<b>14,588,989</b>	<b>(696)</b>	<b>14,588,989</b>	<b>(696)</b>





REVISED PROTOCOL				DECEMBER 2010		DECEMBER 2010		
Thirteen Month Average				Original Filing		Reply Results		
FERC	BUS							
ACCT	DESCRIP	FUNC	FACTOR	Ref	TOTAL	OREGON	TOTAL	OREGON
2107								
2108	1869	Misc Deferred Debits-Trojan						
2109		P	S		-	-	-	-
2110		P	SNPPN		-	-	-	-
2111				B15	-	-	-	-
2112								
2113		<b>Total Miscellaneous Rate Base</b>		<b>B15</b>	<b>4,314,182</b>	<b>1,206,251</b>	<b>4,314,182</b>	<b>1,206,251</b>
2114								
2115		<b>Total Rate Base Additions</b>		<b>B15</b>	<b>705,210,119</b>	<b>167,989,002</b>	<b>682,089,854</b>	<b>155,019,777</b>
2116	235	Customer Service Deposits						
2117		CUST	S		-	-	-	-
2118		CUST	CN		-	-	-	-
2119		<b>Total Customer Service Deposits</b>		<b>B15</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
2120								
2121	2281	Prop Ins	PTD	SO	-	-	-	-
2122	2282	Inj & Dam	PTD	SO	(8,160,389)	(2,305,845)	(8,160,389)	(2,306,013)
2123	2283	Pen & Ben	PTD	SO	(20,008,719)	(5,653,775)	(20,008,719)	(5,654,188)
2124	2283	Pen & Ben	PTD	SG	-	-	-	-
2125	254	Ins Prov	PTD	SE	(593,553)	(148,400)	(593,553)	(148,400)
2126				B15	(28,762,661)	(8,108,020)	(28,762,661)	(8,108,601)
2127								
2128	22844	Accum Hydro Relicensing Obligation						
2129		P	S		-	-	-	-
2130		P	SG		-	-	-	-
2131				B15	-	-	-	-
2132								
2133	22842	Prv-Trojan	P	TROJD	(2,423,023)	(643,113)	(2,423,023)	(643,113)
2134	230	ARO	P	TROJP	(2,289,329)	(608,780)	(2,289,329)	(608,780)
2135	254105	ARO	P	TROJP	(806,253)	(214,399)	(806,253)	(214,399)
2136	254		P	S	(1,962,062)	-	(1,962,062)	-
2137				B15	(7,480,668)	(1,466,292)	(7,480,668)	(1,466,292)
2138								
2139	252	Customer Advances for Construction						
2140		DPW	S		(11,656,541)	(1,593,020)	(11,656,541)	(1,593,020)
2141		DPW	SE		-	-	-	-
2142		T	SG		(7,092,427)	(1,906,223)	(7,092,427)	(1,906,223)
2143		DPW	SO		-	-	-	-
2144		CUST	CN		-	-	-	-
2145		<b>Total Customer Advances for Construction</b>		<b>B19</b>	<b>(18,748,968)</b>	<b>(3,499,244)</b>	<b>(18,748,968)</b>	<b>(3,499,244)</b>
2146								
2147	25398	SO2 Emissions						
2148		P	SE		(15,485,355)	(3,871,633)	(15,485,355)	(3,871,633)
2149				B19	(15,485,355)	(3,871,633)	(15,485,355)	(3,871,633)
2150								
2151	25399	Other Deferred Credits						
2152		P	S		(2,288,113)	(497,650)	(2,288,113)	(497,650)
2153		LABOR	SO		(2,369,925)	(669,659)	(2,369,925)	(669,708)
2154		P	SG		(22,249,141)	(5,979,876)	(22,249,141)	(5,979,876)
2155		P	SE		(2,354,768)	(588,737)	(2,354,768)	(588,737)
2156				B19	(29,261,947)	(7,735,922)	(29,261,947)	(7,735,971)





REVISED PROTOCOL				DECEMBER 2010		DECEMBER 2010		
Thirteen Month Average				Original Filing		Reply Results		
FERC	BUS							
ACCT	DESCRIP	FUNC	FACTOR	Ref	TOTAL	OREGON	TOTAL	OREGON
2218								
2219								
2220	108SP	Steam Prod Plant Accumulated Depr						
2221		P	S		-	-	-	-
2222		P	SG		(890,379,750)	(239,306,334)	(890,379,750)	(239,306,334)
2223		P	SG		(955,852,887)	(256,903,473)	(955,852,887)	(256,903,473)
2224		P	SG		(625,642,326)	(168,153,163)	(625,561,165)	(168,131,349)
2225		P	SSGCH		(164,118,231)	(45,164,288)	(164,118,231)	(45,187,416)
2226				B17	<u>(2,635,993,193)</u>	<u>(709,527,257)</u>	<u>(2,635,912,032)</u>	<u>(709,528,572)</u>
2227								
2228	108NP	Nuclear Prod Plant Accumulated Depr						
2229		P	SG		-	-	-	-
2230		P	SG		-	-	-	-
2231		P	SG		-	-	-	-
2232				B17	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
2233								
2234								
2235	108HP	Hydraulic Prod Plant Accum Depr						
2236		P	S		-	-	-	-
2237		P	SG		(150,623,290)	(40,482,847)	(150,623,290)	(40,482,847)
2238		P	SG		(29,520,221)	(7,934,116)	(29,520,221)	(7,934,116)
2239		P	SG		(53,881,756)	(14,481,737)	(53,881,756)	(14,481,737)
2240		P	SG		(16,189,375)	(4,351,199)	(16,189,375)	(4,351,199)
2241				B17	<u>(250,214,643)</u>	<u>(67,249,900)</u>	<u>(250,214,643)</u>	<u>(67,249,900)</u>
2242								
2243	108OP	Other Production Plant - Accum Depr						
2244		P	S		-	-	-	-
2245		P	SG		(1,341,258)	(360,488)	(1,341,258)	(360,488)
2246		P	SG		-	-	-	-
2247		P	SG		(232,570,848)	(62,507,797)	(232,183,834)	(62,403,780)
2248		P	SSGCT		(21,911,899)	(5,514,630)	(21,911,899)	(5,500,320)
2249				B17	<u>(255,824,005)</u>	<u>(68,382,916)</u>	<u>(255,436,991)</u>	<u>(68,264,588)</u>
2250								
2251	108EP	Experimental Plant - Accum Depr						
2252		P	SG		-	-	-	-
2253		P	SG		-	-	-	-
2254					<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
2255								
2256		<b>Total Production Plant Accum Depreciation</b>		B17	<u><b>(3,142,031,840)</b></u>	<u><b>(845,160,072)</b></u>	<u><b>(3,141,563,666)</b></u>	<u><b>(845,043,059)</b></u>
2257								
2258		Summary of Prod Plant Depreciation by Factor						
2259		S			-	-	-	-
2260		DGP			-	-	-	-
2261		DGU			-	-	-	-
2262		SG			(2,956,001,710)	(794,481,154)	(2,955,533,536)	(794,355,324)
2263		SSGCH			(164,118,231)	(45,164,288)	(164,118,231)	(45,187,416)
2264		SSGCT			(21,911,899)	(5,514,630)	(21,911,899)	(5,500,320)
2265		<b>Total of Prod Plant Depreciation by Factor</b>			<u><b>(3,142,031,840)</b></u>	<u><b>(845,160,072)</b></u>	<u><b>(3,141,563,666)</b></u>	<u><b>(845,043,059)</b></u>
2266								
2267								
2268	108TP	Transmission Plant Accumulated Depr						
2269		T	SG		(393,223,544)	(105,686,236)	(393,223,544)	(105,686,236)
2270		T	SG		(394,382,155)	(105,997,635)	(394,382,155)	(105,997,635)
2271		T	SG		(400,910,908)	(107,752,360)	(400,388,744)	(107,612,019)
2272		<b>Total Trans Plant Accum Depreciation</b>		B17	<u><b>(1,188,516,606)</b></u>	<u><b>(319,436,231)</b></u>	<u><b>(1,187,994,442)</b></u>	<u><b>(319,295,890)</b></u>

REVISED PROTOCOL					DECEMBER 2010				
Thirteen Month Average					Original Filing				
FERC					DECEMBER 2010				
ACCT DESCRIP BUS FUNC FACTOR Ref					Reply Results				
					TOTAL		TOTAL		
					OREGON		OREGON		
2273	108360	Land and Land Rights							
2274		DPW	S		(5,302,229)	(1,602,022)	(5,302,229)	(1,602,022)	
2275				B17	(5,302,229)	(1,602,022)	(5,302,229)	(1,602,022)	
2276									
2277	108361	Structures and Improvements							
2278		DPW	S		(12,207,271)	(2,891,139)	(12,207,271)	(2,891,139)	
2279				B17	(12,207,271)	(2,891,139)	(12,207,271)	(2,891,139)	
2280									
2281	108362	Station Equipment							
2282		DPW	S		(193,896,184)	(50,927,189)	(193,896,184)	(50,927,189)	
2283				B17	(193,896,184)	(50,927,189)	(193,896,184)	(50,927,189)	
2284									
2285	108363	Storage Battery Equipment							
2286		DPW	S		(653,513)	-	(653,513)	-	
2287				B17	(653,513)	-	(653,513)	-	
2288									
2289	108364	Poles, Towers & Fixtures							
2290		DPW	S		(650,324,680)	(254,217,371)	(650,324,680)	(254,217,371)	
2291				B17	(650,324,680)	(254,217,371)	(650,324,680)	(254,217,371)	
2292									
2293	108365	Overhead Conductors							
2294		DPW	S		(239,104,064)	(111,511,075)	(239,104,064)	(111,511,075)	
2295				B17	(239,104,064)	(111,511,075)	(239,104,064)	(111,511,075)	
2296									
2297	108366	Underground Conduit							
2298		DPW	S		(113,096,837)	(30,131,046)	(113,096,837)	(30,131,046)	
2299				B17	(113,096,837)	(30,131,046)	(113,096,837)	(30,131,046)	
2300									
2301	108367	Underground Conductors							
2302		DPW	S		(259,139,566)	(49,257,652)	(259,139,566)	(49,257,652)	
2303				B17	(259,139,566)	(49,257,652)	(259,139,566)	(49,257,652)	
2304									
2305	108368	Line Transformers							
2306		DPW	S		(338,323,984)	(145,890,557)	(338,323,984)	(145,890,557)	
2307				B17	(338,323,984)	(145,890,557)	(338,323,984)	(145,890,557)	
2308									
2309	108369	Services							
2310		DPW	S		(149,366,555)	(54,920,796)	(149,366,555)	(54,920,796)	
2311				B17	(149,366,555)	(54,920,796)	(149,366,555)	(54,920,796)	
2312									
2313	108370	Meters							
2314		DPW	S		(83,109,895)	(30,602,765)	(83,109,895)	(30,602,765)	
2315				B17	(83,109,895)	(30,602,765)	(83,109,895)	(30,602,765)	
2316									
2317									
2318									
2319	108371	Installations on Customers' Premises							
2320		DPW	S		(7,615,655)	(2,335,549)	(7,615,655)	(2,335,549)	
2321				B17	(7,615,655)	(2,335,549)	(7,615,655)	(2,335,549)	
2322									
2323	108372	Leased Property							
2324		DPW	S		-	-	-	-	
2325				B17	-	-	-	-	
2326									
2327	108373	Street Lights							
2328		DPW	S		(26,942,772)	(7,478,090)	(26,942,772)	(7,478,090)	
2329				B17	(26,942,772)	(7,478,090)	(26,942,772)	(7,478,090)	
2330									
2331	108D00	Unclassified Dist Plant - Acct 300							
2332		DPW	S		-	-	-	-	
2333				B17	-	-	-	-	
2334									
2335	108DS	Unclassified Dist Sub Plant - Acct 300							
2336		DPW	S		-	-	-	-	
2337				B17	-	-	-	-	
2338									
2339	108DP	Unclassified Dist Sub Plant - Acct 300							
2340		DPW	S		-	-	-	-	
2341				B17	-	-	-	-	
2342									
2343									
2344		<b>Total Distribution Plant Accum Depreciation</b>		B17	<b>(2,079,083,205)</b>	<b>(741,765,252)</b>	<b>(2,079,083,205)</b>	<b>(741,765,252)</b>	
2345									
2346		Summary of Distribution Plant Depr by Factor							
2347		S			(2,079,083,205)	(741,765,252)	(2,079,083,205)	(741,765,252)	
2348									
2349		<b>Total Distribution Depreciation by Factor</b>			<b>(2,079,083,205)</b>	<b>(741,765,252)</b>	<b>(2,079,083,205)</b>	<b>(741,765,252)</b>	



REVISED PROTOCOL				DECEMBER 2010		DECEMBER 2010		
Thirteen Month Average				Original Filing		Reply Results		
FERC	BUS							
ACCT	DESCRIP	FUNC	FACTOR	Ref	TOTAL	OREGON	TOTAL	OREGON
2421								
2422	111HP	Accum Prov for Amort-Hydro						
2423		P	SG		(344,575)	(92,611)	(344,575)	(92,611)
2424		P	SG		-	-	-	-
2425		P	SG		(9,857)	(2,649)	(9,857)	(2,649)
2426		P	SG		(407,601)	(109,550)	(407,601)	(109,550)
2427				B18	(762,033)	(204,811)	(762,033)	(204,811)
2428								
2429								
2430	111IP	Accum Prov for Amort-Intangible Plant						
2431		I-SITUS	S		(1,434,385)	(580,763)	(1,434,385)	(580,763)
2432		I-DGP	SG		112,088	30,126	112,088	30,126
2433		I-DGU	SG		(313,621)	(84,292)	(313,621)	(84,292)
2434		P	SE		(1,462,456)	(365,642)	(1,462,456)	(365,642)
2435		I-SG	SG		(42,495,274)	(11,421,406)	(42,495,274)	(11,421,406)
2436		I-SG	SG		(17,094,381)	(4,594,437)	(17,094,381)	(4,594,437)
2437		I-SG	SG		(3,265,906)	(877,774)	(3,265,906)	(877,774)
2438		CUST	CN		(93,562,892)	(28,974,607)	(93,562,892)	(28,974,607)
2439		P	SSGCT		-	-	-	-
2440		P	SSGCH		(26,279)	(7,232)	(26,279)	(7,235)
2441		PTD	SO		(279,823,441)	(79,068,473)	(279,823,441)	(79,074,244)
2442				B18	(439,366,547)	(125,944,499)	(439,366,547)	(125,950,273)
2443	111IP	Less Non-Utility Plant						
2444		NUTIL	OTH		-	-	-	-
2445					(439,366,547)	(125,944,499)	(439,366,547)	(125,950,273)
2446								
2447	111390	Accum Amtr - Capital Lease						
2448		G-SITUS	S		-	-	-	-
2449		P	SG		-	-	-	-
2450		PTD	SO		-	-	-	-
2451					-	-	-	-
2452					-	-	-	-
2453		Remove Capital Lease Amtr			-	-	-	-
2454					-	-	-	-
2455		<b>Total Accum Provision for Amortization</b>		B18	<b>(474,413,197)</b>	<b>(141,099,147)</b>	<b>(474,413,197)</b>	<b>(141,105,146)</b>
2456								
2457								
2458								
2459								
2460		Summary of Amortization by Factor						
2461		S			(21,431,235)	(11,435,519)	(21,431,235)	(11,435,519)
2462		DGP			-	-	-	-
2463		DGU			-	-	-	-
2464		SE			(1,462,456)	(365,642)	(1,462,456)	(365,642)
2465		SO			(290,720,114)	(82,147,498)	(290,720,114)	(82,153,493)
2466		CN			(96,120,501)	(29,766,649)	(96,120,501)	(29,766,649)
2467		SSGCT			-	-	-	-
2468		SSGCH			(26,279)	(7,232)	(26,279)	(7,235)
2469		SG			(64,652,612)	(17,376,608)	(64,652,612)	(17,376,608)
2470		Less Capital Lease			-	-	-	-
2471		<b>Total Provision For Amortization by Factor</b>			<b>(474,413,197)</b>	<b>(141,099,147)</b>	<b>(474,413,197)</b>	<b>(141,105,146)</b>

PacifiCorp  
Oregon General Rate Case December 2010 - Reply  
Pro Forma Factors

13. MONTH AVERAGE FACTORS

REVISED PROTOCOL

DESCRIPTION	FACTOR	California	Oregon	Washington	Utah	Idaho	Wyoming	FERC-UPL	OTHER	NON-UTILITY	Ref #
Situs	S	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	Situs
System Generation	SG	1.79%	26.8769%	7.9563%	41.2071%	5.7042%	16.0910%	0.3778%	0	0	11.4
System Generation (Pac. Power Costs on SG)	SG-P	1.7867%	26.8769%	7.9563%	41.2071%	5.7042%	16.0910%	0.3778%	0	0	11.4
System Generation (R.M.P. Costs on SG)	SG-U	1.7867%	26.8769%	7.9563%	41.2071%	5.7042%	16.0910%	0.3778%	0	0	11.4
Divisional Generation - Pac. Power	DGP	3.6047%	54.2251%	16.0522%	0.0000%	0.0000%	26.1181%	0.0000%	0	0	11.4
Divisional Generation - R.M.P.	DGU	0.0000%	0.0000%	0.0000%	81.7041%	11.3101%	0.7491%	0.0000%	0	0	11.4
System Capacity	SC	1.8361%	27.5019%	8.1562%	41.2608%	5.4658%	15.4140%	0.3652%	0	0	11.3
System Energy	SE	1.6383%	25.0019%	7.3568%	41.0460%	6.4194%	18.1221%	0.4156%	0	0	11.4
System Energy (Pac. Power Costs on SE)	SE-P	1.6383%	25.0019%	7.3568%	41.0460%	6.4194%	18.1221%	0.4156%	0	0	11.4
System Energy (R.M.P. Costs on SE)	SE-U	1.6383%	25.0019%	7.3568%	41.0460%	6.4194%	18.1221%	0.4156%	0	0	11.4
Divisional Energy - Pac. Power	DEP	3.3781%	51.5526%	15.1693%	0.0000%	0.0000%	29.9001%	0.0000%	0	0	11.4
Divisional Energy - R.M.P.	DEU	0.0000%	0.0000%	0.0000%	79.6977%	12.4642%	7.0312%	0.8069%	0	0	11.4
System Overhead	SO	2.4676%	28.2586%	7.7611%	41.4166%	5.5349%	14.3032%	0.2580%	0	0	11.16
System Overhead (Pac. Power Costs on SO)	SO-P	2.4676%	28.2586%	7.7611%	41.4166%	5.5349%	14.3032%	0.2580%	0	0	11.16
System Overhead (R.M.P. Costs on SO)	SO-U	2.4676%	28.2586%	7.7611%	41.4166%	5.5349%	14.3032%	0.2580%	0	0	11.16
Gross Plant-System	GPS	2.3119%	27.4388%	7.5354%	42.7774%	5.4522%	14.3032%	0.2580%	0	0	11.16
System Net Plant	SNP	1.6908%	25.1020%	7.6071%	44.8842%	5.6372%	14.6173%	0.4615%	0	0	11.7
Seasonal System Capacity Combustion Turbine	SSCCT	1.7063%	25.7072%	7.8281%	45.4296%	4.9205%	13.9596%	0.4487%	0	0	11.7
Seasonal System Energy Combustion Turbine	SSECT	1.6442%	23.2863%	6.9440%	43.2482%	7.7873%	16.5904%	0.4996%	0	0	11.7
Seasonal System Capacity Cholla	SSCCH	1.8628%	28.2418%	8.3604%	40.0318%	5.4624%	15.6952%	0.3456%	0	0	11.8
Seasonal System Energy Cholla	SSECH	1.8268%	25.4083%	7.5680%	40.8717%	6.0886%	18.3375%	0.3990%	0	0	11.8
Seasonal System Generation Cholla	SSGCH	1.8038%	27.5335%	8.1623%	40.1668%	5.6190%	16.3558%	0.3589%	0	0	11.8
Seasonal System Capacity Purchases	SSCP	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0	0	11.9
Seasonal System Energy Purchases	SSEP	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0	0	11.10
Seasonal System Generation Contracts	SSGC	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0	0	11.9
Seasonal System Generation Combustion Turbine	SSGCT	1.6908%	25.1020%	7.6071%	44.8842%	5.6372%	14.6173%	0.4615%	0	0	11.7
Mid-Columbia	MC	0.9417%	61.7263%	3.9257%	21.7194%	3.0065%	8.4812%	0.1991%	0	0	11.10
Customer - System	SNPD	3.5323%	28.3987%	6.4515%	47.4881%	4.5940%	9.5355%	0.0000%	0	0	11.14
Excise Tax - superfund	CN	2.5516%	30.9681%	7.0131%	47.9382%	3.9526%	7.5764%	0.00%	0.00%	0.00%	11.19
Interest	EXCTAX	3.3436%	29.4303%	6.9751%	38.7516%	3.8248%	9.5889%	-0.7970%	5.9161%	2.9665%	11.20
CIAC	INT	2.3119%	27.4388%	7.5354%	42.7774%	5.4522%	14.2222%	0.2621%	0	0.0000%	11.16
Bad Debt Expense	CIAC	3.5323%	28.3987%	6.4515%	47.4881%	4.5940%	9.5355%	0.0000%	0	0	11.19
Accumulated Investment Tax Credit 1984	BADDEBT	-0.1529%	40.6511%	14.0034%	36.5710%	3.2177%	5.7097%	0.0000%	0.0000%	0.0000%	11.19
Accumulated Investment Tax Credit 1985	ITC84	3.29%	70.9760%	14.18%	0	0	10.9460%	0.00%	0.00%	0.61%	Fixed
Accumulated Investment Tax Credit 1986	ITC85	5.42%	67.6900%	13.36%	0	0	11.6100%	0.00%	0.00%	1.92%	Fixed
Accumulated Investment Tax Credit 1988	ITC86	4.79%	64.6080%	13.13%	0	0	15.5000%	0.00%	0.00%	1.98%	Fixed
Accumulated Investment Tax Credit 1989	ITC88	4.27%	61.2000%	14.96%	0	0	16.7100%	0.00%	0.00%	2.86%	Fixed
Accumulated Investment Tax Credit 1990	ITC89	4.88%	56.3558%	15.27%	0	0	20.6776%	0.00%	0.00%	2.82%	Fixed
Other Electric	ITC90	1.50%	15.9356%	3.91%	46.94%	13.98%	17.3435%	0.00%	0.00%	0.39%	Fixed
Non-Utility	OTHER	0.00%	0.0000%	0.00%	0.00%	0.00%	0.0000%	0.00%	100.00%	0.00%	Situs
System Net Steam Plant	NUTIL	1.7886%	26.9602%	7.9825%	41.0751%	5.6934%	16.1246%	0.3754%	0	0	Situs
System Net Hydro Plant	SNPPS	1.7867%	26.8769%	7.9563%	41.2071%	5.7042%	16.0910%	0.3778%	0	0	11.13
System Net Other Production Plant	SNPPH	1.7845%	26.8364%	7.9484%	41.2910%	5.7026%	16.0574%	0.3797%	0	0	11.12
System Net Intangible Plant	SNPPI	2.1072%	27.4569%	7.7097%	41.7018%	6.1493%	14.5808%	0.2943%	0	0	11.15
Trojan Plant Allocator	TROJP	1.7641%	26.5921%	7.8652%	41.1827%	5.8128%	16.3995%	0.3835%	0	0	11.21
Income Before Taxes	TROJD	1.7602%	26.5418%	7.8492%	41.1783%	5.8320%	16.4540%	0.3846%	0	0	11.21
DIT Expense	IBT	3.3633%	29.5851%	7.0091%	38.9457%	3.8413%	9.6272%	-0.8030%	5.4434%	2.9878%	11.17
DIT Balance	DITXP	2.2084%	28.2470%	14.2564%	37.1291%	4.5775%	16.6740%	0.3811%	0.0000%	-3.4735%	11.17
Tax Depreciation	DITBAL	2.4801%	28.4325%	8.9717%	42.7697%	5.7647%	13.4220%	0.2641%	0.0000%	-2.1043%	11.18
SCHMAT Depreciation Expense	TAXDEPR	1.6994%	26.3160%	14.2466%	39.6013%	5.4568%	15.8259%	0.3583%	0.0000%	-3.5043%	11.22
SCHMAMT Amortization Expense	SCHMDEXP	2.9240%	28.6984%	8.1116%	40.2124%	5.3959%	14.4037%	0.2541%	0.0000%	0.0000%	11.22
SCHMDT Amortization Expense	SCHMAEXP	1.9225%	24.6254%	6.2322%	35.5105%	4.6657%	12.4887%	0.2323%	14.3228%	0.0000%	11.22

PacifiCorp  
Oregon General Rate Case December 2010 - Reply  
CP ALLOCATION FACTOR

75.00% Demand Percentage  
25.00% Energy Percentage

MONTH	CALIFORNIA	OREGON	WASHINGTON	WYOMING	UTAH	IDAHO	WYOMING	FERC	TOTAL
Jan-10	166.6	2,712.7	816.5	1,056.1	3,078.7	462.7	254.8	29.6	8,577.8
Feb-10	157.6	2,587.1	743.5	1,056.2	3,123.2	447.0	272.0	22.9	8,409.6
Mar-10	151.1	2,351.2	651.7	1,014.2	2,860.2	406.7	237.5	28.4	7,701.0
Apr-10	137.4	2,178.1	569.9	1,003.0	2,793.6	419.6	255.3	21.6	7,378.4
May-10	149.2	1,841.4	581.6	958.2	3,590.8	548.6	227.7	32.2	7,929.6
Jun-10	156.7	2,078.1	663.4	1,061.4	3,951.5	490.0	241.7	38.0	8,680.9
Jul-10	157.4	2,371.0	733.3	1,068.5	4,249.3	442.9	237.1	45.7	9,305.2
Aug-10	160.4	2,417.2	722.6	1,053.3	4,201.4	475.7	237.9	37.1	9,305.5
Sep-10	144.3	2,191.4	639.3	1,011.5	3,879.5	476.9	238.9	29.6	8,611.4
Oct-10	139.7	2,230.6	652.2	986.9	2,722.5	397.6	240.4	25.3	7,395.3
Nov-10	153.1	2,239.0	690.8	1,087.1	3,456.4	449.7	272.3	25.5	8,374.0
Dec-10	169.8	2,410.6	722.8	1,118.7	3,513.6	469.6	282.9	30.7	8,718.7
Load Curtailment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	1,843.3	27,608.4	8,187.8	12,475.2	41,420.7	5,487.0	2,998.4	366.6	100,387.4
Juris % by Division	3.6781%	55.0905%	16.3381%	24.8934%	82.3920%	10.9144%	5.9644%	0.7293%	200.00%
Total Hydro Adjustment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Off-System Sales	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal	1,843.3	27,608.4	8,187.8	12,475.2	41,420.7	5,487.0	2,998.4	366.6	100.00%
System Capacity Factor	1.8361%	27.5019%	8.1562%	12.4271%	41.2608%	5.4658%	2.9869%	0.3652%	100.00%



PacifiCorp  
Oregon General Rate Case December 2010 - Reply  
ENERGY ALLOCATION NOTE

MONTH	CALIFORNIA	OREGON	WASHINGTON	WYOMING	UTAH	IDAHO	WYOMING	FERC	TOTAL
Jan-10	86,497	1,389,779	427,749	741,281	2,089,622	279,191	181,620	20,108	5,215,847
Feb-10	75,058	1,225,348	355,600	681,691	1,878,497	282,460	177,406	16,855	4,692,914
Mar-10	77,461	1,239,088	346,442	694,250	1,929,358	259,217	172,522	17,690	4,736,030
Apr-10	74,760	1,160,511	316,088	693,149	1,789,443	266,816	177,581	17,888	4,496,236
May-10	79,825	1,137,489	319,016	668,022	1,858,908	307,825	169,812	19,469	4,560,365
Jun-10	83,472	1,142,124	314,493	689,088	2,017,578	394,571	171,876	22,198	4,835,400
Jul-10	90,468	1,254,400	372,098	706,273	2,328,547	442,538	173,075	27,535	5,394,933
Aug-10	85,977	1,249,529	374,950	732,983	2,322,070	390,488	174,301	26,073	5,356,371
Sep-10	74,942	1,136,800	343,688	698,171	1,995,411	286,854	170,314	19,990	4,726,170
Oct-10	71,757	1,141,723	351,973	699,095	1,873,409	280,275	175,241	18,216	4,611,688
Nov-10	74,915	1,210,505	368,264	727,495	1,858,423	275,496	184,235	17,395	4,716,728
Dec-10	86,012	1,380,764	425,688	775,854	2,139,527	300,360	196,496	20,400	5,325,099
Load Curtailment	0	0	0	0	0	0	0	0	0
Total	961,144	14,668,059	4,316,049	8,507,349	24,080,793	3,766,091	2,124,479	243,817	58,667,781
Juris % by Division	3.3781%	51.5526%	15.1693%	29.9001%	79.6977%	12.4642%	7.0312%	0.8069%	200.00%
Total Hydro Adjustment	0	0	0	0	0	0	0	0	0
Off-System Sales	0	0	0	0	0	0	0	0	0
Subtotal	961,144	14,668,059	4,316,049	8,507,349	24,080,793	3,766,091	2,124,479	243,817	58,667,781
System Energy Factor	1.6383%	25.0019%	7.3568%	14.5009%	41.0460%	6.4194%	3.6212%	0.4156%	100.00%
Divisional Energy - Pacific	3.3781%	51.5526%	15.1693%	29.9001%	0.0000%	0.0000%	0.0000%	0.0000%	100.00%
Divisional Energy - Utah	0.0000%	0.0000%	0.0000%	0.0000%	79.6977%	12.4642%	7.0312%	0.8069%	100.00%
System Generation Factor	1.7867%	26.8769%	7.9563%	12.9455%	41.2071%	5.7042%	3.1455%	0.3778%	100.00%
Divisional Generation - Pacific	3.6047%	54.2251%	16.0522%	26.1181%	0.0000%	0.0000%	0.0000%	0.0000%	100.00%
Divisional Generation - Utah	0.0000%	0.0000%	0.0000%	0.0000%	81.7041%	11.3101%	6.2367%	0.7491%	100.00%

PacifiCorp  
Oregon General Rate Case December 2010 - Reply  
Pro Forma Factors  
Coincident Peaks:  
Forecast:

Year	Month	Day	hour	CA	ID	OR	UT	WA	EWY	WWY	FERC	total
2010	1	22	8	166.6	462.7	2,712.7	3,179.9	816.5	1,056.1	254.8	29.6	8,679.0
2010	2	4	8	157.6	447.0	2,587.1	3,123.2	743.5	1,056.2	272.0	22.9	8,409.6
2010	3	30	8	151.1	406.7	2,351.2	2,860.2	651.7	1,014.2	237.5	28.4	7,701.0
2010	4	1	8	137.4	419.6	2,178.1	2,793.6	569.9	1,003.0	255.3	21.6	7,378.4
2010	5	19	15	149.2	548.6	1,841.4	3,590.8	581.6	958.2	227.7	32.2	7,929.6
2010	6	24	15	156.7	660.4	2,078.1	4,141.8	663.4	1,061.4	241.7	38.0	9,041.5
2010	7	19	16	157.4	647.4	2,371.0	4,466.0	733.3	1,068.5	237.1	45.7	9,728.5
2010	8	26	16	160.4	592.0	2,417.2	4,408.9	722.6	1,053.3	237.9	37.1	9,629.4
2010	9	9	16	144.3	480.2	2,191.4	3,996.7	639.3	1,011.5	238.9	29.6	8,731.9
2010	10	29	8	139.7	397.6	2,230.6	2,722.5	652.2	986.9	240.4	25.3	7,395.3
2010	11	24	18	153.1	449.7	2,239.0	3,456.4	690.8	1,087.1	272.3	25.5	8,374.0
2010	12	15	18	169.8	469.6	2,410.6	3,624.1	722.8	1,118.7	282.9	30.7	8,823.3
Total 12 CP				1,843.3	5,981.6	27,608.4	42,364.2	8,187.8	12,475.2	2,998.4	366.6	101,825.5

+ plus

Monsanto Curtailment (ID) - Grossed up for Line Losses (No adjustment - Forecast Loads assumes no curtailment)												
Year	Month	Day	hour	CA	ID	OR	UT	WA	EWY	WWY	FERC	total
2010	1	22	8									-
2010	2	4	8									-
2010	3	30	8									-
2010	4	1	8									-
2010	5	19	15									-
2010	6	24	15									-
2010	7	19	16									-
2010	8	26	16									-
2010	9	9	16									-
2010	10	4	19									-
2010	11	24	18									-
2010	12	15	18									-
Total 12 CP				-	-	-	-	-	-	-	-	-

- (less)

MagCorp Buy-through (UT) - Grossed up for Line Losses; ID Irrigation Load Control; UT Cool Keeper												
Year	Month	Day	hour	CA	ID	OR	UT	WA	EWY	WWY	FERC	total
2010	1	22	8				101.2					101.2
2010	2	4	8				-					-
2010	3	30	8				-					-
2010	4	1	8				-					-
2010	5	19	15				-					-
2010	6	24	15		170.4		190.2					360.6
2010	7	19	16		204.6		216.8					421.3
2010	8	26	16		116.3		207.6					323.9
2010	9	9	16		3.3		117.2					120.5
2010	10	4	19				-					-
2010	11	24	18				-					-
2010	12	15	18				110.5					110.5
Total 12 CP				-	494.6	-	943.5	-	-	-	-	1,438.1

= equals

12 CP for Input:

Year	Month	Day	hour	CA	ID	OR	UT	WA	EWY	WWY	FERC	total
2010	1	22	8	166.6	462.7	2,712.7	3,078.7	816.5	1,056.1	254.8	29.6	8,577.8
2010	2	4	8	157.6	447.0	2,587.1	3,123.2	743.5	1,056.2	272.0	22.9	8,409.6
2010	3	30	8	151.1	406.7	2,351.2	2,860.2	651.7	1,014.2	237.5	28.4	7,701.0
2010	4	1	8	137.4	419.6	2,178.1	2,793.6	569.9	1,003.0	255.3	21.6	7,378.4
2010	5	19	15	149.2	548.6	1,841.4	3,590.8	581.6	958.2	227.7	32.2	7,929.6
2010	6	24	15	156.7	490.0	2,078.1	3,951.5	663.4	1,061.4	241.7	38.0	8,680.9
2010	7	19	16	157.4	442.9	2,371.0	4,249.3	733.3	1,068.5	237.1	45.7	9,305.2
2010	8	26	16	160.4	475.7	2,417.2	4,201.4	722.6	1,053.3	237.9	37.1	9,305.5
2010	9	9	16	144.3	476.9	2,191.4	3,879.5	639.3	1,011.5	238.9	29.6	8,611.4
2010	10	4	19	139.7	397.6	2,230.6	2,722.5	652.2	986.9	240.4	25.3	7,395.3
2010	11	24	18	153.1	449.7	2,239.0	3,456.4	690.8	1,087.1	272.3	25.5	8,374.0
2010	12	15	18	169.8	469.6	2,410.6	3,513.6	722.8	1,118.7	282.9	30.7	8,718.7
Total 12 CP				1,843.3	5,487.0	27,608.4	41,420.7	8,187.8	12,475.2	2,998.4	366.6	100,387.4

System Capacity Factor

1.8361%	5.4658%	27.5019%	41.2608%	8.1562%	12.4271%	2.9869%	0.3652%	100.0000%
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PacifiCorp  
Oregon General Rate Case December 2010 - Reply

CY 2010 Forecast  
ENERGY  
Forecast:

Year	Month	CA	ID	OR	UT	WA	EWY	WWY	FERC	total
2010	1	86,497	278,654	1,389,779	2,096,976	427,749	741,281	181,620	20,108	5,222,663
2010	2	75,058	281,620	1,225,348	1,878,119	355,600	681,691	177,406	16,855	4,691,696
2010	3	77,461	258,455	1,239,088	1,929,125	346,442	694,250	172,522	17,690	4,735,034
2010	4	74,760	266,242	1,160,511	1,789,096	316,088	693,149	177,581	17,888	4,495,315
2010	5	79,825	307,398	1,137,489	1,858,577	319,016	668,022	169,812	19,469	4,559,608
2010	6	83,472	393,795	1,142,124	2,021,156	314,493	689,088	171,876	22,198	4,838,202
2010	7	90,468	438,711	1,254,400	2,336,294	372,098	706,273	173,075	27,535	5,398,855
2010	8	85,977	385,079	1,249,529	2,328,234	374,950	732,983	174,301	26,073	5,357,125
2010	9	74,942	285,152	1,136,800	2,000,403	343,688	698,171	170,314	19,990	4,729,459
2010	10	71,757	279,252	1,141,723	1,873,232	351,973	699,095	175,241	18,216	4,610,488
2010	11	74,915	268,077	1,210,505	1,858,383	368,264	727,495	184,235	17,395	4,709,268
2010	12	86,012	294,677	1,380,764	2,146,727	425,688	775,854	196,496	20,400	5,326,617
Total Energy		961,144	3,737,111	14,668,059	24,116,323	4,316,049	8,507,349	2,124,479	243,817	58,674,331

+ plus

Monsanto Curtailment (ID), Nucor Curtailment (UT) - Grossed up for Line Losses												
Year	Month	Day	hour	CA	ID	OR	UT	WA	EWY	WWY	FERC	total
2010	1				538		272					809
2010	2				840		378					1,218
2010	3				762		233					995
2010	4				574		347					921
2010	5				426		330					757
2010	6				776		231					1,007
2010	7				3,827		283					4,110
2010	8				5,409		119					5,527
2010	9				1,702		224					1,926
2010	10				1,023		177					1,200
2010	11				7,419		40					7,460
2010	12				5,683		20					5,704
Total Energy					28,980		2,654					31,634

- (less)

MagCorp Buy-through (UT) - Grossed up for Line Losses												
Year	Month	Day	hour	CA	ID	OR	UT	WA	EWY	WWY	FERC	total
2010	1						7,625					7,625
2010	2						-					-
2010	3						-					-
2010	4						-					-
2010	5						-					-
2010	6						3,808					3,808
2010	7						8,031					8,031
2010	8						6,282					6,282
2010	9						5,215					5,215
2010	10						-					-
2010	11						-					-
2010	12						7,221					7,221
Total Energy							38,183					38,183

= equals

Energy for Input:

Year	Month	Day	hour	CA	ID	OR	UT	WA	EWY	WWY	FERC	total
2010	1			86,497	279,191	1,389,779	2,089,622	427,749	741,281	181,620	20,108	5,215,847
2010	2			75,058	282,460	1,225,348	1,878,497	355,600	681,691	177,406	16,855	4,692,914
2010	3			77,461	259,217	1,239,088	1,929,358	346,442	694,250	172,522	17,690	4,736,030
2010	4			74,760	266,816	1,160,511	1,789,443	316,088	693,149	177,581	17,888	4,496,236
2010	5			79,825	307,825	1,137,489	1,858,908	319,016	668,022	169,812	19,469	4,560,365
2010	6			83,472	394,571	1,142,124	2,017,578	314,493	689,088	171,876	22,198	4,835,400
2010	7			90,468	442,538	1,254,400	2,328,547	372,098	706,273	173,075	27,535	5,394,933
2010	8			85,977	390,488	1,249,529	2,322,070	374,950	732,983	174,301	26,073	5,356,371
2010	9			74,942	286,854	1,136,800	1,995,411	343,688	698,171	170,314	19,990	4,726,170
2010	10			71,757	280,275	1,141,723	1,873,409	351,973	699,095	175,241	18,216	4,611,688
2010	11			74,915	275,496	1,210,505	1,858,423	368,264	727,495	184,235	17,395	4,716,728
2010	12			86,012	300,360	1,380,764	2,139,527	425,688	775,854	196,496	20,400	5,325,099
Total Energy				961,144	3,766,091	14,668,059	24,080,793	4,316,049	8,507,349	2,124,479	243,817	58,667,781

System Energy Factor	1.6383%	6.4194%	25.0019%	41.0460%	7.3568%	14.5009%	3.6212%	0.4156%	100%
System Generation Factor	1.7867%	5.7042%	26.8769%	41.2071%	7.9563%	12.9455%	3.1455%	0.3778%	100%

PacifiCorp  
Oregon General Rate Case December 2010 - Reply  
Pro Forma Factors  
75.00% Demand Percentage  
25.00% Energy Percentage

THIS SECTION OF THE FACTOR INPUT DEALS WITH THE DEMAND OF THE COMBUSTION TURBINES

MONTH	MWH	Proportion	CALIFORNIA	OREGON	WASHINGTON	MONTANA	WYOMING	UTAH	IDAHO	WYOMING	FERC
Jan-10	-	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Feb-10	-	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mar-10	-	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Apr-10	-	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
May-10	-	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jun-10	-	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jul-10	9,666	54.29%	85.5	1287.2	398.1	0.0	580.1	2306.9	240.4	128.7	24.8
Aug-10	8,138	45.71%	73.3	1104.9	330.3	0.0	481.5	1920.4	217.4	108.7	17.0
Sep-10	-	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oct-10	-	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nov-10	-	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dec-10	-	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	17,804	100.00%	159	2,392	728	-	1,062	4,227	458	237	42
SSCCT Factor			1.71%	25.71%	7.83%	0.00%	11.41%	45.43%	4.92%	2.55%	0.45%
SSGCT Factor			1.69%	25.10%	7.61%	0.00%	11.90%	44.88%	5.64%	2.72%	0.46%

100.00%  
100.00%

THIS SECTION OF THE FACTOR INPUT DEALS WITH THE ENERGY OF THE COMBUSTION TURBINES

MONTH	Total	Proportion	CALIFORNIA	OREGON	WASHINGTON	MONTANA	WYOMING	UTAH	IDAHO	WYOMING	FERC
Jan-10	-	0.00%	-	-	-	-	-	-	-	-	-
Feb-10	-	0.00%	-	-	-	-	-	-	-	-	-
Mar-10	-	0.00%	-	-	-	-	-	-	-	-	-
Apr-10	-	0.00%	-	-	-	-	-	-	-	-	-
May-10	-	0.00%	-	-	-	-	-	-	-	-	-
Jun-10	-	0.00%	-	-	-	-	-	-	-	-	-
Jul-10	9,666	54.29%	49,115	681,019	202,014	-	383,438	1,264,177	240,256	93,963	14,949
Aug-10	8,138	45.71%	39,300	571,154	171,388	-	335,044	1,061,409	178,490	79,672	11,918
Sep-10	-	0.00%	-	-	-	-	-	-	-	-	-
Oct-10	-	0.00%	-	-	-	-	-	-	-	-	-
Nov-10	-	0.00%	-	-	-	-	-	-	-	-	-
Dec-10	-	0.00%	-	-	-	-	-	-	-	-	-
	17,804	100.00%	88,415	1,252,173	373,402	-	718,482	2,325,586	418,746	173,635	26,867
SSECT Factor			1.64%	23.29%	6.94%	0.00%	13.36%	43.25%	7.79%	3.23%	0.50%

100.00%  
100.00%

THIS SECTION OF THE FACTOR INPUT DEALS WITH THE DEMAND OF CHOLLA IV/APs

MONTH	MWH		Total	Proportion	CALIFORNIA	MONTANA	OREGON	WASHINGTON	WYOMING	UTAH	IDAHO	WYOMING	FERC
	Cholla IV	APS											
Jan-10	256,058	142,575	398,633	13.87%	23.1	0.0	376.2	113.2	146.5	427.0	64.2	35.3	4.1
Feb-10	229,102	68,850	297,952	10.37%	16.3	0.0	268.2	77.1	109.5	323.7	46.3	28.2	2.4
Mar-10	131,607	-	131,607	4.58%	6.9	0.0	107.7	29.8	46.4	131.0	18.6	10.9	1.3
Apr-10	247,929	-	247,929	8.63%	11.9	0.0	187.9	49.2	86.5	241.0	36.2	22.0	1.9
May-10	249,898	(77,900)	171,998	5.98%	8.9	0.0	110.2	34.8	57.3	214.9	32.8	13.6	1.9
Jun-10	242,678	(137,970)	104,708	3.64%	5.7	0.0	75.7	24.2	38.7	143.9	17.9	8.8	1.4
Jul-10	256,363	(142,380)	113,983	3.97%	6.2	0.0	94.0	29.1	42.4	168.5	17.6	9.4	1.8
Aug-10	257,680	(142,490)	115,190	4.01%	6.4	0.0	101.1	29.0	42.2	168.4	19.1	9.5	1.5
Sep-10	248,090	(68,780)	179,310	6.24%	9.0	0.0	136.7	39.9	63.1	242.0	29.8	14.9	1.8
Oct-10	256,659	77,895	334,554	11.64%	16.3	0.0	259.6	75.9	114.9	316.9	46.3	28.0	2.9
Nov-10	244,387	137,895	382,282	13.30%	20.4	0.0	297.8	91.9	144.6	459.7	59.8	36.2	3.4
Dec-10	253,472	142,755	396,227	13.78%	23.4	0.0	332.3	99.6	154.2	484.3	64.7	39.0	4.2
	2,873,922	450	2,874,372	100%	155	-	2,343	694	1,046	3,321	453	256	29

SSCCH Factor

1.86%

1.86%

SSGCH Factor

1.80%

1.80%

THIS SECTION OF THE FACTOR INPUT DEALS WITH THE DEMAND OF CHOLLA IV/APs

MONTH	MWH		Total	Proportion	CALIFORNIA	MONTANA	OREGON	WASHINGTON	WYOMING	UTAH	IDAHO	WYOMING	FERC
	Cholla IV	APS											
Jan-10	256,058	142,575	398,633	13.87%	11,996	-	192,742	59,322	102,805	289,800	38,720	25,188	2,789
Feb-10	229,102	68,850	297,952	10.37%	7,780	-	127,017	36,861	70,663	194,721	29,279	18,390	1,747
Mar-10	131,607	-	131,607	4.58%	3,547	-	56,733	15,862	31,787	88,338	11,869	7,899	810
Apr-10	247,929	-	247,929	8.63%	6,448	-	100,100	27,264	59,788	154,349	23,014	15,317	1,543
May-10	249,898	(77,900)	171,998	5.98%	4,777	-	68,066	19,089	39,973	111,234	18,420	10,161	1,165
Jun-10	242,678	(137,970)	104,708	3.64%	3,041	-	41,606	11,456	25,102	73,497	14,374	6,261	809
Jul-10	256,363	(142,380)	113,983	3.97%	3,587	-	49,743	14,755	28,007	92,338	17,549	6,863	1,092
Aug-10	257,680	(142,490)	115,190	4.01%	3,446	-	50,075	15,026	29,374	93,057	15,649	6,985	1,045
Sep-10	248,090	(68,780)	179,310	6.24%	4,675	-	70,916	21,440	43,553	124,478	17,895	10,625	1,247
Oct-10	256,659	77,895	334,554	11.64%	8,352	-	132,887	40,967	81,369	218,050	32,622	20,397	2,120
Nov-10	244,387	137,895	382,282	13.30%	9,963	-	160,993	48,978	96,754	247,164	36,640	24,503	2,314
Dec-10	253,472	142,755	396,227	13.78%	11,857	-	190,336	58,680	106,950	294,930	41,404	27,087	2,812
	2,873,922	450	2,874,372	100%	79,469	-	1,241,213	369,702	716,126	1,981,955	297,433	179,675	19,492

SSECH Factor

1.63%

1.63%

THIS SECTION OF THE FACTOR INPUT DEALS WITH THE DEMAND OF SEASONAL PURCHASE CONTRACTS

MONTH	Total	Proportion	CALIFORNIA	OREGON	WASHINGTON	MONTANA	WYOMING	UTAH	IDAHO	WYOMING	FERC	TOTAL
Jan-10	-	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Feb-10	-	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mar-10	-	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Apr-10	-	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
May-10	-	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jun-10	-	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jul-10	-	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aug-10	-	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sep-10	-	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oct-10	-	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nov-10	-	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dec-10	-	0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	-	0%	-	-	-	-	-	-	-	-	-	-
SSCC Factor			0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
SSGC Factor			0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

THIS SECTION OF THE FACTOR INPUT DEALS WITH THE DEMAND OF SEASONAL PURCHASE CONTRACTS

MONTH	Total	Proportion	CALIFORNIA	OREGON	WASHINGTON	MONTANA	WYOMING	UTAH	IDAHO	WYOMING	FERC	TOTAL
Jan-10	-	0%	-	-	-	-	-	-	-	-	-	-
Feb-10	-	0%	-	-	-	-	-	-	-	-	-	-
Mar-10	-	0%	-	-	-	-	-	-	-	-	-	-
Apr-10	-	0%	-	-	-	-	-	-	-	-	-	-
May-10	-	0%	-	-	-	-	-	-	-	-	-	-
Jun-10	-	0%	-	-	-	-	-	-	-	-	-	-
Jul-10	-	0%	-	-	-	-	-	-	-	-	-	-
Aug-10	-	0%	-	-	-	-	-	-	-	-	-	-
Sep-10	-	0%	-	-	-	-	-	-	-	-	-	-
Oct-10	-	0%	-	-	-	-	-	-	-	-	-	-
Nov-10	-	0%	-	-	-	-	-	-	-	-	-	-
Dec-10	-	0%	-	-	-	-	-	-	-	-	-	-
SSEC Factor	-	0%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

THIS SECTION OF THE FACTOR INPUT DEALS WITH THE MID COLUMBIA CONTRACTS

Contract	CAL	ORE	WASH	MON	WYO	UTAH	IDAHO	WYO	FERC-UP&L	OTHER	TOTAL
Wells	4,512	67,869	20,091	-	32,690	104,056	14,404	7,943	954	-	252,519
Rocky Reach	5,762	86,676	25,659	-	41,749	132,890	18,396	10,144	1,218	-	322,494
Wanapum	-	(9,873)	(2,923)	-	-	-	-	-	-	-	(12,795)
Priority	-	-	-	-	-	-	-	-	-	-	-
Displacement	-	439,837	-	-	-	-	-	-	-	-	439,837
Surplus	-	88,890	-	-	-	-	-	-	-	-	88,890
0	-	-	-	-	-	-	-	-	-	-	-
Total	10,274	673,399	42,827	-	74,439	236,946	32,800	18,087	2,172	-	1,090,944
MC Factor	0.9417%	61.7263%	3.9257%	0.0000%	6.8233%	21.7194%	3.0065%	1.6579%	0.1991%	0.0000%	100.0000%

PacifiCorp  
 Oregon General Rate Case December 2010 - Reply  
 13 MONTH AVERAGE FACTORS  
 CALCULATION OF INTERNAL FACTORS

DESCRIPTION OF FACTOR	TOTAL	California	Oregon	Washington	Wyo-PPL	Utah	Idaho	Wyo-UPL	FERC	Other	Non-Utility
<b>SITEAM:</b>											
STEAM PRODUCTION PLANT											
DGP	0	0	0	0	0	0	0	0	0	0	0
DGU	0	0	0	0	0	0	0	0	0	0	0
SG	4,847,374,045	86,606,887	1,302,823,105	385,672,710	627,518,836	1,997,464,007	276,502,854	152,472,069	18,313,577		
SSGCH	509,530,901	9,190,774	140,291,452	41,589,531	66,863,602	204,662,285	28,630,379	16,472,053	1,828,826		
	5,356,904,946	95,797,661	1,443,114,557	427,262,241	694,384,437	2,202,126,291	305,133,234	168,944,122	20,142,403		
<b>LESS ACCUMULATED DEPRECIATION</b>											
DGP	(890,379,750)	(15,908,205)	(239,306,334)	(70,841,484)	(115,264,483)	(366,899,993)	(50,788,848)	(28,006,513)	(3,363,891)		
DGU	(655,852,887)	(17,077,988)	(256,903,473)	(76,060,738)	(123,740,336)	(393,879,597)	(54,523,552)	(30,065,942)	(3,611,251)		
SG	(625,561,165)	(11,176,754)	(168,131,349)	(49,771,663)	(80,882,282)	(257,775,899)	(35,683,124)	(19,676,768)	(2,363,396)		
SSGCH	(164,118,231)	(2,960,319)	(45,187,416)	(13,395,851)	(21,537,191)	(65,921,050)	(9,221,751)	(5,305,594)	(689,059)		
	(2,635,912,032)	(47,123,274)	(709,528,572)	(210,959,737)	(341,524,292)	(1,084,476,479)	(150,217,275)	(63,054,807)	(9,927,597)		
TOTAL NET STEAM PLANT	2,720,992,914	48,674,387	733,585,985	217,202,504	352,860,146	1,117,649,812	154,915,959	85,889,315	10,214,806		
SNPPS	100.0000%	1.7888%	26.9602%	7.9825%	12.9681%	41.0751%	5.6934%	3.1565%	0.3754%		
SYSTEM NET PLANT PRODUCTION STEAM											



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DESCRIPTION OF FACTOR	TOTAL	California	Oregon	Washington	Wyo-PPL	Utah	Idaho	Wyo-UPL	FERC	Other	Non-Utility
NUCLEAR PRODUCTION PLANT											
DGP	0	0	0	0	0	0	0	0	0	0	0
DGU	0	0	0	0	0	0	0	0	0	0	0
SG	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
LESS ACCUMULATED DEPRECIATION											
DGP	0	0	0	0	0	0	0	0	0	0	0
DGU	0	0	0	0	0	0	0	0	0	0	0
SG	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
TOTAL NUCLEAR PLANT											
SNPPN	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
SYSTEM NET PLANT PRODUCTION NUCLEAR											
HYDRO:											
HYDRO PRODUCTION PLANT											
DGP	0	0	0	0	0	0	0	0	0	0	0
DGU	0	0	0	0	0	0	0	0	0	0	0
SG	645,856,753	11,539,370	173,586,171	51,386,446	83,609,656	266,139,070	36,840,820	20,315,147	2,440,073		
<b>TOTAL</b>	<b>645,856,753</b>	<b>11,539,370</b>	<b>173,586,171</b>	<b>51,386,446</b>	<b>83,609,656</b>	<b>266,139,070</b>	<b>36,840,820</b>	<b>20,315,147</b>	<b>2,440,073</b>		
LESS ACCUMULATED DEPRECIATION (incl hydro amortization)											
DGP	(150,967,866)	(2,697,307)	(40,575,458)	(12,011,490)	(19,543,608)	(62,209,533)	(8,611,476)	(4,748,629)	(570,363)		
DGU	(29,520,221)	(527,431)	(7,934,116)	(2,348,724)	(3,821,553)	(12,164,438)	(1,683,886)	(928,546)	(111,529)		
SG	(70,488,589)	(1,259,403)	(18,945,136)	(5,608,299)	(9,125,130)	(29,046,329)	(4,323,795)	(2,217,188)	(266,309)		
<b>TOTAL</b>	<b>(250,976,676)</b>	<b>(4,484,141)</b>	<b>(67,454,710)</b>	<b>(19,968,514)</b>	<b>(32,490,291)</b>	<b>(103,420,300)</b>	<b>(14,316,157)</b>	<b>(7,894,364)</b>	<b>(948,200)</b>		
TOTAL NET HYDRO PRODUCTION PLANT	394,880,077	7,055,229	106,131,461	31,417,932	51,119,366	162,718,770	22,524,663	12,420,783	1,491,873		
SNPPH	100.0000%	1.7867%	26.8769%	7.9563%	12.9455%	41.2071%	5.7042%	3.1455%	0.3778%		
SYSTEM NET PLANT PRODUCTION HYDRO											
OTHER:											
OTHER PRODUCTION PLANT (EXCLUDES EXPERIMENTAL)											
DGP	0	0	0	0	0	0	0	0	0	0	0
DGU	0	0	0	0	0	0	0	0	0	0	0
SG	2,746,243,466	49,066,483	738,104,674	218,489,986	355,516,097	1,131,648,275	156,650,622	86,381,909	10,375,420		
SSGCT	(80,562,299)	(1,362,123)	(20,222,729)	(6,128,436)	(9,583,953)	(36,159,782)	(4,541,434)	(2,192,067)	(371,755)		
<b>TOTAL</b>	<b>2,826,805,765</b>	<b>50,428,607</b>	<b>756,327,403</b>	<b>224,628,422</b>	<b>365,100,051</b>	<b>1,167,806,057</b>	<b>161,192,055</b>	<b>83,573,936</b>	<b>10,747,175</b>		
LESS ACCUMULATED DEPRECIATION											
DGP	0	0	0	0	0	0	0	0	0	0	0
DGU	(1,341,258)	(23,964)	(360,488)	(106,715)	(173,633)	(552,694)	(76,508)	(42,189)	(5,067)		
SG	(232,183,834)	(4,148,374)	(62,403,780)	(18,473,295)	(30,057,455)	(95,676,308)	(13,244,180)	(7,303,243)	(877,200)		
SSGCT	(21,911,899)	(370,460)	(5,500,320)	(1,666,855)	(2,606,711)	(9,834,991)	(1,235,211)	(596,219)	(101,113)		
<b>TOTAL</b>	<b>(255,436,991)</b>	<b>(4,542,818)</b>	<b>(68,264,568)</b>	<b>(20,246,864)</b>	<b>(32,637,999)</b>	<b>(106,063,993)</b>	<b>(14,555,898)</b>	<b>(7,941,651)</b>	<b>(983,380)</b>		
TOTAL NET OTHER PRODUCTION PLANT	2,571,368,774	45,885,789	690,062,815	204,381,557	332,262,251	1,061,744,064	146,636,157	80,632,345	9,765,795		
SNPPO	100.0000%	1.7845%	26.8364%	7.9484%	12.9216%	41.2910%	5.7026%	3.1358%	0.3797%		
SYSTEM NET PLANT PRODUCTION OTHER											

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DESCRIPTION OF FACTOR	TOTAL	California	Oregon	Washington	Wyo-PPL	Utah	Idaho	Wyo-UPL	FERC	Other	Non-Utility
TOTAL PRODUCTION PLANT											
DGP	0	0	0	0	0	0	0	0	0		
DGU	0	0	0	0	0	0	0	0	0		
SG	8,239,474,265	147,212,740	2,214,513,950	655,559,142	1,066,644,590	3,395,251,351	469,994,296	259,169,124	31,129,071		
SSGCH	509,530,901	9,190,774	140,291,452	41,589,531	66,865,602	204,662,285	28,630,379	16,472,053	1,828,826		
SSGCT	80,562,299	1,362,123	20,222,729	6,128,436	9,583,953	36,159,782	4,541,434	2,192,087	371,755		
	8,829,567,465	157,765,637	2,375,028,129	703,277,109	1,143,094,144	3,636,073,418	503,165,109	277,833,265	33,323,682		
LESS ACCUMULATED DEPRECIATION											
DGP	(344,575)	(6,156)	(92,611)	(27,416)	(44,607)	(141,990)	(19,655)	(10,838)	(1,302)		
DGU	0	0	0	0	0	0	0	0	0		
SG	(2,955,950,994)	(52,813,278)	(794,467,523)	(235,184,953)	(382,663,873)	(1,218,062,741)	(168,612,713)	(92,978,169)	(11,167,704)		
SSGCH	(164,118,231)	(2,860,318)	(45,187,416)	(13,395,851)	(21,537,191)	(65,921,050)	(9,221,751)	(5,305,594)	(589,059)		
SSGCT	(21,911,899)	(370,460)	(5,500,320)	(1,966,855)	(2,606,711)	(9,834,991)	(1,235,211)	(596,219)	(101,113)		
	(3,142,325,700)	(56,150,232)	(845,247,870)	(250,275,115)	(406,852,392)	(1,293,960,772)	(179,089,330)	(98,890,621)	(11,858,177)		
TOTAL NET PRODUCTION PLANT	5,687,241,765	101,615,405	1,529,780,260	453,001,994	736,241,762	2,342,112,646	324,076,779	178,942,444	21,470,475		
SNPP	100.0000%	1.7867%	26.8985%	7.9652%	12.9455%	41.1819%	5.6983%	3.1464%	0.3775%		
SYSTEM NET PRODUCTION PLANT											
TRANSMISSION:											
TRANSMISSION PLANT											
DGP	0	0	0	0	0	0	0	0	0		
DGU	0	0	0	0	0	0	0	0	0		
SG	3,238,150,763	57,855,275	870,314,028	257,637,717	419,196,162	1,334,349,183	184,709,890	101,854,642	12,233,866		
	3,238,150,763	57,855,275	870,314,028	257,637,717	419,196,162	1,334,349,183	184,709,890	101,854,642	12,233,866		
LESS ACCUMULATED DEPRECIATION											
DGP	(393,223,544)	(7,025,632)	(105,686,236)	(31,286,133)	(50,904,918)	(162,036,160)	(22,430,172)	(12,368,678)	(1,485,615)		
DGU	(394,382,155)	(7,046,333)	(105,997,635)	(31,378,316)	(51,054,907)	(162,513,590)	(22,496,261)	(12,405,121)	(1,489,992)		
SG	(400,388,744)	(7,153,651)	(107,612,019)	(31,856,220)	(51,832,492)	(164,988,733)	(22,838,888)	(12,594,056)	(1,512,685)		
	(1,187,994,442)	(21,225,616)	(319,295,890)	(94,520,669)	(153,792,318)	(489,538,483)	(67,765,320)	(37,367,855)	(4,488,292)		
TOTAL NET TRANSMISSION PLANT	2,050,156,321	36,629,659	551,018,139	163,117,048	265,403,845	844,810,700	116,944,570	64,486,787	7,745,574		
SNPT	100.0000%	1.7867%	26.8769%	7.9563%	12.9455%	41.2071%	5.7042%	3.1455%	0.3778%		
SYSTEM NET PLANT TRANSMISSION											
DISTRIBUTION:											
DISTRIBUTION PLANT - PACIFIC POWER											
S	2,769,936,569	219,166,336	1,690,271,132	392,966,425	467,512,676	0	0	0	0		
LESS ACCUMULATED DEPRECIATION	(1,208,680,560)	(101,206,250)	(741,765,252)	(177,488,505)	(188,218,553)	0	0	0	0		
S	1,561,256,009	117,978,086	948,505,880	215,477,920	279,294,122	0	0	0	0		
DNPDP	100.0000%	7.5566%	60.7527%	13.8016%	17.8891%	0.0000%	0.0000%	0.0000%	0.0000%		
DIVISION NET PLANT DISTRIBUTION PACIFIC POWER											

DESCRIPTION OF FACTOR	TOTAL	California	Oregon	Washington	Wyo-PPL	Utah	Idaho	Wyo-UPL	FERC	Other	Non-Utility
DISTRIBUTION PLANT - ROCKY MOUNTAIN POWER											
S	2,649,113,440	0	0	0	0	2,305,168,422	267,466,465	76,478,552	0		
LESS ACCUMULATED DEPRECIATION	(870,402,644)	0	0	0	(719,082,700)	(114,028,731)	(153,437,734)	(37,291,213)	0		
S	1,778,710,796	0	0	0	1,586,085,722	8,626,339	2,203,161	0	0.0000%		
DNDPU	100.0000%	0.0000%	0.0000%	0.0000%	0.0000%	89.1705%	8.6263%	2.2031%	0.0000%		
DIVISION NET PLANT DISTRIBUTION R.M.P.											
TOTAL NET DISTRIBUTION PLANT	3,339,966,804	117,978,086	948,505,880	215,477,920	279,294,122	1,586,085,722	153,437,734	39,187,340	0		
DNDP & SNPD	100.0000%	3.5323%	28.3987%	6.4515%	8.3622%	47.4681%	4.5940%	1.1733%	0.0000%		
SYSTEM NET PLANT DISTRIBUTION											
GENERAL:											
GENERAL PLANT											
S	501,991,764	15,385,769	169,150,222	44,251,434	61,439,392	166,206,171	34,708,130	10,850,646	0		
DGP	0	0	0	0	0	0	0	0	0		
DGU	0	0	0	0	0	0	0	0	0		
SE	781,793	12,808	195,463	57,515	113,367	320,895	50,186	28,310	3,249		
SG	181,134,195	3,236,282	48,683,228	14,411,621	23,446,803	74,640,214	10,332,217	5,697,498	684,332		
SO	257,492,301	6,353,865	72,763,772	19,984,343	30,082,554	106,644,429	14,251,916	6,747,134	684,287		
CN	22,491,824	573,907	6,965,280	1,577,380	1,509,716	10,782,181	889,013	194,347	0		
DEU	0	0	0	0	0	0	0	0	0		
SSGCT	116,128	1,963	29,150	8,834	13,815	52,123	6,546	3,160	536		
SSGCH	4,142,697	74,725	1,140,627	338,140	543,645	1,663,989	232,777	133,925	14,869		
Remove Capital Lease	(32,384,116)	(540,136)	(12,864,111)	(1,988,896)	(4,501,903)	(10,458,275)	(1,422,125)	(728,492)	(80,178)		
S	935,566,585	25,099,181	286,063,632	78,640,371	112,649,389	349,851,727	59,046,661	22,926,528	1,287,095		
LESS ACCUMULATED DEPRECIATION											
S	(183,162,204)	(5,422,641)	(61,483,655)	(18,327,896)	(24,495,954)	(56,006,661)	(13,304,185)	(4,121,191)	0		
DGP	(7,296,953)	(130,373)	(1,961,193)	(580,569)	(944,630)	(3,006,865)	(416,231)	(229,523)	(27,568)		
DGU	(19,863,584)	(247,697)	(3,726,099)	(1,103,031)	(1,794,716)	(5,712,766)	(790,804)	(436,073)	(52,377)		
SE	(262,896)	(4,307)	(65,729)	(19,341)	(38,122)	(107,909)	(16,676)	(9,520)	(1,093)		
SG	(45,793,578)	(818,183)	(12,307,887)	(3,643,465)	(5,926,227)	(18,870,222)	(2,612,147)	(1,440,417)	(173,010)		
SO	(89,127,612)	(2,199,308)	(25,186,234)	(6,917,321)	(10,412,685)	(36,913,563)	(4,933,116)	(2,335,453)	(229,934)		
CN	(8,377,535)	(213,763)	(2,594,360)	(587,527)	(562,324)	(4,016,041)	(331,131)	(72,388)	0		
SSGCT	(33,832)	(572)	(8,492)	(2,574)	(4,025)	(15,185)	(1,907)	(921)	(156)		
SSGCH	(2,363,052)	(42,624)	(650,630)	(192,880)	(310,103)	(949,162)	(132,779)	(76,392)	(6,482)		
S	(350,281,245)	(9,079,469)	(107,984,280)	(31,374,624)	(44,490,786)	(125,598,434)	(22,539,176)	(8,721,858)	(452,620)		
TOTAL NET GENERAL PLANT	585,285,340	16,019,712	178,079,352	47,265,748	68,158,604	224,253,293	36,509,485	14,204,670	794,475		
SNPD	100.0000%	2.7371%	30.4261%	8.0757%	11.6454%	38.3152%	6.2379%	2.4270%	0.1357%		
SYSTEM NET GENERAL PLANT											

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<b>MINING:</b>											
GENERAL MINING PLANT											
SE	469,345,489	7,689,205	117,345,284	34,528,630	68,059,265	192,647,674	30,128,934	16,995,951	1,950,547		
LESS ACCUMULATED DEPRECIATION	(168,106,499)	(2,754,059)	(42,029,817)	(12,367,195)	(24,376,936)	(69,001,039)	(10,791,346)	(6,087,477)	(698,632)		
SE	301,238,989	4,935,145	75,315,467	22,161,435	43,682,329	123,646,636	19,337,588	10,908,474	1,251,915		
SNPM	100.0000%	1.6383%	25.0019%	7.3568%	14.5009%	41.0460%	6.4194%	3.6212%	0.4156%		
SYSTEM NET PLANT MINING											
<b>INTANGIBLE:</b>											
INTANGIBLE PLANT											
S	4,507,682	0	540,701	1,244	246,093	885,391	2,834,252	0	0		
DGP	0	0	0	0	0	0	0	0	0		
DGU	0	0	0	0	0	0	0	0	0		
SE	3,628,256	59,441	907,133	266,922	526,129	1,489,255	232,911	131,387	15,079		
CN	116,718,484	2,975,216	36,145,444	8,185,616	7,834,479	55,952,768	4,613,421	1,008,539	0		
SG	203,015,418	3,627,229	54,564,219	16,152,561	26,281,446	83,656,839	11,580,361	6,385,763	767,001		
SO	396,534,278	9,784,857	112,065,116	30,775,569	46,326,682	164,230,619	21,947,737	10,390,486	1,022,982		
SSGCT	0	0	0	0	0	0	0	0	0		
SSGCH	0	0	0	0	0	0	0	0	0		
	724,404,119	16,449,743	204,212,613	55,381,933	81,214,829	306,215,073	41,208,683	17,916,174	1,805,072		
LESS ACCUMULATED AMORTIZATION											
S	(1,434,365)	0	(580,763)	(365)	(41,965)	(8,778)	(802,515)	0	0		
DGP	112,088	2,003	30,126	8,918	14,510	46,168	6,394	3,526	423		
DGU	(313,621)	(5,603)	(84,292)	(24,953)	(40,600)	(129,234)	(17,890)	(9,865)	(1,165)		
SE	(1,462,456)	(23,959)	(365,642)	(107,589)	(212,069)	(600,280)	(93,880)	(52,966)	(6,078)		
CN	(93,562,892)	(2,387,373)	(28,974,607)	(6,561,685)	(6,280,209)	(44,852,369)	(3,698,172)	(608,456)	0		
SG	(62,855,561)	(1,123,025)	(16,893,616)	(5,000,991)	(8,136,993)	(25,900,977)	(3,585,393)	(1,977,095)	(237,471)		
SO	(279,823,441)	(6,904,907)	(79,074,244)	(21,717,495)	(32,691,478)	(115,893,217)	(15,487,920)	(7,332,283)	(721,898)		
SSGCT	0	0	0	0	0	0	0	0	0		
SSGCH	0	0	0	0	0	0	0	0	0		
	(438,366,547)	(10,443,339)	(125,950,273)	(33,406,305)	(47,392,252)	(187,349,241)	(23,680,853)	(10,177,961)	(965,302)		
TOTAL NET INTANGIBLE PLANT	285,037,572	6,006,404	78,262,339	21,975,628	33,822,577	118,865,832	17,527,830	7,736,193	838,769		
SNPI	100.0000%	2.1072%	27.4569%	7.7097%	11.8660%	41.7018%	6.1493%	2.7148%	0.2943%		
SYSTEM NET INTANGIBLE PLANT											

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DESCRIPTION OF FACTOR	TOTAL	California	Oregon	Washington	Wyo-PPL	Utah	Idaho	Wyo-UPL	FERC	Other	Non-Utility
<b>GROSS PLANT:</b>											
PRODUCTION PLANT	8,829,567,465	157,765,637	2,375,028,130	703,277,109	1,143,094,144	3,636,073,418	503,166,109	277,833,265	33,329,652		
TRANSMISSION PLANT	3,238,150,763	57,855,275	870,314,028	257,637,717	419,196,162	1,334,349,183	184,709,890	101,854,642	12,233,866		
DISTRIBUTION PLANT	5,419,050,009	219,186,336	1,690,271,132	392,966,425	467,512,676	2,305,168,422	267,466,465	76,478,552	0		
GENERAL PLANT	1,404,912,074	32,786,386	403,408,915	113,169,001	160,706,635	542,499,401	89,177,595	39,922,479	3,237,642		
INTANGIBLE PLANT	724,404,119	16,449,743	204,212,613	55,381,933	81,214,829	306,215,073	41,208,683	17,916,174	1,605,072		
TOTAL GROSS PLANT	19,616,084,429	484,045,377	5,543,234,819	1,522,432,185	2,291,726,466	8,124,305,498	1,085,728,743	514,005,111	50,606,232		
GPS	100.0000%	2.4676%	28.2586%	7.7611%	11.6829%	41.4166%	5.5349%	2.6203%	0.2580%		
<b>GROSS PLANT-SYSTEM FACTOR</b>											
ACCUMULATED DEPRECIATION AND AMORTIZATION											
PRODUCTION PLANT	(3,142,325,700)	(56,150,232)	(845,247,870)	(250,275,115)	(406,852,382)	(1,293,960,772)	(179,089,330)	(98,890,821)	(11,859,177)		
TRANSMISSION PLANT	(1,187,994,442)	(21,225,616)	(319,295,890)	(94,520,669)	(153,792,318)	(489,538,483)	(67,766,320)	(37,367,855)	(4,485,292)		
DISTRIBUTION PLANT	(2,079,983,205)	(101,208,250)	(741,765,252)	(177,488,505)	(188,216,553)	(719,082,700)	(114,028,731)	(37,291,213)	0		
GENERAL PLANT	(618,387,745)	(11,833,528)	(150,014,096)	(43,741,818)	(68,867,722)	(194,599,472)	(33,330,522)	(14,809,335)	(1,191,252)		
INTANGIBLE PLANT	(439,566,547)	(10,443,339)	(129,950,273)	(33,406,305)	(47,392,292)	(187,349,241)	(23,680,853)	(10,177,981)	(966,302)		
	(7,367,157,638)	(200,860,966)	(2,182,273,381)	(599,432,412)	(865,123,227)	(2,884,530,669)	(417,894,756)	(198,537,205)	(18,505,022)		
NET PLANT	12,248,926,791	283,184,411	3,360,961,438	922,999,773	1,426,603,239	5,239,774,829	667,833,986	315,467,907	32,101,209		
SNP	100.0000%	2.3119%	27.4388%	7.5354%	11.6468%	42.7774%	5.4522%	2.5759%	0.2621%		
<b>SYSTEM NET PLANT FACTOR (SNP)</b>											
NON-UTILITY RELATED INTEREST PERCENTAGE	0.0000%										
INT	100.0000%	2.3119%	27.4388%	7.5354%	11.6468%	42.7774%	5.4522%	2.5755%	0.2621%		
<b>INTEREST FACTOR SNP - NON-UTILITY</b>											
TOTAL GROSS PLANT (LESS SO FACTOR)	18,962,057,850	467,906,654	5,358,415,931	1,471,672,252	2,215,317,231	7,853,430,249	1,049,529,089	496,867,491	48,918,952		
SO	100.0000%	2.4676%	28.2586%	7.7611%	11.6829%	41.4166%	5.5349%	2.6203%	0.2580%		
<b>SYSTEM OVERHEAD FACTOR (SO)</b>											

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DESCRIPTION OF FACTOR  
IBT

INCOME BEFORE TAXES

INCOME BEFORE STATE TAXES

Interest Synchronization

INCOME BEFORE TAXES (FACTOR)

See Calculation of EXCTAX

DITEXP:

Pacific Power  
Production S  
Transmission S  
Distribution S  
General S  
Mining Plant S  
Non-Utility NUTIL

Total Pacific Power

Rocky Mountain Power

Production S  
Transmission S  
Distribution S  
General S  
Mining Plant S  
Non-Utility NUTIL

Total Rocky Mountain Power

PC (Post Merger)

Prod / Other Prod S  
Cholla Unit 4 S  
Gadsby Unit 4, 5 & 6 S  
Hydro-PPL S  
Hydro-UPL S  
Transmission S  
Distribution S  
General/ Intangibles S  
Mining S  
WCA - CAEE 2007+ S  
WCA - CAGE 2007+ S  
WCA - CAGW 2007+ S  
WCA - CAGW 2007+ -Marengo S  
WCA CAGW 2007+ -Goodnoe S  
WCA - General 2007+ S  
WCA - JBG 2007+ S  
Non Utility NUTIL

Total PC (Post Merger)

Total Deferred Taxes

Percentage of Total (DITEXP)

	TOTAL	California	Oregon	Washington	Wyo-PPL	Utah	Idaho	Wyo-UPL	FERC	Other	Non-Utility
380,266,705	12,727,950	111,961,065	26,525,181	70,747,236	147,385,279	14,536,754	(3,038,716)	22,453,593	11,302,664		
(1,849,196)	0	0	0	0	0	0	0	(1,853,540)	4,344		
378,437,509	12,727,950	111,961,065	26,525,181	70,747,236	147,385,279	14,536,754	(3,038,716)	20,600,053	11,307,008		
100.0000%	3.3633%	29.585%	7.0091%	18.6946%	38.9457%	3.8413%	-9.0674%	-8.8030%	5.4434%	2.9878%	

(1,696,428)	(73,668)	(845,648)	(278,891)	(399,936)	(96,285)	0	0	0	0	0	0
(780,928)	(29,108)	(424,537)	(110,704)	(184,633)	(31,946)	0	0	0	0	0	0
(4,656,833)	(287,208)	(3,014,435)	(457,203)	(897,987)	0	0	0	0	0	0	0
54,412	(4)	35,403	(9)	12,678	6,170	0	156	18	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
3,332,055	0	0	0	0	0	0	0	0	0	0	3,332,055
(3,747,722)	(389,988)	(4,249,217)	(846,807)	(1,469,878)	(124,061)	0	156	18	0	0	3,332,065

(4,807,347)	0	0	0	0	(3,566,573)	(892,453)	(307,664)	(40,657)	0	0	0
(2,237,946)	0	0	0	0	(1,846,274)	(280,880)	(97,630)	(13,162)	0	0	0
(6,096,603)	15	134	31	30	(4,988,136)	(796,571)	(302,106)	0	0	0	0
(161,009)	(1,346)	(7,264)	(4,418)	(3,017)	(156,771)	6,771	4,942	94	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
(13,302,905)	(1,331)	(7,130)	(4,387)	(2,987)	(10,567,754)	(1,963,133)	(702,458)	(53,725)	0	0	0

28,253,257	493,894	7,499,779	2,323,892	3,651,901	11,597,530	1,662,597	917,315	106,349	0	0	0
3,193,349	55,296	866,611	0	422,678	1,269,589	180,851	103,994	11,589	0	0	262,791
40,105	954	13,308	0	6,556	12,847	657	1,542	227	0	0	4,014
368,042	4,838	65,610	32,685	52,588	160,455	30,772	18,954	2,140	0	0	0
265,422	4,411	20,969	20,969	34,786	109,190	15,238	8,583	1,024	0	0	0
19,682,844	315,250	5,909,595	1,425,516	2,765,037	7,654,367	912,822	621,162	79,095	0	0	0
9,580,699	961,429	3,655,281	736,013	3,001,739	134,862	159,382	159,382	0	0	0	0
(4,520,661)	(126,663)	(661,848)	(416,836)	(474,791)	(1,785,447)	(220,153)	(79,014)	3,529	0	0	(2,898)
959,588	17,132	228,379	(148,746)	(316,907)	(826,503)	(105,247)	(49,770)	(7,084)	0	0	0
22,283,384	406,378	6,275,007	15,640,599	133,431	408,454	67,130	34,076	3,840	0	0	67,146
70,277,164	1,189,505	18,992,954	15,640,599	9,141,716	28,709,306	4,048,314	2,214,164	266,984	0	0	1,856,054
0	0	0	0	0	0	0	0	0	0	0	(9,926,378)
0	0	0	0	0	0	0	0	0	0	0	0
4,506,669	100,611	1,324,907	402,981	551,281	1,813,898	225,355	126,447	12,624	0	0	(49,435)
2,523,649	49,436	749,949	486,295	360,928	1,013,301	131,813	87,377	10,543	0	0	(365,983)
34,493	0	0	0	0	0	0	0	0	0	0	34,493
154,899,053	3,435,625	43,194,365	20,503,368	20,274,179	61,873,664	8,273,085	4,885,876	579,077	0	0	(8,120,206)

137,948,426	3,044,306	38,938,018	19,652,174	18,801,314	51,181,869	6,309,952	4,183,574	525,370	0	0	(4,788,151)
100.0000%	2.2084%	28.2470%	14.2564%	13.6381%	37.1291%	4.5775%	3.0349%	0.3811%	0.0000%	0.0000%	-3.4735%

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13 MONTH AVERAGE FACTORS  
CALCULATION OF INTERNAL FACTORS

DESCRIPTION OF FACTOR	TOTAL	California	Oregon	Washington	Wyo-PPL	Utah	Idaho	Wyo-JPL	FERC	Other	Non-Utility
<b>DITBAL:</b>											
Pacific Power											
Production	50,913,333	1,807,410	27,825,329	7,015,227	12,142,322	2,123,045	0	0	0	0	0
Transmission	22,470,544	837,230	12,354,765	3,224,211	5,115,760	938,578	0	0	0	0	0
Distribution	40,113,266	3,458,818	23,920,470	5,506,626	7,227,352	0	0	0	0	0	0
General	(565,405)	16	(367,488)	36	(132,466)	(63,692)	(3)	(1,595)	(193)	0	0
Mining Plant	0	0	0	0	0	0	0	0	0	0	0
Non-Utility Plant	(1,068,812)	0	0	0	0	0	0	0	0	0	(1,068,812)
<b>Total Pacific Power</b>	<b>111,862,926</b>	<b>6,103,474</b>	<b>63,733,076</b>	<b>15,746,100</b>	<b>24,352,948</b>	<b>2,997,931</b>	<b>(3)</b>	<b>(1,595)</b>	<b>(193)</b>	<b>0</b>	<b>(1,068,812)</b>
<b>Rocky Mountain Power</b>											
Production	85,466,215	0	0	0	0	67,169,400	13,195,478	4,509,531	591,806	0	0
Transmission	51,357,211	0	0	0	0	42,995,725	6,035,517	2,057,479	278,490	0	0
Distribution	44,330,856	0	0	0	0	36,097,833	6,016,746	2,216,277	0	0	0
General	(914,548)	(968)	(94,916)	(3,664)	(35,956)	(185,256)	(414,367)	(172,871)	(6,550)	0	0
Mining Plant	0	0	0	0	0	0	0	0	0	0	0
Non-Utility Plant	0	0	0	0	0	0	0	0	0	0	0
<b>Total Rocky Mountain Power</b>	<b>180,249,734</b>	<b>(968)</b>	<b>(94,916)</b>	<b>(3,664)</b>	<b>(35,956)</b>	<b>146,077,702</b>	<b>24,833,374</b>	<b>8,610,416</b>	<b>863,746</b>	<b>0</b>	<b>0</b>
<b>Pacificorp</b>											
Prod / Other Prod	407,522,109	7,743,193	121,260,834	32,735,895	52,032,220	161,369,589	22,159,310	8,776,645	1,444,423	0	0
Cholla Unit 4	(25,902,812)	(616,887)	(8,626,550)	(2,990,632)	(3,014,425)	(9,408,353)	(1,320,919)	(317,160)	(60,415)	0	452,549
Gadsby Unit 4, 5 & 6	534,003	10,017	138,273	0	68,373	228,233	28,711	16,329	2,359	0	41,708
Hydro-PPL	36,201,206	696,470	11,529,172	2,833,569	4,486,110	14,164,352	1,719,683	665,984	105,856	0	0
Hydro-JPL	9,066,566	207,064	2,890,163	817,357	1,088,761	3,430,471	447,247	161,814	23,689	0	0
Transmission	279,409,323	5,614,119	83,353,451	21,652,812	34,788,533	112,018,132	14,955,119	6,126,976	900,161	0	0
Distribution	430,443,716	19,270,578	129,143,801	25,949,042	31,631,404	197,185,681	21,956,784	5,304,426	203,250	0	0
General/ Intangibles	123,818,586	2,998,852	39,462,102	10,862,032	14,716,638	46,228,300	6,842,537	2,492,255	39,962	0	12,620
Mining	10,060,759	123,181	3,419,491	561,224	1,675,256	3,611,572	416,367	233,706	43,723	0	796,110
WCA - CAEE 2007+	9,879,252	135,083	2,700,623	0	1,540,580	3,770,304	528,109	364,710	412,929	0	8,744,096
WCA - CAGE 2007+	106,053,033	2,022,402	29,580,586	0	14,169,783	44,172,009	5,594,487	3,356,731	1,367,032	0	(50,387,862)
WCA - CAGW 2007+	350,143,693	6,259,882	97,510,882	74,022,191	46,722,867	144,384,074	19,381,907	11,082,720	0	0	0
WCA_CAGW 2007+ -Marengo	0	0	0	0	0	0	0	0	0	0	0
WCA_CAGW 2007+ -Goodhoe	50,230,524	1,105,143	15,738,686	3,386,074	6,460,236	20,004,181	2,484,220	1,407,673	135,809	0	(431,498)
WCA - General 2007+	10,900,799	212,979	3,083,226	2,120,938	1,478,943	4,532,836	572,837	352,584	43,139	0	(1,496,683)
WCA - JBG 2007+	(487,177)	0	0	0	0	0	0	0	0	0	(497,177)
Non Utility											
<b>Total PC (Post Merger)</b>	<b>1,759,943,580</b>	<b>45,782,086</b>	<b>531,184,750</b>	<b>171,950,502</b>	<b>207,845,279</b>	<b>745,691,381</b>	<b>95,768,409</b>	<b>40,025,373</b>	<b>4,661,937</b>	<b>0</b>	<b>(42,866,137)</b>
<b>Total Deferred Taxes</b>	<b>2,092,056,240</b>	<b>51,884,592</b>	<b>594,822,910</b>	<b>187,692,938</b>	<b>232,162,271</b>	<b>894,767,014</b>	<b>120,601,780</b>	<b>48,634,194</b>	<b>5,525,490</b>	<b>0</b>	<b>(44,034,949)</b>
<b>Percentage of Total (DITBAL)</b>	<b>100.0000%</b>	<b>2.4801%</b>	<b>28.4325%</b>	<b>8.9177%</b>	<b>11.0973%</b>	<b>42.7697%</b>	<b>5.7647%</b>	<b>2.3247%</b>	<b>0.2641%</b>	<b>0.0000%</b>	<b>-2.1049%</b>

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 CALCULATION OF INTERNAL FACTORS

DESCRIPTION OF FACTOR  
 BADDEBT

	TOTAL	California	Oregon	Washington	Wyo-PPL	Utah	Idaho	Wyo-JPL	FERC	Other	Non-Utility
Account 904 Balance	12,407,643	(18,969)	5,043,849	1,737,487	708,409	4,537,593	399,239	34	0	0	0
Bad Debts Expense Allocation Factor - BADDEBT	100.0000%	-0.1529%	40.6511%	14.0034%	5.7095%	36.5710%	3.2177%	0.0003%	0.0000%	0.0000%	0.0000%
<b>Customer Factors</b>											
Total Electric Customers	1,874,359	47,827	580,452	131,451	125,812	898,534	74,086	16,196	0	0	0
CN											
Customer System factor - CN		2.5516%	30.9681%	7.0131%	6.7123%	47.9382%	3.9526%	0.8641%	0.0000%	0.0000%	0.0000%
Pacific Power Customers	885,542	47,827	580,452	131,451	125,812	0	0	0	0	0	0
CNP											
Customer Service Pacific Power factor - CNP		5.40%	65.55%	14.84%	14.21%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Rocky Mountain Power Customers	988,816	0	0	0	0	898,534	74,086	16,196	0	0	0
CNU											
Customer Service R.M.P. factor - CNU		0.00%	0.00%	0.00%	0.00%	90.87%	7.49%	1.64%	0.00%	0.00%	0.00%
CIAC											
TOTAL NET DISTRIBUTION PLANT	3,339,966,804	117,975,086	948,505,880	2,154,779,920	279,294,122	1,586,085,722	153,437,734	39,187,340	0	0	0
CIAC FACTOR: Same as (SNPD Factor)	100%	3.53%	28.40%	6.45%	8.36%	47.49%	4.59%	1.17%	0.00%	0.00%	0.00%



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 CALCULATION OF INTERNAL FACTORS

**DESCRIPTION OF FACTOR  
 EXCTAX**

**Excise Tax (Superfund)**

Total Taxable Income

Less Other Electric Items:

- 419 OTH
- 432 OTH
- 40910 OTH
- SCHMDT OTH
- SCHMDT (Steam) OTH

Total Taxable Income Excluding Other

**Excise Tax (Superfund) Factor - EXCTAX**

**Trojan Allocators**

Premierger

Dec 1991 Plant

Dec 1992 Plant

Average

Dec 1991 Reserve

Dec 1992 Reserve

Average

Postmerger

Dec 1991 Plant

Dec 1992 Plant

Average

Dec 1991 Reserve

Dec 1992 Reserve

Average

Net Plant

**Division Net Plant Nuclear Pacific Power DNPPIP**

**Division Net Plant Nuclear Rocky Mount DNPPIP**

**System Net Nuclear Plant**

	TOTAL	California	Oregon	Washington	Wyo-PPL	Utah	Idaho	Wyo-UPL	FERC	Other	Non-Utility
363,988,011	12,170,379	107,122,937	25,388,431	67,665,994	141,051,114	13,921,785	(32,763,633)	(2,900,804)	21,533,931	10,797,878	
0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	
363,988,011	12,170,379	107,122,937	25,388,431	67,665,994	141,051,114	13,921,785	(32,763,633)	(2,900,804)	21,533,931	10,797,878	
100.0000%	3.3436%	29.430%	6.9751%	18.5902%	38.7516%	3.8248%	-9.0013%	-0.7970%	5.9161%	2.9665%	
<b>Trojan Allocators</b>											
Premierger											
16,918,976	303,853	4,570,841	1,353,099	2,201,595	7,007,928	970,086	534,935	64,252	0	0	
17,094,202	303,853	4,570,841	1,353,099	2,201,595	7,007,928	970,086	534,935	64,252	0	0	
Average	303,853	4,570,841	1,353,099	2,201,595	7,007,928	970,086	534,935	64,252	0	0	
(7,851,432)	(145,484)	(2,188,512)	(647,862)	(1,054,121)	(3,355,386)	(464,476)	(256,126)	(30,764)	0	0	
(8,634,030)	(145,484)	(2,188,512)	(647,862)	(1,054,121)	(3,355,386)	(464,476)	(256,126)	(30,764)	0	0	
Average	(145,484)	(2,188,512)	(647,862)	(1,054,121)	(3,355,386)	(464,476)	(256,126)	(30,764)	0	0	
Postmerger											
4,284,960	69,418	1,044,244	309,126	502,971	1,601,015	221,524	122,210	14,679	0	0	
3,485,613	69,418	1,044,244	309,126	502,971	1,601,015	221,524	122,210	14,679	0	0	
Average	69,418	1,044,244	309,126	502,971	1,601,015	221,524	122,210	14,679	0	0	
(129,394)	(3,305)	(49,723)	(14,719)	(23,950)	(76,234)	(10,553)	(5,819)	(699)	0	0	
(240,609)	(3,305)	(49,723)	(14,719)	(23,950)	(76,234)	(10,553)	(5,819)	(699)	0	0	
Average	(3,305)	(49,723)	(14,719)	(23,950)	(76,234)	(10,553)	(5,819)	(699)	0	0	
12,564,143	224,481	3,376,850	989,644	1,626,496	5,177,323	716,681	395,200	47,468	0	0	
100.0000%	1.7867%	26.8769%	7.9563%	12.9455%	41.2071%	5.7042%	3.1455%	0.3778%	0.0000%	0.0000%	
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
100.0000%	1.7867%	26.8769%	7.9563%	12.9455%	41.2071%	5.7042%	3.1455%	0.3778%	0.0000%	0.0000%	

PacificCorp  
 Oregon General Rate Case December 2010 - Reply  
 13 MONTH AVERAGE FACTORS  
 CALCULATION OF INTERNAL FACTORS

**DESCRIPTION OF FACTOR**

**Account 182.22**

	TOTAL	California	Oregon	Washington	Wyo-PPL	Utah	Idaho	Wyo-UPL	FERC	Other	Non-Utility
(101) SG	17,094,202	305,418	4,594,389	1,360,070	2,212,937	7,044,031	975,084	537,691	64,583	0	0
(108) SG	(8,434,030)	(150,689)	(2,266,804)	(671,039)	(1,091,631)	(3,475,422)	(481,092)	(265,289)	(31,864)	0	0
(101) SG	3,465,613	62,277	936,824	277,327	451,231	1,436,321	198,626	109,638	13,169	0	0
(108) SG	(240,609)	(4,299)	(64,668)	(19,144)	(31,148)	(99,148)	(13,725)	(7,569)	(909)	0	0
(107) SG	1,778,549	31,777	478,019	141,507	230,243	732,889	101,452	55,943	6,719	0	0
(120) SE	1,975,759	32,369	493,977	145,352	286,503	810,971	126,831	71,546	8,211	0	0
(228) SG	7,220,849	129,013	1,940,739	574,514	934,778	2,975,505	411,890	227,129	27,281	27,281	0
(228) SG	1,472,376	26,307	395,729	117,147	190,607	606,724	83,987	46,313	5,563	0	0
(228) SNNP	3,531,000	63,088	949,023	280,938	457,107	1,455,024	201,415	111,066	13,340	0	0
(228) SE	1,743,025	28,556	435,789	128,230	252,754	715,443	111,891	63,118	7,244	0	0
<b>Total Acct 182.22</b>	<b>29,626,734</b>	<b>523,815</b>	<b>7,893,016</b>	<b>2,334,902</b>	<b>3,893,181</b>	<b>12,202,337</b>	<b>1,716,557</b>	<b>949,588</b>	<b>113,336</b>	<b>27,281</b>	<b>0</b>
Revised Study	112,680	2,013	30,285	8,965	14,587	46,432	6,427	3,544	426	0	0
(228) SE	941,950	15,432	235,505	69,297	136,591	386,633	60,467	34,110	3,915	0	0
December 1993 Adj.	1,054,630	17,445	265,790	78,262	151,178	433,065	66,895	37,654	4,340	0	0
Adjusted Acct 182.22	30,681,364	541,260	8,158,807	2,413,164	4,044,359	12,635,402	1,783,452	987,242	117,676	27,281	0

<b>TROJP</b>	100%	1.7641%	26.5921%	7.8652%	13.1818%	41.1827%	5.8128%	3.2177%	0.3835%	0.0889%	0.0000%
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Trojan Plant Allocator

**Account 228.42**

	TOTAL	California	Oregon	Washington	Wyo-PPL	Utah	Idaho	Wyo-UPL	FERC	Other	Non-Utility
SG	7,220,849	129,013	1,940,739	574,514	934,778	2,975,505	411,890	227,129	27,281	27,281	0
- Postmerger	1,472,376	26,307	395,729	117,147	190,607	606,724	83,987	46,313	5,563	0	0
Storage Facility	1,743,025	28,556	435,789	128,230	252,754	715,443	111,891	63,118	7,244	0	0
Transition Costs	3,531,000	63,088	949,023	280,938	457,107	1,455,024	201,415	111,066	13,340	0	0
<b>Total Acct 228.42</b>	<b>13,967,250</b>	<b>246,963</b>	<b>3,721,280</b>	<b>1,100,829</b>	<b>1,835,246</b>	<b>5,752,696</b>	<b>809,182</b>	<b>447,626</b>	<b>53,427</b>	<b>27,281</b>	<b>0</b>
Transition Costs	112,680	2,013	30,285	8,965	14,587	46,432	6,427	3,544	426	0	0
Storage Facility	941,950	15,432	235,505	69,297	136,591	386,633	60,467	34,110	3,915	0	0
December 1993 Adj.	1,054,630	17,445	265,790	78,262	151,178	433,065	66,895	37,654	4,340	0	0
Adjusted Acct 228.42	15,021,880	264,408	3,987,070	1,179,091	1,986,424	6,185,761	876,077	485,280	57,768	27,281	0

<b>TROJD</b>	100.0000%	1.7602%	26.5418%	7.8492%	13.2235%	41.1783%	5.8320%	3.2305%	0.3846%	0.1816%	0.0000%
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Trojan Decommissioning Allocator

PacifiCorp  
 Oregon General Rate Case December 2010 - Reply  
 13 MONTH AVERAGE FACTORS  
 CALCULATION OF INTERNAL FACTORS

DESCRIPTION OF FACTOR	TOTAL	California	Oregon	Washington	Wyo-FPL	Utah	Idaho	Wyo-UPL	FERC	Other	Non-Utility
<b>SCHMA</b>											
Amortization Expense : Acct 404	49,842,458	1,146,963	14,446,605	3,824,757	5,849,919	20,534,904	2,673,100	1,241,373	125,737	0	0
Amortization of Limited Term Plant Acct 405	0	0	0	0	0	0	0	0	0	0	0
Amortization of Other Electric Plant Acct 406	5,479,353	97,898	1,472,679	435,955	709,332	2,267,884	312,552	172,351	20,701	0	0
Amort of Prop. Losses, Unrecovered Plant, Acct 407	11,586,229	41,476	557,066	(90,676)	306,568	966,569	136,055	75,274	9,982	9,583,118	0
Total Amortization Expense :	66,908,040	1,286,338	16,476,351	4,169,834	6,866,918	23,759,357	3,121,707	1,486,998	155,420	9,583,118	0
<b>Schedule M Amortization Factor</b>	100.0000%	1.9225%	24.6254%	6.2322%	10.2632%	35.5105%	4.6657%	2.2254%	0.2323%	14.3228%	0.0000%

DESCRIPTION OF FACTOR	TOTAL	California	Oregon	Washington	Wyo-FPL	Utah	Idaho	Wyo-UPL	FERC	Other	Non-Utility
<b>SCHMD</b>											
Depreciation Expense :											
Steam Acct 403.1	150,926,284	2,698,581	40,641,722	12,032,478	19,559,153	62,069,696	8,599,054	4,757,622	567,979	0	0
Nuclear Acct 403.2	0	0	0	0	0	0	0	0	0	0	0
Hydro Acct 403.3	17,199,881	307,306	4,622,792	1,368,478	2,226,618	7,087,578	981,112	541,015	64,982	0	0
Other Acct 403.4	97,152,932	1,733,242	26,064,184	7,720,455	12,548,896	40,132,340	5,539,983	3,044,545	369,286	0	0
Transmission Acct 403.5	64,865,739	1,158,941	17,433,859	5,160,927	8,397,221	26,729,313	3,700,057	2,040,324	245,065	0	0
Distribution Acct 403.6	149,160,279	8,299,873	46,366,637	12,282,939	13,176,555	57,800,156	6,867,635	2,336,485	0	0	0
General Acct 403.7&8	35,864,594	865,710	10,866,011	3,223,167	4,656,940	13,342,782	2,110,080	916,058	61,846	0	0
Mining Acct 403.9	0	0	0	0	0	0	0	0	0	0	0
Experimental Acct 403.4	0	0	0	0	0	0	0	0	0	0	0
Postmerger Hydro Step I Adjustment	0	0	0	0	0	0	0	0	0	0	0
Total Depreciation Expense :	515,169,709	15,063,653	147,846,235	41,788,444	60,567,383	207,161,865	27,797,922	13,636,048	1,309,159	0	0
<b>Schedule M Depreciation Factor</b>	100.0000%	2.9240%	28.6984%	8.1119%	11.7568%	40.2124%	5.3959%	2.6469%	0.2541%	0.0000%	0.0000%
<b>Total Tax depreciation</b>	322,537,005	5,481,373	84,878,899	45,950,638	41,373,710	127,728,826	17,600,149	9,670,494	1,155,722	-	(11,302,806)
<b>Tax Depr factor</b>	100.0000%	1.6995%	26.316%	14.2465%	12.8276%	39.6013%	5.4568%	2.9983%	0.3583%	0.0000%	-3.5043%

**PacifiCorp**  
**Normalized Results of Operations**  
**Tab 12 Adjustment Summary**  
**Twelve Months Ending Dec 31, 2010**

	12.1	12.2	12.3	12.4	12.5	12.6	12.7	
	Total Adjustments	Allocation Factors	Cost of Capital and Capital Structure	Rate Base	Insurance Low Claims Bonus	Workers Compensation Expense	FAS 112 (Post-Employment Benefits)	401(k) Expense
1 Operating Revenues:								
2 General Business Revenues	-	-	-	-	-	-	-	-
3 Interdepartmental	-	-	-	-	-	-	-	-
4 Special Sales	(15,270,140)	-	-	-	-	-	-	-
5 Other Operating Revenues	55	55	-	-	-	-	-	-
6 Total Operating Revenues	(15,270,085)	55	-	-	-	-	-	-
7								
8 Operating Expenses:								
9 Steam Production	(1,390,787)	5,606	-	-	-	-	-	-
10 Nuclear Production	-	-	-	-	-	-	-	-
11 Hydro Production	-	-	-	-	-	-	-	-
12 Other Power Supply	(13,572,680)	(66,469)	8,273	11,298	-	-	-	-
13 Transmission	1,295,810	-	-	-	-	-	-	-
14 Distribution	-	-	-	-	-	-	-	-
15 Customer Accounting	-	-	-	-	-	-	-	-
16 Customer Service & Info	-	-	-	-	-	-	-	-
17 Sales	-	-	-	-	-	-	-	-
18 Administrative & General	(7,381,167)	3,394	-	-	(122,925)	(366,510)	(226,221)	(1,865,575)
19								
20 Total O&M Expenses	(21,048,823)	(57,469)	8,273	11,298	(122,925)	(366,510)	(226,221)	(1,865,575)
21								
22 Depreciation	(200,868)	252	-	(33,815)	-	-	-	-
23 Amortization	614	614	-	-	-	-	-	-
24 Taxes Other Than Income	2,156	2,156	-	-	-	-	-	-
25 Income Taxes - Federal	2,788,958	46,591	(24,657)	15,691	40,958	122,118	75,375	621,595
26 Income Taxes - State	368,025	(78,355)	(3,487)	2,897	5,934	17,693	10,921	90,059
27 Income Taxes - Def Net	(677,674)	(1,888)	-	-	-	-	-	-
28 Investment Tax Credit Adj	-	-	-	-	-	-	-	-
29 Misc Revenue & Expense	4	4	-	-	-	-	-	-
30								
31 Total Operating Expenses:	(18,767,607)	(88,095)	(19,871)	(3,928)	(76,033)	(226,699)	(139,925)	(1,153,920)
32								
33 Operating Rev For Return:	3,497,522	88,150	19,871	3,928	76,033	226,699	139,925	1,153,920
34								
35 Rate Base:								
36 Electric Plant In Service	(7,207,665)	32,919	-	(933,488)	-	-	-	-
37 Plant Held for Future Use	-	-	-	-	-	-	-	-
38 Misc Deferred Debits	(12,688,806)	422	-	-	-	-	-	-
39 Elec Plant Acq Adj	-	-	-	-	-	-	-	-
40 Nuclear Fuel	-	-	-	-	-	-	-	-
41 Prepayments	569	569	-	-	-	-	-	-
42 Fuel Stock	349	349	-	-	-	-	-	-
43 Material & Supplies	1,365	1,365	-	-	-	-	-	-
44 Working Capital	(282,703)	(746)	(396)	262	(1,071)	(3,192)	(1,970)	(16,250)
45 Weatherization Loans	(0)	(0)	-	-	-	-	-	-
46 Misc Rate Base	-	-	-	-	-	-	-	-
47								
48 Total Electric Plant:	(20,176,890)	34,878	(396)	(933,226)	(1,071)	(3,192)	(1,970)	(16,250)
49								
50 Rate Base Deductions:								
51 Accum Prov For Deprec	255,594	(10,742)	-	64,614	-	-	-	-
52 Accum Prov For Amort	(5,999)	(5,999)	-	-	-	-	-	-
53 Accum Def Income Tax	(2,256,282)	(1,692)	-	-	-	-	-	-
54 Unamortized ITC	-	-	-	-	-	-	-	-
55 Customer Adv For Const	-	-	-	-	-	-	-	-
56 Customer Service Deposits	-	-	-	-	-	-	-	-
57 Misc Rate Base Deductions	(630)	(630)	-	-	-	-	-	-
58								
59 Total Rate Base Deductions	(2,007,316)	(19,063)	-	64,614	-	-	-	-
60								
61 Total Rate Base:	(22,184,206)	15,815	(396)	(868,612)	(1,071)	(3,192)	(1,970)	(16,250)
62								
63 Return on Rate Base	0.166%	0.003%	0.001%	0.002%	0.003%	0.008%	0.005%	0.039%
64								
65 Return on Equity	0.347%	0.006%	0.023%	0.004%	0.005%	0.015%	0.009%	0.077%
66								
67 TAX CALCULATION:								
68 Operating Revenue	5,976,831	54,497	(8,273)	22,516	122,925	366,510	226,221	1,865,575
69 Other Deductions	-	-	-	-	-	-	-	-
70 Interest (AFUDC)	-	-	-	-	-	-	-	-
71 Interest	(578,227)	459	65,663	(25,212)	(31)	(93)	(57)	(472)
72 Schedule "M" Additions	1,705	1,705	-	-	-	-	-	-
73 Schedule "M" Deductions	(1,779,715)	982	-	-	-	-	-	-
74 Income Before Tax	8,336,477	54,761	(73,936)	47,728	122,956	366,603	226,278	1,866,046
75								
76 State Income Taxes	368,025	(78,355)	(3,487)	2,897	5,934	17,693	10,921	90,059
77 Taxable Income	7,968,452	133,116	(70,449)	44,830	117,022	348,910	215,358	1,775,987
78								
79 Federal Income Taxes + Other	2,788,958	46,591	(24,657)	15,691	40,958	122,118	75,375	621,595
APPROXIMATE REVISED PROTOCOL PRICE CHANGE	(9,910,923)	(143,981)	(1,003,683)	(129,404)	(126,276)	(376,502)	(232,389)	(1,916,436)
Approximate Price Change Due to:								
Net Power Costs/TAM	(602,513)	(46,254)	-	-	-	-	-	-
Embedded Cost Differential	2,203,205	(16,400)	8,273	11,298	-	-	-	-
General Rate Case	(11,511,615)	(81,326)	(1,011,956)	(140,702)	(126,276)	(376,502)	(232,389)	(1,916,436)



The following is an explanation of the reply adjustments included in the Company's revised revenue requirement addressing issues raised by intervening parties.

**12.1 Allocation Factors**

The Company has updated allocation factors to reflect two changes. First, allocation factors that rely on the net power cost study modeled in GRID have been updated to reflect changes in net power costs as filed in the Company's August 2009 TAM update. Second, allocation factors calculated based on electric plant in service balances have been updated to reflect plant levels included in the Company's revised revenue requirement. Both of these changes are consistent with the Commission-approved Revised Protocol allocation methodology. Please refer to page 12.0.1 for the actual impact on revenue requirement. Tab 11 shows the updated allocation percentages.

**12.2 Cost of Capital and Capital Structure**

Cost of capital and capital structure have been updated to the amounts shown on page 2.1. The reply testimony of Company witness Bruce N. Williams addresses the changes in capital structure and cost of debt. The Company has not made any changes to the cost of common equity as addressed in the reply testimony of Company witness Samuel C. Hadaway. Please refer to adjustment summary page 12.0.1 for the actual impact of these updates on revenue requirement.

**12.3 Rate Base**

This adjustment removes the 2 items identified by OPUC Staff witness Deborah Garcia that are not allowed in rate base. This adjustment also reduces Goodnoe Hills capital included in the test year to reflect the final amount of liquidated damages related to Goodnoe Hills. The Company agreed to update the Goodnoe Hills liquidated damages in OPUC data request 310. The associated impacts to depreciation expense and accumulated depreciation have also been included in this adjustment.

**12.4 Insurance Low Claims Bonus**

This adjustment includes into results a possible Low Claims Bonus at a 50% probability to be received during the test period as an offset to insurance expense. This adjustment reflects acceptance of the proposed adjustment by OPUC Staff witness Dustin Ball.

**12.5 Workers Compensation Expense**

This adjustment reduces the level of workers compensation insurance O&M expense as proposed by OPUC Staff witness Dustin Ball.

**12.6 FAS 112 (Post Employment Benefits)**

This adjustment adopts the reduction to post employment O&M expense as proposed by OPUC Staff witness Dustin Ball.

**12.7 401(k) Expense**

This adjustment adopts the proposed O&M adjustment related to Stock/401(k) by OPUC Staff witness Dustin Ball.

**12.8 Challenge Grants**

This adjustment removes expenses related to Challenge Grants as proposed by Staff witness Dustin Ball.

**PacifiCorp**  
**Oregon General Rate Case, December 2010**  
**Revenue Adjustment Summary**

**12.9 Transition Plan – Oregon Regulatory Asset**

This adjustment removes the Transition Plan-Oregon regulatory asset and related amortization expense and deferred income tax balance impacts from results. The Company accepts OPUC Staff witness Dustin Ball's proposal to establish a separate tariff rider to recover the remaining balance.

**12.10 MEHC CIC Severance Regulatory Asset**

This adjustment removes the amortization and rate base of the MEHC transition costs from the filing. The Company accepts OPUC Staff witness Dustin Ball's proposal to establish a separate tariff rider to recover these costs.

**12.11 Grid West Regulatory Asset**

This adjustment removes the Grid West regulatory asset and related amortization expense and deferred income tax balance impacts from results. The Company accepts OPUC Staff witness Dustin Ball's proposal to establish a separate tariff rider to recover the remaining balance.

**12.12 Wind Interconnection Rate Base**

This adjustment adopts the proposed adjustment by OPUC Staff witness Ed Durrenburger to remove the Glenrock Wind and Eurus Seven Mile interconnection projects from results. The associated impacts to depreciation expense and accumulated depreciation have also been included in this adjustment.

**12.13 Other Wind Plant Additions**

This adjustment removes the contingency amounts for High Plains, Glenrock III, and Seven Mile Hill II identified by Staff witness Ed Durrenberger. The associated impacts to depreciation expense and accumulated depreciation have also been included in this adjustment.

**12.14 August 2009 Net Power Cost Update**

The net power cost adjustment normalizes power costs by adjusting sales for resale, purchased power, wheeling and fuel in a manner consistent with the contractual terms of sales and purchase agreements, and normal hydro and weather conditions for the twelve-months ending December 31, 2010. The GRID study for this reply adjustment is based on the August 2009 TAM Update as shown on page 12.14.2.

As described in the testimony of R. Bryce Dalley, this adjustment is included in the calculation of overall revenue requirement for computational purposes only. The Company is not requesting recovery of net power costs as part of the general rate case.

**12.15 Embedded Cost Differential (ECD)**

This adjustment reflects updated NPC as reported in the Company's August 2009 TAM update. As discussed previously in PPL/700, the Company is seeking to recover its NPC through the TAM (Docket UE-207) and not in this proceeding. However, an update of NPC is required to properly calculate the ECD, which is included as part of the non-NPC revenue requirement. This adjustment is calculated within the model. Please refer to adjustment summary page 12.0.2 for the actual impact of this update.

<u>ACCOUNT</u>	<u>Type</u>	<u>TOTAL</u> <u>COMPANY</u>	<u>FACTOR</u>	<u>FACTOR %</u>	<u>OREGON</u> <u>ALLOCATED</u>	<u>REF#</u>
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**Description of Adjustment:**

The Company has updated allocation factors to reflect two changes. First, allocation factors that rely on the net power cost study modeled in GRID have been updated to reflect changes in net power costs as filed in the Company's August 2009 TAM update. Second, allocation factors calculated based on electric plant in service balances have been updated to reflect plant levels included in the Company's revised revenue requirement. Both of these changes are consistent with the Commission-approved Revised Protocol allocation methodology. Please refer to page 12.0.1 for the actual impact on revenue requirement. Tab 11 shows the updated allocation percentages.



<u>ACCOUNT</u>	<u>Type</u>	<u>TOTAL COMPANY</u>	<u>FACTOR</u>	<u>FACTOR %</u>	<u>OREGON ALLOCATED</u>	<u>REF#</u>
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**Description of Adjustment:**

Cost of capital and capital structure have been updated to the amounts shown on page 2.1. The reply testimony of Company witness Bruce N. Williams addresses the changes in capital structure and cost of debt. The Company has not made any changes to the cost of common equity as addressed in the reply testimony of Company witness Samuel C. Hadaway. Please refer to adjustment summary page 12.0.1 for the actual impact of these updates on revenue requirement.

	<u>ACCOUNT</u>	<u>Type</u>	<u>TOTAL COMPANY</u>	<u>FACTOR</u>	<u>FACTOR %</u>	<u>OREGON ALLOCATED</u>	<u>REF#</u>
<b>Adjustment to Rate Base:</b>							
Steam Plant	312	3	(1,468,653)	SG	26.877%	(394,728)	
General Plant	397	3	(4,325)	SO	28.259%	(1,222)	
Other Plant	343	3	<u>(2,000,000)</u>	SG	26.877%	<u>(537,538)</u>	
			<u>(3,472,979)</u>			<u>(933,488)</u>	12.3.1
<b>Adjustment to Depreciation Expense:</b>							
Steam Depreciation Expense	403SP	3	(44,495)	SG	26.877%	(11,959)	
General Depreciation Expense	403GP	3	(296)	SO	28.259%	(84)	
Other Depreciation Expense	403OP	3	<u>(81,007)</u>	SG	26.877%	<u>(21,772)</u>	
			<u>(125,798)</u>			<u>(33,815)</u>	12.3.1
<b>Adjustment to Depreciation Reserve:</b>							
Steam Depreciation Reserve	108SP	3	81,161	SG	26.877%	21,814	
General Depreciation Reserve	108GP	3	580	SO	28.259%	164	
Other Depreciation Reserve	108OP	3	<u>158,638</u>	SG	26.877%	<u>42,637</u>	
			<u>240,380</u>			<u>64,615</u>	12.3.1

**Description of Adjustment:**

This adjustment removes the 2 items identified by OPUC Staff witness Deborah Garcia that are not allowed in rate base. This adjustment also reduces Goodnoe Hills capital included in the test year to reflect the final amount of liquidated damages related to Goodnoe Hills. The Company agreed to update the Goodnoe Hills liquidated damages in OPUC data request 310. The associated impacts to depreciation expense and accumulated depreciation have also been included in this adjustment.

**PacifiCorp  
Oregon General Rate Case - December 2010  
Rate Base**

<b>Capital Addition</b>		<b>FERC</b>		<b>Inservice</b>		<b>Test Period</b>	
<b>Project Description</b>	<b>Acct</b>	<b>Factor</b>	<b>Date</b>	<b>July 08 to Dec 10</b>	<b>13 Month Avg.</b>	<b>Plant Adds</b>	<b>Plant Adds</b>
CWIP Inservice Not assigned to Specific Projects	312	SG	various	1,468,653	1,468,653	Ref. 12.3	Ref. 12.3
Purchase Treadmill for NTO Employees	397	SO	Jul-08	4,325	4,325	Ref. 12.3	Ref. 12.3
Goodnoe Hills Wind Project*	343	SG	May-08	2,000,000	2,000,000	Ref. 12.3	Ref. 12.3

\*As per the Company's Data Response OPUC 310, the Company is removing \$2m from the Goodnoe Hills capital amount included in the test year, to reflect the final amount of liquidated damages at Goodnoe Hills

**Depreciation Expense**

<b>Project Description</b>	<b>Rate</b>	<b>Depreciation Expense Year Ending Dec.2010</b>
CWIP Inservice Not assigned to Specific Projects	3.030%	44,495 Ref. 12.3
Purchase Treadmill for NTO Employees	6.853%	296 Ref. 12.3
Goodnoe Hills Wind Project	4.050%	81,007 Ref. 12.3

**Depreciation Reserve**

<b>Project Description</b>	<b>Rate</b>	<b>Depreciation Reserve 13 Month Avg.</b>
CWIP Inservice Not assigned to Specific Projects	3.030%	(81,161) Ref. 12.3
Purchase Treadmill for NTO Employees	6.853%	(580) Ref. 12.3
Goodnoe Hills Wind Project	4.050%	(158,638) Ref. 12.3

	<u>ACCOUNT</u>	<u>Type</u>	<u>TOTAL COMPANY</u>	<u>FACTOR</u>	<u>FACTOR %</u>	<u>OREGON ALLOCATED</u>	<u>REF#</u>
<b>Adjustment to Expense:</b> Insurance Expense	924	3	(435,000)	SO	28.259%	(122,925)	12.4.1

**Description of Adjustment:**

This adjustment includes into results a possible Low Claims Bonus at a 50% probability to be received during the test period as an offset to insurance expense. This adjustment reflects acceptance of the proposed adjustment by OPUC Staff witness Dustin Ball.

**Adjustment Detail:**

Low Claims Bonus received in Prior Periods:

Policy Year 10-1-06 to 10-1-07; Received March 2008	\$ 869,677
Policy Year 10-1-07 to 10-1-08; Received December 2008	\$ 869,962

Probability (\$870,000 x 50%)

x 50%

**Insurance Expense Amount to Remove from filing**

\$ 435,000 Ref. 12.4

	<u>ACCOUNT</u>	<u>Type</u>	<u>TOTAL COMPANY</u>	<u>FACTOR</u>	<u>FACTOR %</u>	<u>OREGON ALLOCATED</u>	<u>REF#</u>
<b>Adjustment to Rate Base:</b>							
Workers Compensation Expense	930	3	(1,296,986)	SO	28.259%	(366,510)	12.5.1

**Description of Adjustment:**

This adjustment reduces the level of workers compensation insurance O&M expense as proposed by OPUC Staff witness Dustin Ball.

**Adjustment Detail:**

CY 2008 Actual Workers Compensation Expense	1,606,948	
Escalation Rate to 2009	<u>1.05</u>	
2009 Forecast Workers Comp Expense	1,687,295	
Escalation Rate to 2010	<u>1.05</u>	
2010 Forecast Workers Comp Expense	1,771,660	
Workers Compensation included in the Company's Filing	<u>3,586,891</u>	
	(1,815,230)	
O&M percentage	<u>71.45%</u>	
<b>Adjustment to Workers Compensation O&amp;M Expense</b>	<u>(1,296,986)</u>	<b>Ref. 12.5</b>

	<u>ACCOUNT</u>	<u>Type</u>	<u>TOTAL COMPANY</u>	<u>FACTOR</u>	<u>FACTOR %</u>	<u>OREGON ALLOCATED</u>	<u>REF#</u>
<b>Adjustment to Expense:</b> Post Employment expense	930	3	(800,539)	SO	28.259%	(226,221)	12.6.1

**Description of Adjustment:**

This adjustment adopts the reduction to post employment O&M expense as proposed by OPUC Staff witness Dustin Ball.



**Adjustment Detail:**

CY 2008 Actual	5,073,226	
Escalation Rate to 2009	<u>1.03</u>	
2009 Forecast Postemployment Expense	5,225,423	
Escalation Rate to 2010	<u>1.03</u>	
2010 Forecast Postemployment Expense	5,382,185	
Postemployment included in the Company's Filing	<u>6,502,600</u>	
	(1,120,415)	
O&M percentage	<u>71.45%</u>	
<b>Adjustment to Post Employment Expense</b>	<u><u>(800,539)</u></u>	<b>Ref .12.6</b>

	<u>ACCOUNT</u>	<u>Type</u>	<u>TOTAL COMPANY</u>	<u>FACTOR</u>	<u>FACTOR %</u>	<u>OREGON ALLOCATED</u>	<u>REF#</u>
<b>Adjustment to Rate Base:</b> 401(k) expense	930	3	(6,601,790)	SO	28.259%	(1,865,575)	12.7.1

**Description of Adjustment:**

This adjustment adopts the proposed O&M adjustment related to Stock/401(k) by OPUC Staff witness Dustin Ball.

**Adjustment Detail:**

January - March 2009 Actual	8,028,109	
Annualize	<u>4</u>	
2009 Forecast	32,112,436	
Escalation to 2010	<u>1.025</u>	
2010 Forecast	32,915,247	
Transition credit reduction	<u>(700,000)</u>	
2010 Forecast	32,215,247	
401(k) in filing	<u>41,454,956</u>	
	\$ (9,239,709)	
O&M percentage	<u>71.45%</u>	
<b>401(k) Expense to Remove from filing</b>	<u><u>(6,601,790)</u></u>	<b>Ref. 12.7</b>

	<u>ACCOUNT</u>	<u>Type</u>	<u>TOTAL COMPANY</u>	<u>FACTOR</u>	<u>FACTOR %</u>	<u>OREGON ALLOCATED</u>	<u>REF#</u>
<b>Adjustment to Expense:</b> Challenge Grants	930	1	(206,237)	SO	28.259%	(58,280)	12.8.1

**Description of Adjustment:**

This adjustment removes expenses related to Challenge Grants as proposed by Staff witness Dustin Ball.

	<b><u>Challenge Grant</u></b>	
Jul-07	\$ 3,600	
Aug-07	\$ 12,000	
Sep-07	\$ 100	
Oct-07	\$ 9,833	
Nov-07	\$ 57,499	
Dec-07	\$ 61,603	
Jan-08	\$ -	
Feb-08	\$ 17,300	
Mar-08	\$ 12,500	
Apr-08	\$ 11,250	
May-08	\$ 1,380	
Jun-08	\$ 5,500	
Total	<u>\$ 192,565</u>	
Disallowance	100%	
Staff Adjustment	<u>\$ 192,565</u>	
Total Adjustments	<u>\$ 192,565</u>	
Escalation to 2010	1.071	
<b>Total Adjustment</b>	<b><u>\$ 206,237</u></b>	<b>Ref.12.8</b>

	<u>ACCOUNT</u>	<u>Type</u>	<u>TOTAL COMPANY</u>	<u>FACTOR</u>	<u>FACTOR %</u>	<u>OREGON ALLOCATED</u>	<u>REF#</u>
<b>Adjustment to Expense:</b>							
Amortization Expense	930	1	(2,274,947)	OR	100.000%	(2,274,947)	12.9.1
<b>Adjustment to Rate Base:</b>							
Transition Plan Asset at June 2008	182M	1	(8,108,022)	OR	100.000%	(8,108,022)	12.9.1
<b>Adjustment to Tax:</b>							
Accumulated Deferred Tax Balance	283	1	1,170,062	OR	100.000%	1,170,062	12.9.1

**Description of Adjustment:**

This adjustment removes the Transition Plan-Oregon regulatory asset and related amortization expense and deferred income tax balance impacts from results. The Company accepts OPUC Staff witness Dustin Ball's proposal to establish a separate tariff rider to recover the remaining balance.

PacifiCorp  
Oregon General Rate Case - December 2010  
OR Transition Plan Asset

FERC Description	Unadjusted 12 Months Ended Jun-08	Escalation To Dec-10	Adjusted 12 Months Ending Dec-10	Budget Amount 12 Months Ending Dec-10	Amount In Filing
930 Transition Plan OR - Amortization Expense	3,892,299	7.1%	4,168,813	2,274,947	2,274,947 Ref. 12.9
182M Transition Plan OR Asset	8,108,022	-	8,108,022	-	8,108,022 Ref. 12.9
283 Transition Plan OR - Accumulated Deferred Tax Avg. Balance	(1,170,062)	-	(1,170,062)	-	(1,170,062) Ref. 12.9

	<u>ACCOUNT</u>	<u>Type</u>	<u>TOTAL COMPANY</u>	<u>FACTOR</u>	<u>FACTOR %</u>	<u>OREGON ALLOCATED</u>	<u>REF#</u>
<b>Adjustment to Expense:</b>							
Amortization of deferred CIC severance	930	3	(7,521,243)	SO	28.259%	(2,125,400)	12.10.1
<b>Adjustment to Rate Base:</b>							
Unamort. Change-in-Control Severance	182M	3	(13,162,176)	SO	28.259%	(3,719,449)	12.10.1
<b>Adjustment to Tax:</b>							
Sch M Adjustment*	SCHMDT	3	(7,521,243)	SO	28.259%	(2,125,400)	12.10.1
Deferred Tax Expense	41110	3	(2,854,387)	SO	28.259%	(806,610)	12.10.1
Deferred Tax Balance	190	3	(4,995,177)	SO	28.259%	(1,411,568)	12.10.1

**Description of Adjustment:**

This adjustment removes the amortization and rate base of the MEHC transition costs from the filing. The Company accepts OPUC Staff witness Dustin Ball's proposal to establish a separate tariff rider to recover these costs.



PacifiCorp  
Oregon General Rate Case - December 2010  
Recap of Costs

<u>Severance Accrual to Amortize</u>		<u>Ref</u>
Mar-06	9,091,098	
Apr-06	2,442,461	
May-06	1,654,407	
Jun-06	3,787,684	
Jul-06	752,698	
Aug-06	5,429,173	
Sep-06	8,353,838	
Oct-06	2,932,641	
Nov-06	3,434,349	
Dec-06	515,787	
Jan-07	309,965	
Feb-07	2,174,847	
Mar-07	2,074,000	
	<u>42,952,949</u>	
Less Backfills Included Above	<u>(5,346,732)</u>	
Amount to Amortize	<u><b>37,606,217</b></u>	12.10.2
<u>Amortization of deferral - 5 year period</u>		
<b>Amortization 12 months ended December 2010</b>	<b>7,521,243</b>	12.10
<u>Unamortized Balance in Rate Base</u>		
12/31/2009	16,922,798	12.10.2
12/31/2010	9,401,554	12.10.2
<b>Average Balance</b>	<u><b>13,162,176</b></u>	12.10
Total Incremental Deferred Tax Expense	<b>(2,854,387)</b>	12.10
Total Incremental Deferred Tax Balance	<b>(4,995,177)</b>	12.10

PacifiCorp  
Oregon General Rate Case - December 2010  
MEHC CIC Severance Regulatory Asset  
MEHC Change-in-Control Severance Amortization Schedule

	Month	Monthly Amortization	Balance	Expense	Sch M	DIT Expense	DIT BAL
			37,606,217	Ref. 12.10.1			(14,271,935)
Apr-07	1	626,770	36,979,447				
May-07	2	626,770	36,352,676				
Jun-07	3	626,770	35,725,906		1,880,311	(713,597)	(13,558,339)
Jul-07	4	626,770	35,099,136				
Aug-07	5	626,770	34,472,366				
Sep-07	6	626,770	33,845,595				
Oct-07	7	626,770	33,218,825				
Nov-07	8	626,770	32,592,055				
Dec-07	9	626,770	31,965,284		3,760,622	(1,427,194)	(12,131,145)
Jan-08	10	626,770	31,338,514				
Feb-08	11	626,770	30,711,744				
Mar-08	12	626,770	30,084,974				
Apr-08	13	626,770	29,458,203				
May-08	14	626,770	28,831,433				
Jun-08	15	626,770	28,204,663		3,760,622	(1,427,194)	(10,703,952)
Jul-08	16	626,770	27,577,892				
Aug-08	17	626,770	26,951,122				
Sep-08	18	626,770	26,324,352				
Oct-08	19	626,770	25,697,582				
Nov-08	20	626,770	25,070,811				
Dec-08	21	626,770	24,444,041		3,760,622	(1,427,194)	(9,276,758)
Jan-09	22	626,770	23,817,271				
Feb-09	23	626,770	23,190,500				
Mar-09	24	626,770	22,563,730				
Apr-09	25	626,770	21,936,960				
May-09	26	626,770	21,310,190				
Jun-09	27	626,770	20,683,419		3,760,622	(1,427,194)	(7,849,564)
Jul-09	28	626,770	20,056,649				
Aug-09	29	626,770	19,429,879				
Sep-09	30	626,770	18,803,108				
Oct-09	31	626,770	18,176,338				
Nov-09	32	626,770	17,549,568				
Dec-09	33	626,770	<b>16,922,798</b>	Ref. 12.10.1	<u>3,760,622</u>	(1,427,194)	(6,422,371)
					<u>7,521,243</u>		
Jan-10	34	<b>626,770</b>	16,296,027				
Feb-10	35	<b>626,770</b>	15,669,257				
Mar-10	36	<b>626,770</b>	15,042,487				
Apr-10	37	<b>626,770</b>	14,415,717				
May-10	38	<b>626,770</b>	13,788,946				
Jun-10	39	<b>626,770</b>	13,162,176		3,760,622	(1,427,194)	(4,995,177)
Jul-10	40	<b>626,770</b>	12,535,406				
Aug-10	41	<b>626,770</b>	11,908,635				
Sep-10	42	<b>626,770</b>	11,281,865				
Oct-10	43	<b>626,770</b>	10,655,095				
Nov-10	44	<b>626,770</b>	10,028,325				
Dec-10	45	<b>626,770</b>	<b>9,401,554</b>	Ref. 12.10.1	<u>3,760,622</u>	(1,427,194)	(3,567,984)
					<u>7,521,243</u>	Ref. 12.10.1	
Jan-11	46	626,770	8,774,784				
Feb-11	47	626,770	8,148,014				
Mar-11	48	626,770	7,521,243				
Apr-11	49	626,770	6,894,473				
May-11	50	626,770	6,267,703				
Jun-11	51	626,770	5,640,933		3,760,622	(1,427,194)	(2,140,790)
Jul-11	52	626,770	5,014,162				
Aug-11	53	626,770	4,387,392				
Sep-11	54	626,770	3,760,622				
Oct-11	55	626,770	3,133,851				
Nov-11	56	626,770	2,507,081				
Dec-11	57	626,770	1,880,311		3,760,622	(1,427,194)	(713,597)
Jan-12	58	626,770	1,253,541				
Feb-12	59	626,770	626,770				
Mar-12	60	626,770	(0)		1,880,311	(713,597)	-

	<u>ACCOUNT</u>	<u>Type</u>	<u>TOTAL COMPANY</u>	<u>FACTOR</u>	<u>FACTOR %</u>	<u>OREGON ALLOCATED</u>	<u>REF#</u>
<b>Adjustment to Expense:</b>							
Amortization Expense	930	3	(344,703)	OR	100.000%	(344,703)	12.11.2
<b>Adjustment to Rate Base:</b>							
Misc. Regulatory Assets-Grid West Loan	182M	1	(861,756)	OR	100.000%	(861,756)	12.11.2
<b>Adjustment to Tax:</b>							
Sch M Adjustment	SCHMDT	3	344,703	OR	100.000%	344,703	12.11.2
Deferred Tax Expense	41110	1	130,824	OR	100.000%	130,824	12.11.2
Deferred Tax Balance	283	1	327,041	OR	100.000%	327,041	12.11.2

**Description of Adjustment:**

This adjustment removes the Grid West regulatory asset and related amortization expense and deferred income tax balance impacts from results. The Company accepts OPUC Staff witness Dustin Ball's proposal to establish a separate tariff rider to recover the remaining balance.

PacifiCorp  
Oregon General Rate Case - December 2010  
Grid West  
OR RTO Grid West Loan  
Account #187081

Authorized Cost of Capital = 8.057%  
Authorized Cost of Capital = 8.16% effective January 1, 2007 in UE - 179

Month	Begin Balance	Adjustments/ Amortization	Interest Accrual	Balance	Sch M	Ditexp	A/C 283 Ditbal	Point in Time	Sch M	Ditexp
Mar-06				768,451			(291,635)			
Apr-06	768,451		5,160	773,611	(5,160)	1,958	(293,593)			
May-06	773,611		5,194	778,805	(5,194)	1,971	(295,564)			
Jun-06	778,805		5,229	784,034	(5,229)	1,984	(297,548)			
Jul-06	784,034		5,264	789,298	(5,264)	1,998	(299,546)			
Aug-06	789,298		5,299	794,598	(5,299)	2,011	(301,557)			
Sep-06	794,598		5,335	799,933	(5,335)	2,025	(303,582)			
Oct-06	799,933		5,371	805,303	(5,371)	2,038	(305,620)			
Nov-06	805,303		5,407	810,710	(5,407)	2,052	(307,672)			
Nov-06	810,710	5,841	5,407	804,869	5,841	(2,217)	(305,455)			
Dec-06	804,869		(39)	804,830	39	(15)	(305,440)			
Dec-06	804,830		5,404	810,234	(5,404)	2,051	(307,491)			
Jan-07	810,234		5,510	815,743	(5,510)	2,091	(309,582)			
Feb-07	815,743		5,547	821,290	(5,547)	2,105	(311,687)			
Mar-07	821,290		5,585	826,875	(5,585)	2,119	(313,806)			
Apr-07	826,875		5,623	832,498	(5,623)	2,134	(315,940)			
May-07	832,498		5,661	838,159	(5,661)	2,148	(318,088)			
Jun-07	838,159		5,699	843,858	(5,699)	2,163	(320,251)			
Jul-07	843,858		5,738	849,597	(5,738)	2,178	(322,429)			
Aug-07	849,597		5,777	855,374	(5,777)	2,193	(324,622)			
Sep-07	855,374		5,817	861,190	(5,817)	2,207	(326,829)			
Oct-07	861,190		5,856	867,047	(5,856)	2,222	(329,051)			
Nov-07	867,047		5,896	872,942	(5,896)	2,238	(331,289)			
Dec-07	872,942		5,936	878,878	(5,936)	2,253	(333,542)			
Jan-08	878,878		5,976	884,855	(5,976)	2,268	(335,810)			
Feb-08	884,855		6,017	890,872	(6,017)	2,284	(338,094)			
Mar-08	890,872		6,058	896,930	(6,058)	2,299	(340,393)			
Apr-08	896,930		6,099	903,029	(6,099)	2,315	(342,708)			
May-08	903,029		6,141	909,169	(6,141)	2,330	(345,038)			
Jun-08	909,169		6,182	915,352	(6,182)	2,346	(347,384)			
Jul-08	915,352		6,224	921,576	(6,224)	2,362	(349,746)			
Aug-08	921,576		6,267	927,843	(6,267)	2,378	(352,124)			
Sep-08	927,843		6,309	934,152	(6,309)	2,394	(354,518)			
Oct-08	934,152		6,352	940,505	(6,352)	2,411	(356,929)			
Nov-08	940,505		6,395	946,900	(6,395)	2,427	(359,356)			
Dec-08	946,900		6,439	953,339	(6,439)	2,444	(361,800)			
Jan-09	953,339		6,483	959,822	(6,483)	2,460	(364,260)			
Feb-09	959,822		6,527	966,348	(6,527)	2,477	(366,737)			
Mar-09	966,348		6,571	972,920	(6,571)	2,494	(369,231)			
Apr-09	972,920		6,616	979,535	(6,616)	2,511	(371,742)			
May-09	979,535		6,661	986,196	(6,661)	2,528	(374,270)			
Jun-09	986,196		6,706	992,902	(6,706)	2,545	(376,815)			
Jul-09	992,902		6,752	999,654	(6,752)	2,562	(379,377)			
Aug-09	999,654		6,798	1,006,452	(6,798)	2,580	(381,957)			
Sep-09	1,006,452		6,844	1,013,296	(6,844)	2,597	(384,554)			
Oct-09	1,013,296		6,890	1,020,186	(6,890)	2,615	(387,169)			

PacifiCorp  
Oregon General Rate Case - December 2010  
Grid West  
OR RTO Grid West Loan  
Account #187081

Authorized Cost of Capital = 8.057%  
Authorized Cost of Capital = 8.16% effective January 1, 2007 in UE - 179

Month	Begin Balance	Adjustments/ Amortization	Interest Accrual	Balance	Sch M	Ditexp	A/C 283 Dibal	Point in Time	Sch M	Ditexp
Nov-09	1,020,186		6,937	1,027,123	(6,937)	2,633	(389,802)			
Dec-09	1,027,123		6,984	1,034,108	(6,984)	2,651	(392,453)			
Jan-10	1,034,108	28,725		1,005,383	28,725	(10,902)	(381,551)			
Feb-10	1,005,383	28,725		976,657	28,725	(10,902)	(370,649)			
Mar-10	976,657	28,725		947,932	28,725	(10,902)	(359,747)			
Apr-10	947,932	28,725		919,207	28,725	(10,902)	(348,845)			
May-10	919,207	28,725		890,482	28,725	(10,902)	(337,943)			
Jun-10	890,482	28,725		861,756	28,725	(10,902)	(327,041)	B/E Avg (327,041) Ref. 12.11		
Jul-10	861,756	28,725		833,031	28,725	(10,902)	(316,139)			
Aug-10	833,031	28,725		804,306	28,725	(10,902)	(305,237)			
Sep-10	804,306	28,725		775,581	28,725	(10,902)	(294,335)			
Oct-10	775,581	28,725		746,856	28,725	(10,902)	(283,433)			
Nov-10	746,856	28,725		718,130	28,725	(10,902)	(272,531)			
Dec-10	718,130	28,725		689,405	28,725	(10,902)	(261,629)		344,703 Ref. 12.11	(130,824) Ref. 12.11
Jan-11	689,405	28,725		660,680	28,725	(10,902)	(250,727)			
Feb-11	660,680	28,725		631,955	28,725	(10,902)	(239,825)			
Mar-11	631,955	28,725		603,230	28,725	(10,902)	(228,923)			
Apr-11	603,230	28,725		574,504	28,725	(10,902)	(218,021)			
May-11	574,504	28,725		545,779	28,725	(10,902)	(207,119)			
Jun-11	545,779	28,725		517,054	28,725	(10,902)	(196,217)			
Jul-11	517,054	28,725		488,329	28,725	(10,902)	(185,315)			
Aug-11	488,329	28,725		459,603	28,725	(10,902)	(174,413)			
Sep-11	459,603	28,725		430,878	28,725	(10,902)	(163,511)			
Oct-11	430,878	28,725		402,153	28,725	(10,902)	(152,609)			
Nov-11	402,153	28,725		373,428	28,725	(10,902)	(141,707)			
Dec-11	373,428	28,725		344,703	28,725	(10,902)	(130,805)			
Jan-12	344,703	28,725		315,977	28,725	(10,902)	(119,903)			
Feb-12	315,977	28,725		287,252	28,725	(10,902)	(109,001)			
Mar-12	287,252	28,725		258,527	28,725	(10,902)	(98,099)			
Apr-12	258,527	28,725		229,802	28,725	(10,902)	(87,197)			
May-12	229,802	28,725		201,077	28,725	(10,902)	(76,295)			
Jun-12	201,077	28,725		172,351	28,725	(10,902)	(65,393)			
Jul-12	172,351	28,725		143,626	28,725	(10,902)	(54,491)			
Aug-12	143,626	28,725		114,901	28,725	(10,902)	(43,589)			
Sep-12	114,901	28,725		86,176	28,725	(10,902)	(32,687)			
Oct-12	86,176	28,725		57,450	28,725	(10,902)	(21,785)			
Nov-12	57,450	28,725		28,725	28,725	(10,902)	(10,883)			
Dec-12	28,725	28,725		0	28,725	(10,883)	0			

	<u>ACCOUNT</u>	<u>Type</u>	<u>TOTAL COMPANY</u>	<u>FACTOR</u>	<u>FACTOR %</u>	<u>OREGON ALLOCATED</u>	<u>REF#</u>
<b>Adjustment to Rate Base:</b>							
Remove Glenrock Wind Interconnection	355	3	(10,997,680)	SG	26.877%	(2,955,834)	
Remove Eurus 7 Mile Hill Interconnection	355	3	(5,462,439)	SG	26.877%	(1,468,133)	
			<u>(16,460,119)</u>			<u>(4,423,967)</u>	12.12.1
<b>Adjustment to Depreciation Expense:</b>							
Remove Glenrock Wind Interconnection	403TP	3	(226,300)	SG	26.877%	(60,822)	
Remove Eurus 7 Mile Hill Interconnection	403TP	3	(112,401)	SG	26.877%	(30,210)	
			<u>(338,701)</u>			<u>(91,032)</u>	12.12.1
<b>Adjustment to Depreciation Reserve:</b>							
Remove Glenrock Wind Interconnection	108TP	3	348,879	SG	26.877%	93,768	
Remove Eurus 7 Mile Hill Interconnection	108TP	3	173,285	SG	26.877%	46,574	
			<u>522,164</u>			<u>140,341</u>	12.12.1

**Description of Adjustment:**

This adjustment adopts the proposed adjustment by OPUC Staff witness Ed Durrenburger to remove the Glenrock Wind and Eurus Seven Mile interconnection projects from results. The associated impacts to depreciation expense and accumulated depreciation have also been included in this adjustment.

PacifiCorp  
 Oregon General Rate Case - December 2010  
 Wind Interconnection Rate Base

Capital Addition		FERC	Inservice	July 08 to Dec 10	Test Period
Project Description	Acct	Date	Plant Adds	13 Month Avg.	Plant Adds
Glenrock Wind Interconnection	355	Dec-08	10,997,680	10,997,680	Ref. 12.12
Eurus 7 Mile Hills Interconnection	355	Dec-08	5,462,439	5,462,439	Ref. 12.12

Depreciation Expense	Rate	Expense Year Ending	Dec.2010
Glenrock Wind Interconnection	2.058%		226,300
Eurus 7 Mile Hills Interconnection	2.058%		112,401

Depreciation Reserve	Rate	Month Avg.	Ref.
Glenrock Wind Interconnection	2.058%	(348,879)	Ref. 12.12
Eurus 7 Mile Hills Interconnection	2.058%	(173,285)	Ref. 12.12

	<u>ACCOUNT</u>	<u>Type</u>	<u>TOTAL COMPANY</u>	<u>FACTOR</u>	<u>FACTOR %</u>	<u>OREGON ALLOCATED</u>	<u>REF#</u>
<b>Adjustment to Rate Base:</b>							
High Plains	343	3	(5,544,000)	SG	26.877%	(1,490,054)	
Glenrock III	343	3	(975,000)	SG	26.877%	(262,050)	
Seven Mile Hill II	343	3	(487,500)	SG	26.877%	(131,025)	
			<u>(7,006,500)</u>			<u>(1,883,129)</u>	12.13.1
<b>Adjustment to Depreciation Expense:</b>							
High Plains	403OP	3	(224,550)	SG	26.877%	(60,352)	
Glenrock III	403OP	3	(39,491)	SG	26.877%	(10,614)	
Seven Mile Hill II	403OP	3	(19,745)	SG	26.877%	(5,307)	
			<u>(283,786)</u>			<u>(76,273)</u>	12.13.1
<b>Adjustment to Depreciation Reserve:</b>							
High Plains	108OP	3	140,344	SG	26.877%	37,720	
Glenrock III	108OP	3	57,591	SG	26.877%	15,479	
Seven Mile Hill II	108OP	3	30,441	SG	26.877%	8,182	
			<u>228,375</u>			<u>61,380</u>	12.13.1

**Description of Adjustment:**

This adjustment removes the contingency amounts for High Plains, Glenrock III, and Seven Mile Hill II identified by Staff witness Ed Durrenberger. The associated impacts to depreciation expense and accumulated depreciation have also been included in this adjustment.



PacifiCorp  
 Oregon General Rate Case - December 2010  
 Other Wind Plant Additions

<b>Capital Addition</b>		<b>FERC</b>		<b>Inservice</b>		<b>Contingency</b>	
<b>Project Description</b>	<b>Acct</b>	<b>Factor</b>	<b>Date</b>	<b>Amounts</b>	<b>Date</b>	<b>Amounts</b>	<b>Ref.</b>
High Plains	343	SG	Nov.09	5,544,000	Nov.09	5,544,000	Ref. 12.13
Glenrock III	343	SG	Jan.09	975,000	Jan.09	975,000	Ref. 12.13
Seven Mile Hill II	343	SG	Dec.08	487,500	Dec.08	487,500	Ref. 12.13

**Depreciation Expense**

<b>Project Description</b>	<b>Rate</b>	<b>Depreciation Expense Year Ending Dec.2010</b>	<b>Ref.</b>
High Plains	4.050%	224,550	Ref. 12.13
Glenrock III	4.050%	39,491	Ref. 12.13
Seven Mile Hill II	4.050%	19,745	Ref. 12.13

**Depreciation Reserve**

<b>Project Description</b>	<b>Rate</b>	<b>Depreciation Reserve 13 Month Avg.</b>	<b>Ref.</b>
High Plains	4.050%	(140,344)	Ref. 12.13
Glenrock III	4.050%	(57,591)	Ref. 12.13
Seven Mile Hill II	4.050%	(30,441)	Ref. 12.13

	ACCOUNT	Type	TOTAL COMPANY	FACTOR	FACTOR %	OREGON ALLOCATED	REF#
<b>Adjustment to Revenue:</b>							
<b>Sales for Resale (Account 447)</b>							
	447	3	318,152	SG	26.877%	85,509	
	447	3	-	SG	26.877%	-	
	447	3	(57,133,295)	SG	26.877%	(15,355,650)	
	447	3	-	SE	25.002%	-	
<b>Total Sales for Resale</b>			<u>(56,815,143)</u>			<u>(15,270,140)</u>	
<b>Adjustment to Expense:</b>							
<b>Purchased Power (Account 555)</b>							
	555	3	1,461,502	SG	26.877%	392,806	
	555	3	(611,370)	SG	26.877%	(164,317)	
	555	3	3,333,941	SE	25.002%	833,548	
	555	3	(24,865,730)	SG	26.877%	(6,683,133)	
	555	3	-	SE	25.002%	-	
	555	3	-	SSEG	0.000%	-	
	555	3	(3,339,924)	SG	26.877%	(897,667)	
	555	1	-	SG	26.877%	-	
<b>Total Purchased Power Adjustments:</b>			<u>(24,021,582)</u>			<u>(6,518,764)</u>	
<b>Wheeling Expense (Account 565)</b>							
	565	3	-	SG	26.877%	-	
	565	3	(0)	SG	26.877%	(0)	
	565	3	4,828,564	SG	26.877%	1,297,768	
	565	3	(7,828)	SE	25.002%	(1,957)	
<b>Total Wheeling Expense Adjustments:</b>			<u>4,820,736</u>			<u>1,295,811</u>	
<b>Fuel Expense (Accounts 501, 503, 547)</b>							
	501	3	6,500,209	SE	25.002%	1,625,176	
	501	3	242,534	SSECH	25.40833%	61,624	
	501	3	(12,334,934)	SE	25.002%	(3,083,968)	
	547	3	(32,140,943)	SE	25.002%	(8,035,846)	
	547	3	(5,029,605)	SSECT	23.286%	(1,171,207)	
	503	3	3,101	SE	25.002%	775	
<b>Total Fuel Expense Adjustments:</b>			<u>(42,759,638)</u>			<u>(10,603,446)</u>	
<b>Total Power Cost Adjustment</b>			<u>(5,145,341)</u>			<u>(556,259)</u>	

**Description of Adjustment:**

The net power cost adjustment normalizes power costs by adjusting sales for resale, purchased power, wheeling and fuel in a manner consistent with the contractual terms of sales and purchase agreements, and normal hydro and weather conditions for the twelve-months ending December 31, 2010. The GRID study for this reply adjustment is based on the August 2009 TAM Update shown on page 12.14.2.

As described in the testimony of R. Bryce Dalley, this adjustment is included in the calculation of overall revenue requirement for computational purposes only. The Company is not requesting recovery of net power costs as part of the general rate case.

Note: Oregon-allocated net power costs have a variance of \$32,351 from the figures reported in the Company's August 2009 TAM update. This is driven by changes in the SSECH and SSECT allocation factors. Factor updates were not included in the August 2009 TAM exhibits.

PacifiCorp  
Allocated NPC to Oregon for TAM

ACCOUNT	FINAL UE-199		Original Filing		August Update		GRC Reply Factors CY2010	GRC Reply Factors CY2010	GRC Reply Factors CY2010	Original Filing CY2010	August Update		TC Variance From Original Filing	Oregon-Allocated Variance from Original Filing
	CY 2009	CY 2010	CY 2009	CY 2010	CY 2009	CY 2010					CY 2009	CY 2010		
<b>Sales for Resale</b>														
447	24,281,555	24,656,916	24,975,068	SG	26.411%	26.877%	26.877%	26.877%	6,413,106	6,627,011	6,712,520	318,152	85,509	
447	25,460,590	25,490,589	25,490,589	SG	26.411%	26.877%	26.877%	26.877%	6,732,429	6,851,076	6,851,076	-	-	
447	882,169,664	696,790,188	639,656,892	SG	26.411%	26.877%	26.877%	26.877%	232,993,623	187,275,491	171,919,842	(57,163,295)	(15,355,650)	
447	-	-	-	SE	25.525%	25.002%	25.002%	25.002%	-	-	-	-	-	
<b>Total Sales for Resale</b>	<b>931,941,809</b>	<b>746,937,693</b>	<b>690,122,550</b>						<b>246,139,158</b>	<b>200,753,578</b>	<b>186,483,438</b>	<b>(56,815,143)</b>	<b>(15,270,140)</b>	
<b>Purchased Power</b>														
555	62,711,383	57,671,363	59,132,864	SG	26.411%	26.877%	26.877%	26.877%	16,562,973	15,500,265	15,833,071	1,461,502	392,806	
555	46,726,726	47,195,846	46,584,477	SG	26.411%	26.877%	26.877%	26.877%	12,341,196	12,684,773	12,520,456	(611,370)	(164,317)	
555	66,847,124	55,596,693	58,930,634	SE	25.525%	25.002%	25.002%	25.002%	17,062,566	13,900,229	14,733,777	3,333,941	833,546	
555	707,106,149	376,422,870	351,557,140	SG	26.411%	26.877%	26.877%	26.877%	186,756,845	101,170,739	94,487,605	(24,865,730)	(6,683,133)	
555	7,688,490	-	-	SE	25.525%	25.002%	25.002%	25.002%	-	-	-	-	-	
555	5,247,531	11,022,399	7,662,475	SSGC	24.488%	0.000%	0.000%	0.000%	1,882,756	2,962,477	2,064,810	(3,339,924)	(697,667)	
555	896,327,403	547,909,171	523,887,589	SG	26.411%	26.877%	26.877%	26.877%	1,385,948	1,462,218,483	139,699,720	(24,021,582)	(6,518,764)	
<b>Total Purchased Power</b>	<b>1,134,719,692</b>	<b>1,005,545,210</b>	<b>1,095,399,869</b>						<b>266,835,529</b>	<b>272,967,396</b>	<b>272,364,884</b>	<b>(5,145,341)</b>	<b>(602,513)</b>	
<b>Wheeling Expense</b>														
565	31,031,711	43,189,893	43,189,893	SG	26.411%	26.877%	26.877%	26.877%	8,195,919	11,608,098	11,608,098	-	-	
565	172,448	168,268	168,268	SG	26.411%	26.877%	26.877%	26.877%	45,546	45,225	45,225	(0)	(0)	
565	83,334,742	96,107,739	100,936,303	SG	26.411%	26.877%	26.877%	26.877%	22,009,897	25,830,766	27,128,533	4,828,564	1,297,768	
565	184,789	282,748	274,921	SE	25.525%	25.002%	25.002%	25.002%	47,167	70,692	68,735	(7,828)	(1,957)	
<b>Total Wheeling Expense</b>	<b>114,723,691</b>	<b>138,748,649</b>	<b>144,569,385</b>						<b>30,298,529</b>	<b>37,554,781</b>	<b>38,850,591</b>	<b>4,820,736</b>	<b>1,295,811</b>	
<b>Fuel Expense</b>														
501	568,676,213	604,154,098	610,654,307	SE	25.525%	25.002%	25.002%	25.002%	145,153,389	151,049,995	152,675,171	6,500,209	1,625,176	
501	57,517,646	54,964,906	55,207,439	SSECH	25.897%	25.405%	25.40833%	25.40833%	14,895,507	13,963,575	14,027,286	242,554	63,711	
501	27,408,356	21,128,538	8,793,603	SE	25.525%	25.002%	25.002%	25.002%	6,985,924	5,282,536	2,198,568	(12,334,954)	(3,083,969)	
547	374,811,293	468,583,217	426,442,274	SE	25.525%	25.002%	25.002%	25.002%	95,669,782	114,654,511	106,618,665	(32,140,943)	(8,035,846)	
547	23,655,228	17,499,425	12,469,620	SSECT	24.286%	23.563%	23.28625%	23.28625%	5,744,981	4,123,302	2,903,754	(6,029,605)	(1,219,548)	
503	3,541,671	3,494,899	3,498,000	SE	25.525%	25.002%	25.002%	25.002%	904,004	873,791	874,566	3,181	775	
<b>Total Fuel Expense</b>	<b>1,055,610,407</b>	<b>1,159,825,082</b>	<b>1,117,065,444</b>						<b>266,835,529</b>	<b>289,947,711</b>	<b>279,298,011</b>	<b>(42,159,638)</b>	<b>(10,649,700)</b>	
<b>Net Power Cost</b>														
	1,134,719,692	1,005,545,210	1,095,399,869			242,534			289,515,263	272,967,396	272,364,884	(5,145,341)	(602,513)	
<b>Net Power Costs in Rates from UE-199</b>	<b>1,043,323,002</b>	<b>57,222,208</b>	<b>(5,145,341)</b>						<b>6,131,867</b>	<b>5,529,365</b>	<b>5,529,365</b>	<b>Increase Absent Load Change</b>		

Oregon-allocated NPC Baseline in Rates from UE 199 \$ 266,835,529  
 2009 MWH (excluding Schedule 33) 14,026,969  
 \$/MWH in Rates 19.02  
 2010 MWH (excluding Schedule 33) 13,267,901  
 2010 Recovery of NPC in Rates \$ 252,395,751

**20,571,645** Increase With Load Change  
 (602,513) Variance from Original Filing

**PacifiCorp**  
 August 2009 Update  
 Period Ending  
 12 months ended December 2010

**Study Results**  
**MERGED PEAK/ENERGY SPLIT**  
 (\$)

	Merged 01/10-12/10	Pre-Merger Demand	Pre-Merger Energy	Non-Firm	Post-Merger
<b>SPECIAL SALES FOR RESALE</b>					
Pacific Pre Merger	24,975,068	24,975,068			
Post Merger	639,656,892				639,656,892
Utah Pre Merger	25,490,589	25,490,589			
NonFirm Sub Total	-			-	
<b>TOTAL SPECIAL SALES</b>	<b>690,122,550</b>	<b>50,465,657</b>	<b>-</b>	<b>-</b>	<b>639,656,892</b>
<b>PURCHASED POWER &amp; NET INTERCHANGE</b>					
BPA Peak Purchase	47,058,000	47,058,000			
Pacific Capacity	1,411,140	600,000	811,140		
Mid Columbia	10,467,011	3,140,103	7,326,908		
Misc/Pacific	7,223,139	1,497,810	5,725,329		
Q.F. Contracts/PPL	66,761,501	6,836,951	33,310,620		26,613,931
Pacific Sub Total	132,920,792	59,132,864	47,173,996	-	26,613,931
Gemstate	2,716,400		2,716,400		
GSLM	-		-		
QF Contracts/UPL	92,440,272	21,093,887	9,040,237		62,306,148
IPP Layoff	25,490,589	25,490,589	-		
UP&L to PP&L	-	-	-		
Utah Sub Total	120,647,262	46,584,477	11,756,637	-	62,306,148
APS Supplemental	9,756,544				9,756,544
Avoided Cost Resource	-				-
Blanding Purchase	19,725				19,725
Chehalis Tolling	-				-
Combine Hills	3,911,516				3,911,516
Constellation p257677	-				-
Constellation p257678	-				-
Constellation p268849	-				-
Deseret Purchase	32,249,754				32,249,754
Georgia-Pacific Camas	7,280,700				7,280,700
Hermiston Purchase	92,817,337				92,817,337
Hurricane Purchase	328,501				328,501
Idaho Power P278538	777,066				777,066
Kennecott Generation Incentive	8,211,540				8,211,540
LADWP 491303-4	1,161,570				1,161,570
MagCorp	-				-
MagCorp Reserves	1,755,360				1,755,360
Morgan Stanley p189046	10,683,600				10,683,600
Morgan Stanley p244840	-				-
Morgan Stanley p244841	-				-
Morgan Stanley p272153-6-8	1,485,000				1,485,000
Morgan Stanley p272154-7	1,572,000				1,572,000
Nebo Heat Rate Option	-				-
NuCor	4,610,400				4,610,400
P4 Production	16,193,520				16,193,520
Rock River	5,041,688				5,041,688
Roseburg Forest Products	8,767,111				8,767,111
Three Buttes Wind	10,935,525				10,935,525
Tri-State Purchase	11,267,375				11,267,375
UBS p268848	-				-
UBS p268850	-				-
Weyerhaeuser Reserve	-				-
Wolverine Creek	9,748,726				9,748,726
Place Holder	-				-
BPA So. Idaho Exchange	-				-
DSM (Irrigation)	-				-
PSCO Exchange	3,600,000				3,600,000
TransAlta p371343/s371344	(1,644,000)				(1,644,000)

Short Term Firm Purchases	22,106,505				22,106,505
New Firm Sub Total	262,637,061	-	-	-	262,637,061
Non Firm Sub Total	-				-
TOTAL PURCHASED PW & NET INT.	516,205,115	105,717,341	58,930,634	-	351,557,140
WHEELING & U. OF F. EXPENSE					
Pacific Firm Wheeling and Use of Facilities	43,189,893	43,189,893			
Utah Firm Wheeling and Use of Facilities	168,268	168,268			
Post Merger	100,936,303				100,936,303
Nonfirm Wheeling	274,921			274,921	
TOTAL WHEELING & U. OF F. EXPENSE	144,569,385	43,358,161	-	274,921	100,936,303
THERMAL FUEL BURN EXPENSE					
Carbon	20,059,572			20,059,572	
Cholla	55,207,439			55,207,439	
Colstrip	12,944,264			12,944,264	
Craig	20,838,403			20,838,403	
Chehalis	96,392,799			96,392,799	
Currant Creek	114,429,808			114,429,808	
Dave Johnston	52,577,538			52,577,538	
Gadsby	8,793,603			8,793,603	
Gadsby CT	12,469,820			12,469,820	
Hayden	11,288,166			11,288,166	
Hermiston	56,036,843			56,036,843	
Hunter	112,775,720			112,775,720	
Huntington	96,648,088			96,648,088	
Jim Bridger	181,504,009			181,504,009	
Lake Side	149,158,260			149,158,260	
Little Mountain	10,424,564			10,424,564	
Naughton	81,873,772			81,873,772	
West Valley	-			-	
Wyodak	20,144,777			20,144,777	
TOTAL FUEL BURN EXPENSE	1,113,567,444	-	-	1,113,567,444	-
OTHER GENERATION EXPENSE					
Blundell	3,498,000			3,498,000	
Wind Integration Charge	7,682,475			7,682,475	
TOTAL OTHER GEN. EXPENSE	11,180,475	-	-	11,180,475	-
NET POWER COST	1,095,399,869	98,609,845	58,930,634	1,125,022,840	(187,163,450)

PacifiCorp Original TAM filing Period Ending 12 months ended December 2010	Study Results MERGED PEAK/ENERGY SPLIT (\$)				
	Merged 01/10-12/10	Pre-Merger Demand	Pre-Merger Energy	Non-Firm	Post-Merger
<b>SPECIAL SALES FOR RESALE</b>					
Pacific Pre Merger	24,656,916	24,656,916			
Post Merger	696,790,188				696,790,188
Utah Pre Merger	25,490,589	25,490,589			
NonFirm Sub Total	-			-	
<b>TOTAL SPECIAL SALES</b>	<b>746,937,693</b>	<b>50,147,505</b>	<b>-</b>	<b>-</b>	<b>696,790,188</b>
<b>PURCHASED POWER &amp; NET INTERCHANGE</b>					
BPA Peak Purchase	47,058,000	47,058,000			
Pacific Capacity	1,411,140	600,000	811,140		
Mid Columbia	5,839,267	1,751,780	4,087,487		
Misc/Pacific	7,223,139	1,497,810	5,725,329		
Q.F. Contracts/PPL	62,755,881	6,763,772	32,954,084		23,038,024
Pacific Sub Total	124,287,426	57,671,363	43,578,040	-	23,038,024
Gemstate	2,716,400		2,716,400		
GSLM	-		-		
QF Contracts/UPL	97,112,137	21,705,257	9,302,253		66,104,627
IPP Layoff	25,490,589	25,490,589	-		
UP&L to PP&L	-	-	-		
Utah Sub Total	125,319,126	47,195,846	12,018,653	-	66,104,627
APS Supplemental	10,927,901				10,927,901
Avoided Cost Resource	-				-
Blanding Purchase	19,725				19,725
Chehalis Tolling	-				-
Combine Hills	3,911,516				3,911,516
Constellation p257677	-				-
Constellation p257678	-				-
Constellation p268849	-				-
Deseret Purchase	32,249,754				32,249,754
Georgia-Pacific Camas	7,280,700				7,280,700
Hermiston Purchase	98,888,667				98,888,667
Hurricane Purchase	328,501				328,501
Idaho Power RTSA Purchase	2,372,618				2,372,618
Kennecott Generation Incentive	8,211,540				8,211,540
MagCorp	-				-
MagCorp Reserves	1,755,360				1,755,360
Morgan Stanley p189046	10,683,600				10,683,600
Morgan Stanley p244840	-				-
Morgan Stanley p244841	-				-
Morgan Stanley p272153-6-8	1,485,000				1,485,000
Morgan Stanley p272154-7	3,369,600				3,369,600
Nebo Heat Rate Option	-				-
NuCor	4,610,400				4,610,400
P4 Production	16,193,520				16,193,520
Rock River	5,041,688				5,041,688
Roseburg Forest Products	8,767,111				8,767,111
Three Buttes Wind	10,935,525				10,935,525
Tri-State Purchase	10,971,155				10,971,155
UBS p268848	-				-
UBS p268850	-				-
Weyerhaeuser Reserve	-				-
Wolverine Creek	9,748,726				9,748,726
Place Holder	-				-
BPA So. Idaho Exchange	-				-
DSM (Irrigation)	-				-
PSCO Exchange	3,600,000				3,600,000
TransAlta p371343/s371344	(1,644,000)				(1,644,000)

Short Term Firm Purchases	37,571,611				37,571,611
New Firm Sub Total	287,280,219	-	-	-	287,280,219
Non Firm Sub Total	-				-
TOTAL PURCHASED PW & NET INT.	536,886,772	104,867,209	55,596,693	-	376,422,870
WHEELING & U. OF F. EXPENSE					
Pacific Firm Wheeling and Use of Facilities	43,189,893	43,189,893			
Utah Firm Wheeling and Use of Facilities	168,268	168,268			
Post Merger	96,107,739				96,107,739
Nonfirm Wheeling	282,748			282,748	
TOTAL WHEELING & U. OF F. EXPENSE	139,748,649	43,358,161	-	282,748	96,107,739
THERMAL FUEL BURN EXPENSE					
Carbon	19,446,056			19,446,056	
Cholla	54,964,906			54,964,906	
Colstrip	12,395,660			12,395,660	
Craig	20,691,191			20,691,191	
Chehalis	97,520,795			97,520,795	
Currant Creek	123,816,195			123,816,195	
Dave Johnston	52,590,391			52,590,391	
Gadsby	21,128,538			21,128,538	
Gadsby CT	17,499,425			17,499,425	
Hayden	11,369,342			11,369,342	
Hermiston	62,004,977			62,004,977	
Hunter	111,340,062			111,340,062	
Huntington	96,354,411			96,354,411	
Jim Bridger	180,236,369			180,236,369	
Lake Side	164,937,833			164,937,833	
Little Mountain	10,303,418			10,303,418	
Naughton	80,290,581			80,290,581	
West Valley	-			-	
Wyodak	19,440,034			19,440,034	
TOTAL FUEL BURN EXPENSE	1,156,330,183	-	-	1,156,330,183	-
OTHER GENERATION EXPENSE					
Blundell	3,494,899			3,494,899	
Wind Integration Charge	11,022,399			11,022,399	
TOTAL OTHER GEN. EXPENSE	14,517,298	-	-	14,517,298	-
NET POWER COST	1,100,545,210	98,077,865	55,596,693	1,171,130,230	(224,259,579)

	<u>ACCOUNT</u>	<u>Type</u>	<u>TOTAL</u> <u>COMPANY</u>	<u>FACTOR</u>	<u>FACTOR %</u>	<u>OREGON</u> <u>ALLOCATED</u>	<u>REF#</u>
<b>Adjustment to Rate Base:</b>							

**Description of Adjustment:**

This adjustment reflects updated NPC as reported in the Company's August 2009 TAM update. As discussed previously in PPL700, the Company is seeking to recover its NPC through the TAM (Docket UE-207) and not in this proceeding. However, an update of NPC is required to properly calculate the ECD, which is included as part of the non-NPC revenue requirement. This adjustment is calculated within the model. Please refer to adjustment summary page 12.0.2 for the actual impact of this update.





Docket No. UE-210  
Exhibit PPL/709  
Witness: R. Bryce Dalley

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of R. Bryce Dalley**

**OPUC Staff Data Request Responses**

**August 2009**

August 10, 2009

TO: Katherine McDowell  
Counsel for PacifiCorp

FROM: Judy Johnson  
Program Manager, Rates and Regulation

**OREGON PUBLIC UTILITY COMMISSION  
UE 210  
PacifiCorp's Third Set of Data Requests to OPUC  
Dated July 30, 2009 – Due August 10, 2009  
Data Requests 3.7 - 3.8**

**Request:**

- 3.7 See Staff/700, Rossow/2, lines 3-5. Please provide docket numbers or other specific reference where application of a 3-year historical average calculation for uncollectible accounts has been adopted by the Commission.

**Response:**

- 3.7 Many of the dockets in which Staff had adjustments to uncollectible accounts involving a 3-year average were all settled before going to hearing. In docket UG 132, a 3-year average was used. See Order 99-697, Stipulation and Agreement, Appendix D, page 4 of 8.

**Request:**

- 3.8 See Staff/700. Please explain how Mr. Rossow's analysis behind the adjustment to uncollectible expense has taken into account the current economic conditions faced by Oregon customers?
- a. Please provide any analysis, documentation, and workpapers that show how a three-year average of write-offs is relevant for forecasting a 2010 uncollectible expense amount.
  - b. Has any consideration been given to the upward trending of the write-off levels from 2006 to the present?

**Response:**

- 3.8 The adjustment using a 3-year average to uncollectible expense takes into account the 2006, 2007, and 2008 economic conditions relating to uncollectible expense, which may spike from year to year.
- a. PacifiCorp is already in possession of staff's workpaper involving the uncollectible expense adjustment.
  - b. No consideration was given to the upward trending of the write-off levels from 2006 to the present. Instead, Staff relied on PacifiCorp's Global Insight Customer Account escalated factor.

August 10, 2009

TO: Katherine McDowell  
Counsel for PacifiCorp

FROM: Judy Johnson  
Program Manager, Rates and Regulation

**OREGON PUBLIC UTILITY COMMISSION  
UE 210  
PacifiCorp's Third Set of Data Requests to OPUC  
Dated July 30, 2009 – Due August 10, 2009  
Data Requests 3.12 - 3.19**

**Request:**

3.16 See Staff/100, Garcia/8, lines 10. Please provide citations to past Commission cases where the referenced "policy" has been articulated and/or implemented.

**Response:**

3.16 Staff is not aware of any general rate case proceeding, where the filing was based on a future test year, in which Commission Staff has advocated an adjustment to a reasonable level of proforma distribution plant addition to rate base.

August 10, 2009

TO: Katherine McDowell  
Counsel for PacifiCorp

FROM: Judy Johnson  
Program Manager, Rates and Regulation

**OREGON PUBLIC UTILITY COMMISSION  
UE 210  
PacifiCorp's 3rd Set of Data Requests to OPUC  
Dated July 30, 2009 – Due August 10, 2009  
Data Request 3.20-3.23 - Peng**

**Request:**

- 3.21 In reference to the workpapers associated with Adjustment S-7 (Peng – depreciation and amortization), please explain why the following projects are shown to use a different depreciation rate than the applicable rate for its function and factor. Please provide all supporting analyses and documentation to support the difference.
- a. Fleet Trans Fire Protection Upgrade project (Function Steam, Factor SG) is using a depreciation rate of 3.225% instead of 3.030%
  - b. Garden Valley – Capacity Solution project (feeder upgrades) (Function Distribution, Factor OR) is using a depreciation rate 2.058% instead of 2.863%
  - c. U1-Plant Vehicle Replacement project (Function General, Factor SG) is using a depreciation rate 3.029% instead of 3.225%

**Response:**

- 3.21 The Staff depreciation rates for these projects are typographical errors.. The correct depreciation rates should be 3.225%, 2.058%, and 3.029%, respectively. The corrections noted above will be reflected in Staff's next round of testimony.



Docket No. UE-210  
Exhibit PPL/710  
Witness: R. Bryce Dalley

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of R. Bryce Dalley  
Company Responses to ICNU Data Requests 9.8 and 9.33**

**August 2009**



**ICNU Data Request 9.8**

Provide the following information for Pacific Power Oregon for each of the calendar years 2008, 2007, 2006, 2005, and 2004:

- a. Total wages and salaries
- b. Total wages and salaries charged to accounts 500 through 932
- c. Total wages and salaries charged to capital or other balance sheet accounts
- d. Total regular wages and salaries
- e. Total overtime wages and salaries.

**Response to ICNU Data Request 9.8**

Please refer to Attachment ICNU 9.8 for the total-Company and Oregon-allocated share of the requested wage and salary information. For 2007 and 2008, PacifiCorp began using FERC 707 for a labor clearing account. The total salary and wages are booked to FERC 707 and allocated out to the various other FERC accounts using labor allocations from time entry. The response provided shows only the total wages and salaries booked and excludes all labor allocation activity since this is considered secondary labor. FERC 707 has a zero balance on a consolidated basis.

**Please refer to non-confidential Attachment ICNU 9.8 on the enclosed CD.**

### **ICNU Data Request 9.8**

Provide the following information for Pacific Power Oregon for each of the calendar years 2008, 2007, 2006, 2005, and 2004:

- a. Total wages and salaries
- b. Total wages and salaries charged to accounts 500 through 932
- c. Total wages and salaries charged to capital or other balance sheet accounts
- d. Total regular wages and salaries
- e. Total overtime wages and salaries.

### **1<sup>st</sup> Supplemental Response to ICNU Data Request 9.8**

Please see below for follow-up questions from ICNU and the Company's responses regarding the Company's original response to ICNU Data Request 9.8, dated July 2, 2009.

**Confirm that the information provided in response to ICNU Data Requests 9.8 and 9.9 is payroll only. There are no benefits or payroll taxes included.**

The Company confirms that there are no benefits or payroll taxes included in the Company's original response to ICNU Data Requests 9.8 and 9.9.

**Confirm that the total payroll provided in response to ICNU Data Request 9.8 on the tabs labeled 2004, 2005, 2006, 2007, and 2008 is total payroll. Is payroll expense the amount from the individual year tab less the capitalized labor from the CapLabor 2004-2008 tab?**

Yes. The total payroll amount provided in Attachment ICNU 9.8, on the tabs labeled 2004, 2005, 2006, and 2008, is the gross expense which excludes any capitalization. The net payroll expense would be the gross expense amount for each of those years less the capitalized portion shown on the CapLabor 2004 – 2008 tab.

**Confirm that the information provided in response to ICNU Data Request 9.8 on the tabs labeled 2004, 2005, 2006, 2007, 2008 includes non-utility payroll (accounts 416 through 426.5) that should be excluded if it is to be compared to total Labor and Incentives on page 4.2.2 of Exhibit PPL/702.**

Yes. The amounts provided were total company gross expense and the corresponding capitalized portion of those expenses.

### **ICNU Data Request 9.8**

Provide the following information for Pacific Power Oregon for each of the calendar years 2008, 2007, 2006, 2005, and 2004:

- a. Total wages and salaries
- b. Total wages and salaries charged to accounts 500 through 932
- c. Total wages and salaries charged to capital or other balance sheet accounts
- d. Total regular wages and salaries
- e. Total overtime wages and salaries.

### **2<sup>nd</sup> Supplemental Response to ICNU Data Request 9.8**

In the Company's original response to ICNU 9.8, the Company provided the responsive data it had available and indicated that it was incomplete because: (1) it did not reflect the allocation of FERC 707 expenses; and (2) it did not reflect the final allocation of other accounts.

FERC 707 is by far the largest account for labor costs. The numbers provided in the original response reflected FERC 707 costs as allocated to "other" instead of system. The effect of this was to reflect the FERC 707 costs in total expense (i.e. include it in the denominator), but incorrectly assign none of the expense to Oregon (i.e. exclude it from the numerator). The result produced allocation ratios of 19.90% and 18.86% in 2007 and 2008, respectively. The allocation percentages in 2004-2006, before the Company used FERC account 707, ranged from 28.41% to 28.96%.

The Company began using FERC account 707 in 2007 as a temporary labor clearing account. Each month the labor expenses associated with the Company's power delivery employees (distribution and transmission functions) are temporarily charged to this account. Through the Company's labor allocation activity process (secondary labor settlements), the amounts charged to FERC account 707 are credited with the offsetting debit booked to the appropriate FERC accounts with correct revised protocol factors based on the type of work identified. As shown on the "2008" tab, lines 953 and 954 of the original Attachment ICNU 9.8, FERC account 707 includes significant balances which are not allocated to any state. These balances represent the labor expenses associated with the Company's power delivery employees and will remain in FERC account 707 until the labor allocation activity is processed within the Company's accounting system (SAP). Once the labor allocation activity is processed, FERC account 707 is left with zero balance.

A high-level approximation of the total Oregon allocation share of FERC 707 costs can be determined by allocating the balances included in that account by the System Net Plant Distribution (SNPD) factor. Attachment ICNU 9.8 – 2<sup>nd</sup>

Supplemental provides this data. The table below shows the approximate Oregon allocation when FERC 707 is allocated in this manner. Please note that accurate state allocation percentages can only be determined after the labor allocation activity is processed for each of the years shown in the attachment. This processing ensures that labor expenses are booked to the appropriate FERC accounts with correct revised protocol allocation factors.

Year	*Approximate Oregon Allocation %
2004	29.0%
2005	28.5%
2006	28.4%
2007	28.4%
2008	28.2%

*\*These percentages are approximations only based on data extracted from SAP before labor allocation activity processing. The labor allocation activity must be processed to determine the final FERC account and allocator. The labor allocation activity settlement process includes wages, salaries, benefits, etc. and cannot be run for wages and salaries only.*

The Company's CY 2010 projection of Oregon-allocated labor and benefit expenses as filed in Exhibit PPL/702 is based on actual data for the 12-month period ending June 2008, including all labor allocation activity processing. These percentages are shown in the table below.

Year	*Actual Oregon Allocation %'s After Labor Allocation Activity is Processed
12 ME June 2008	29.5% Actual
CY 2010 Forecast (PPL/702)	29.5% Projected based on June 08 Actuals

*\* These percentages are determined after all labor allocation activity is processed for all components of labor (wages, benefits, pensions, etc.)*

**Please refer to non-confidential Attachment ICNU 9.8 – 2nd Supplemental on the enclosed CD.**

**ICNU Data Request 9.33**

Provide the following information for Pacific Power Oregon by month for January through May 2009:

- a. Total wages and salaries
- b. Total wages and salaries charged to accounts 500 through 932
- c. Total wages and salaries charged to capital or other balance sheet accounts
- d. Total regular wages and salaries
- e. Total overtime wages and salaries.

**Response to ICNU Data Request 9.33**

Please refer to Attachment ICNU 9.33. PacifiCorp uses FERC 707 as a labor clearing account. The total salary and wages are booked to FERC 707 and allocated out to the various other FERC accounts using labor allocations from time entry. The response provided shows only the total wages and salaries booked and excludes all labor allocation activity since this is considered secondary labor. FERC 707 has a zero balance on a consolidated basis.

**Please refer to non-confidential Attachment ICNU 9.33 on the enclosed CD.**

**ICNU Data Request 9.33**

Provide the following information for Pacific Power Oregon by month for January through May 2009:

- a. Total wages and salaries
- b. Total wages and salaries charged to accounts 500 through 932
- c. Total wages and salaries charged to capital or other balance sheet accounts
- d. Total regular wages and salaries
- e. Total overtime wages and salaries.

**1<sup>st</sup> Supplemental Response to ICNU Data Request 9.33**

Please refer to the Company's 2<sup>nd</sup> Supplemental response to ICNU Data Request 9.8. In connection with that response, the Company is also providing attachment ICNU 9.33 1<sup>st</sup> Supplemental which allocates FERC account 707 on an SNPD factor for a high-level approximation of the total Oregon allocation share of the costs. This attachment is consistent with the Attachment ICNU 9.8 2<sup>nd</sup> Supplemental.

Please note that accurate state allocation percentages can only be determined after the labor allocation activity is processed. This processing ensures that labor expenses are booked to the appropriate FERC accounts with correct revised protocol allocation factors.

**Please refer to non-confidential Attachment ICNU 9.33 – 1st Supplemental on the enclosed CD.**



Docket No. UE-210  
Exhibit PPL/1100  
Witness: Richard A. Vail

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Reply Testimony of Richard A. Vail**

**August 2009**



1 **Q. Please state your name, business address and present position with**  
2 **PacifiCorp d/b/a Pacific Power (the “ Company” ).**

3 A. My name is Richard A. Vail. My business address is PacifiCorp, 825 NE  
4 Multnomah, Suite 1500, Portland, Oregon 97232. My position is Director of  
5 Asset Management for PacifiCorp.

6 **Q. Have you previously filed testimony in this case?**

7 A. No.

8 **Q. Please describe your education and business experience.**

9 A. I received a Bachelor of Science Degree in Electrical Engineering from Portland  
10 State University. In addition to formal education, I have attended numerous  
11 educational, professional, electric industry and asset management seminars. I  
12 have held a number of positions with the Company including Substation  
13 Engineer; Manager, Maintenance Planning; Manager, Capital Planning and  
14 Director; Investment Planning. During my 15 years of employment, I have  
15 gained extensive experience working across the Company’ s service territory prior  
16 to assuming my current position of Director, Asset Management.

17 **Purpose and Summary**

18 **Q. What is the purpose of your testimony?**

19 A. Along with Company witness Mr. R. Bryce Dalley, I respond to Staff witness Ms.  
20 Deborah Garcia’ s adjustment to rate base. The purpose of my testimony on this  
21 adjustment is to explain the Company’ s budgeting process for distribution plant  
22 additions and demonstrate why Ms. Garcia’ s removal of \$52 million of  
23 distribution plant additions from the test year is contradicted by her own

1 testimony. Specifically, I demonstrate that distribution plant additions are  
2 attributable to several drivers, not just load growth, and that the inclusion in rate  
3 base of items that are placed into service on an ongoing or monthly basis is  
4 reasonable. In addition, my testimony demonstrates that: (1) the Oregon  
5 distribution plant-in-service additions in this case are forecast at levels that are  
6 lower than actual plant-in-service additions for several years; and (2) Staff' s filed  
7 position for Oregon distribution plant-in-service additions is lower than actual  
8 additions since at least 2003. Similarly, Mr. Dalley' s testimony demonstrates that  
9 Staff' s significant reduction to plant-in-service produces a net plant-in-service for  
10 the calendar year 2010 test period that is less than the actual net plant-in-service  
11 through June 2009.

12 **Q. Please summarize Ms. Garcia' s proposed rate base adjustment as it applies**  
13 **to distribution rate base.**

14 A. Staff proposes to disallow over \$52 million of Company investment in the Oregon  
15 distribution system. This is composed of two categories of adjustments: (1)  
16 removal of 50 percent of the rate base additions between the June 2008 base  
17 period and the end of the 2010 test period that have “ monthly” or “ various” in-  
18 service dates, and (2) removal of 100 percent of all other rate base additions after  
19 the rate effective date of February 2, 2010, notwithstanding the fact that the test  
20 period in this proceeding is calendar year 2010. Of the \$52 million investment  
21 disallowance, \$50.7 million is associated with items in the former category. This  
22 adjustment is shown on Staff/103, Garcia/1.

1 **Q. On what rationale does Ms. Garcia rely in support of this significant**  
2 **disallowance of investment in the Company’ s Oregon distribution system?**

3 A. Ms. Garcia’ s testimony in support of this disallowance is not clear. On the one  
4 hand, Ms. Garcia states:

5 “ Historically, the Commission has allowed a reasonable percentage  
6 increase in distribution plant rate base for a future test year,  
7 relative to the expected growth in a utility’ s customer base. The  
8 other point to this accommodation is that, aside from installing  
9 new distribution plant, the utility has ongoing obligations related to  
10 safety and reliability to repair, replace, or reinforce this plant.  
11 Staff/100, Garcia/8, lines 16-21.”

12 “ Some examples of these costs are for the poles, wires, meters and  
13 other plant necessary to distribute electricity to customers. These  
14 costs are ongoing in nature and can be reasonably assumed to be  
15 made on a regular basis. Staff/100, Garcia/8 lines 13-16.”

16 “ A review of the items in the Distribution category confirms that  
17 they are necessary for the direct provision of service to customers,  
18 such as wires, poles, meters, etc. Staff/100, Garcia/9, lines 12-14.”

19 Even while expressly acknowledging the necessary and recurring nature of this  
20 investment, Ms. Garcia recommends removing 50 percent of the items with in-  
21 service dates that occur on an on-going or monthly basis. Her recommendation is  
22 supported, she claims, by a “ finding that PacifiCorp has proposed a level of  
23 Distribution Plant that is more than three times higher than projected customer  
24 growth.” Staff/100, Garcia/12, lines 2-3.

25 **Q. Does the Company agree with Staff’ s proposed disallowance?**

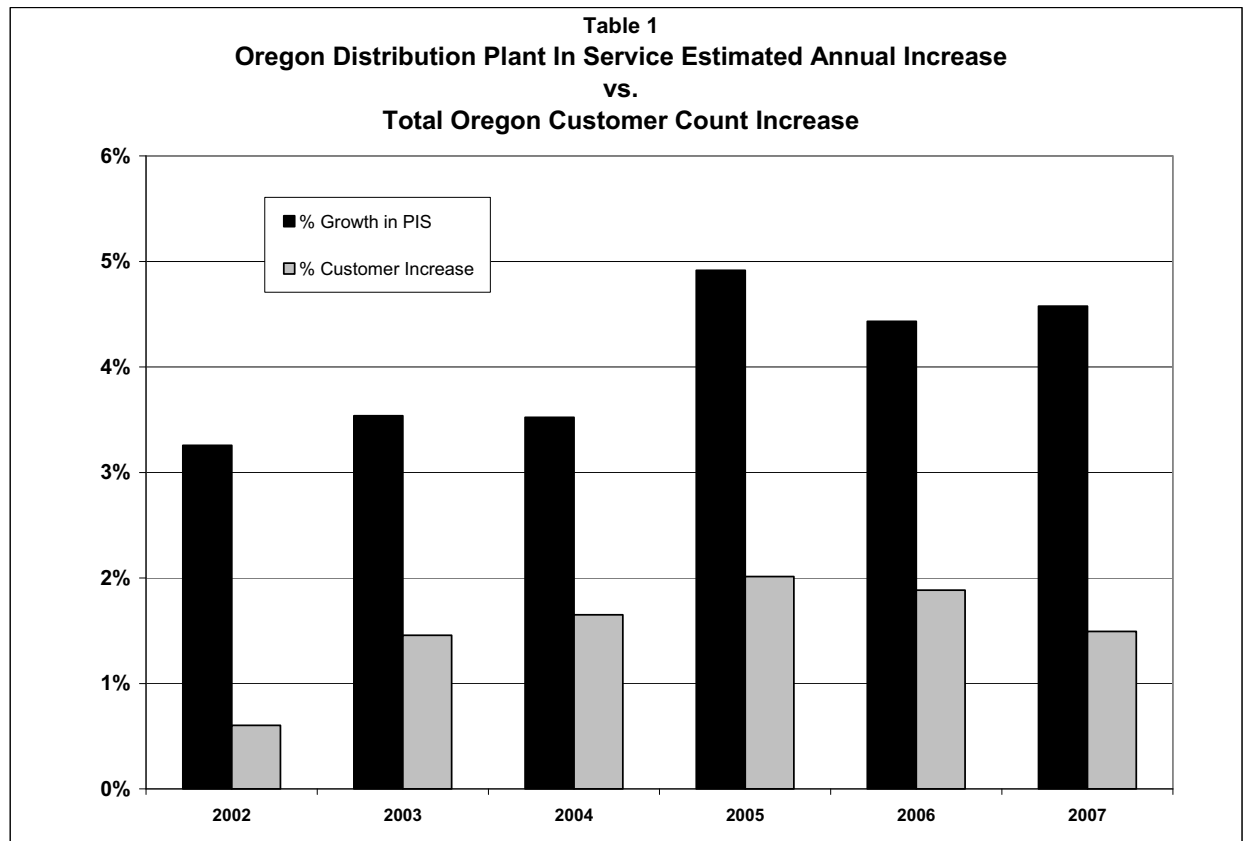
26 A. No. The significant and unprecedented disallowance of investment in the Oregon  
27 distribution system is contradicted by Ms. Garcia’ s own testimony that these  
28 distribution investments “ are necessary for direct provision of service to  
29 customers.” As I show below, Staff is correct that the Company’ s distribution

1 investments included in this filing are necessary for the safety and reliability of  
2 the system. The level of distribution plant investment cannot simply be tied to  
3 customer growth, and the nature of distribution plant makes it difficult to forecast  
4 specific in-service dates, thus leading to items with ongoing and monthly in-  
5 service dates.

6 **Distribution Plant Investment**

7 **Q. How does the Company' s plant-in-service growth compare to customer**  
8 **growth?**

9 A. Table 1 below shows PacifiCorp' s Oregon distribution plant-in-service increases  
10 compared to the changes in customer growth since 2002. As this table shows,  
11 customer growth does not consistently track with increases in plant-in-service. In  
12 light of the age of PacifiCorp' s asset base, and increasing regulatory and other  
13 demands, it is incorrect to assume that increases in distribution plant are driven  
14 solely by customer growth. Safety, reliability and obsolescence are also factors  
15 that must be considered.



1 **Q. Does Ms. Garcia’ s testimony recognize that distribution investment is not**  
2 **solely related to customer growth?**

3 A. Yes. As noted above, she acknowledges, “ aside from installing new distribution  
4 plant, the utility has ongoing obligations related to safety and reliability to repair,  
5 replace, or reinforce this plant.” Staff/100, Garcia/8, lines 19-21.

6 **Q. What types of costs are generally included in the budget for distribution**  
7 **plant?**

8 A. Distribution plant expenditures include replacement of aging or failed assets,  
9 costs to address increased demand by existing customers, costs to install assets  
10 required to maintain compliance with right-of-way agreements, state and federal

1 regulatory requirements, and funding to improve reliability and otherwise upgrade  
2 the performance of the asset base.

3 **Q. How does the Company develop its capital budget for distribution**  
4 **expenditures?**

5 A. PacifiCorp' s capital budget for distribution is broken down into the following  
6 major categories:

- 7 • New Connects
- 8 • Mandated/Compliance
- 9 • System Reinforcement
- 10 • Asset Replacement/Renewal
- 11 • Performance Upgrades/Reliability

12 In developing the budget, PacifiCorp' s first priority is to identify non-  
13 discretionary expenditures required to operate its business. A second level of  
14 investment is then identified, which have some discretionary aspects, but are  
15 critical to the operation of the asset base. Finally, a third level of investment is  
16 identified that includes investments that may be termed “ discretionary,” but which  
17 deliver a significant benefit to customers. The spending in these categories is  
18 aggregated to form the capital budget which is then managed through the year.

19 **Q. What type of expenditures are typically identified by the Company as non-**  
20 **discretionary?**

21 A. Non-discretionary expenditures generally include costs associated with  
22 mandates/compliance, costs to connect new customers per tariff requirements and  
23 costs to replace assets.

1 Mandates and compliance issues include such items as highway or  
2 roadway relocations, overhead to underground conversions, and investments  
3 required to maintain compliance with environmental regulations. The budget  
4 levels for these items are determined by a combination of known factors such as  
5 avian mitigation commitments to the Fish and Wildlife Service and estimates and  
6 reviews of historical run rates for things such as roadway relocations.

7 Costs to connect new customers per tariff requirements are estimated  
8 based on forecasts of new connect volume and historical cost per unit data. New  
9 connect volume forecasts are developed through review of economic trends and  
10 forecasts and historical data.

11 Assets are replaced that fail in service due to age, deterioration and storm  
12 and casualty damage. A large component of this category in Oregon is the  
13 distribution pole replacement program. The main driver for this program is the  
14 requirements associated with service quality performance measures adopted in  
15 Order No. 98-191 and Oregon Administrative Rules 860-024-010 through 860-  
16 024-012. These require PacifiCorp to replace or reinforce deteriorated poles that  
17 are discovered through inspection and testing programs within specified  
18 timeframes. PacifiCorp maintains detailed records on the actual quantity of  
19 deteriorated poles outstanding and uses this data together with reasonable  
20 projections based on over 10 years of inspection results to forecast this work in  
21 the future.

1 **Q. Please explain what types of expenditures are in the second level of**  
2 **investment - costs that have some discretionary aspects but are critical to the**  
3 **operation of the asset base.**

4 A. These expenditures include costs to add capacity to the distribution system to  
5 accommodate load growth and funding for targeted reliability improvement  
6 efforts.

7 The costs to add capacity for load growth are typically to construct  
8 additional substation capacity or to add distribution feeder capacity. The projects  
9 are all proposed to alleviate situations where the actual loading of the equipment  
10 has exceeded nameplate or thermal ratings. While these projects may be deferred  
11 for a short period, the risks of continued load growth with subsequent customer  
12 impacts if equipment were to fail are not acceptable.

13 The Company' s reliability improvement spending is intended to continue  
14 to deliver reliability performance consistent with the levels agreed upon with  
15 Commission Staff in the Company' s service quality measures, adopted in UE 94.

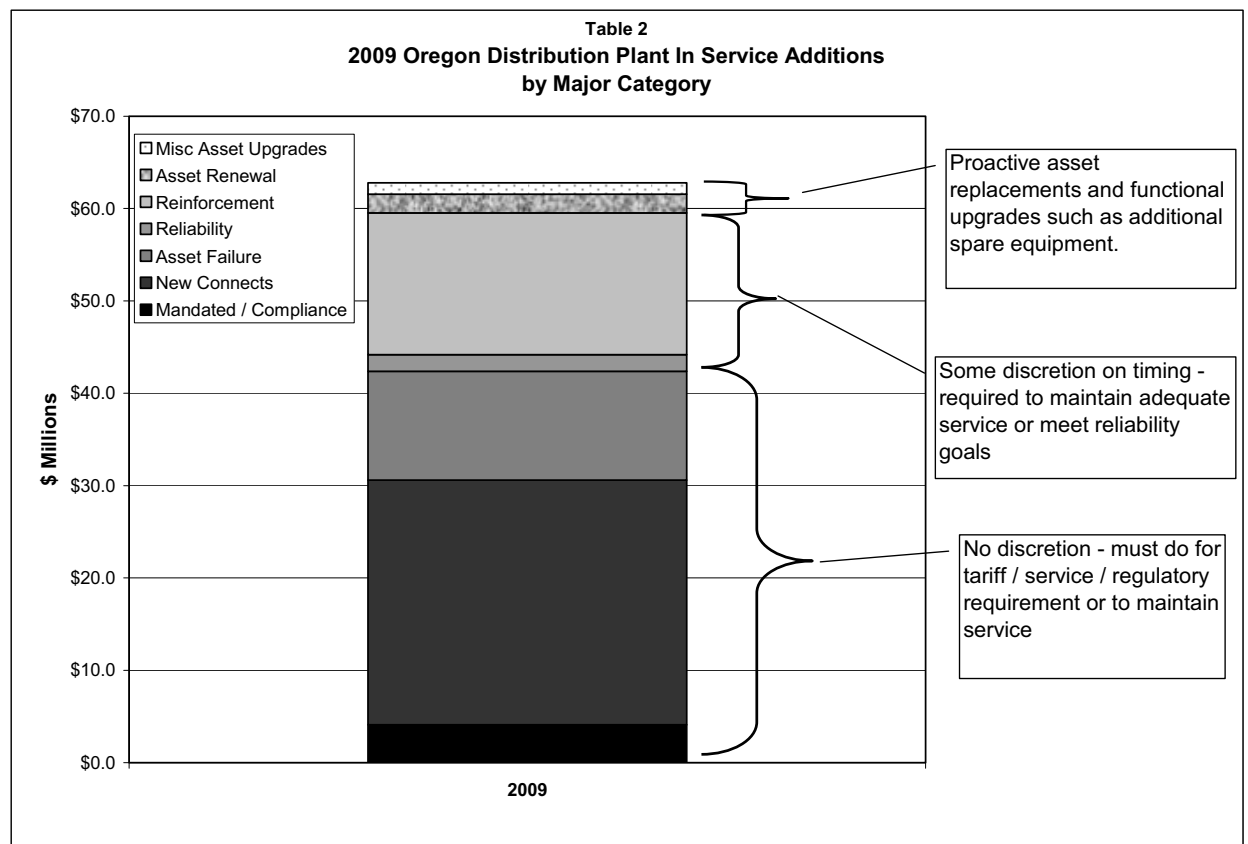
16 **Q. Please explain what types of expenditures are in the third level of investment**  
17 **- costs that may be considered discretionary.**

18 A. Examples of discretionary investments include replacement of aging or  
19 deteriorated equipment prior to failure which will avoid customer outages and  
20 reduce fault response costs. It also includes increasing spare equipment and  
21 emergency response equipment inventories to mitigate impacts of storms or  
22 equipment failures. While these costs may be considered discretionary, they  
23 provide significant benefits to customers for reliability.



1 **Q. Once these costs have been identified, how do they stack up to one another in**  
 2 **the distribution plant budget?**

3 A. Table 2 below shows the breakdown of costs included in the budget for 2009,  
 4 which is part of this filing. As the table shows, over 95 percent of the Company's  
 5 proposed plant-in-service additions are limited or non-discretionary items,  
 6 essential for maintaining regulatory compliance and reliable service.



7 Table 1 and Table 2 together demonstrate that Staff's adjustment on the basis that  
 8 distribution plant investment is higher than load growth is not valid since the  
 9 drivers for investment are not limited to customer growth, and in fact, costs  
 10 associated with customer growth are only a fraction of the total.

1 **“ Various” or “ Monthly” In-Service Dates**

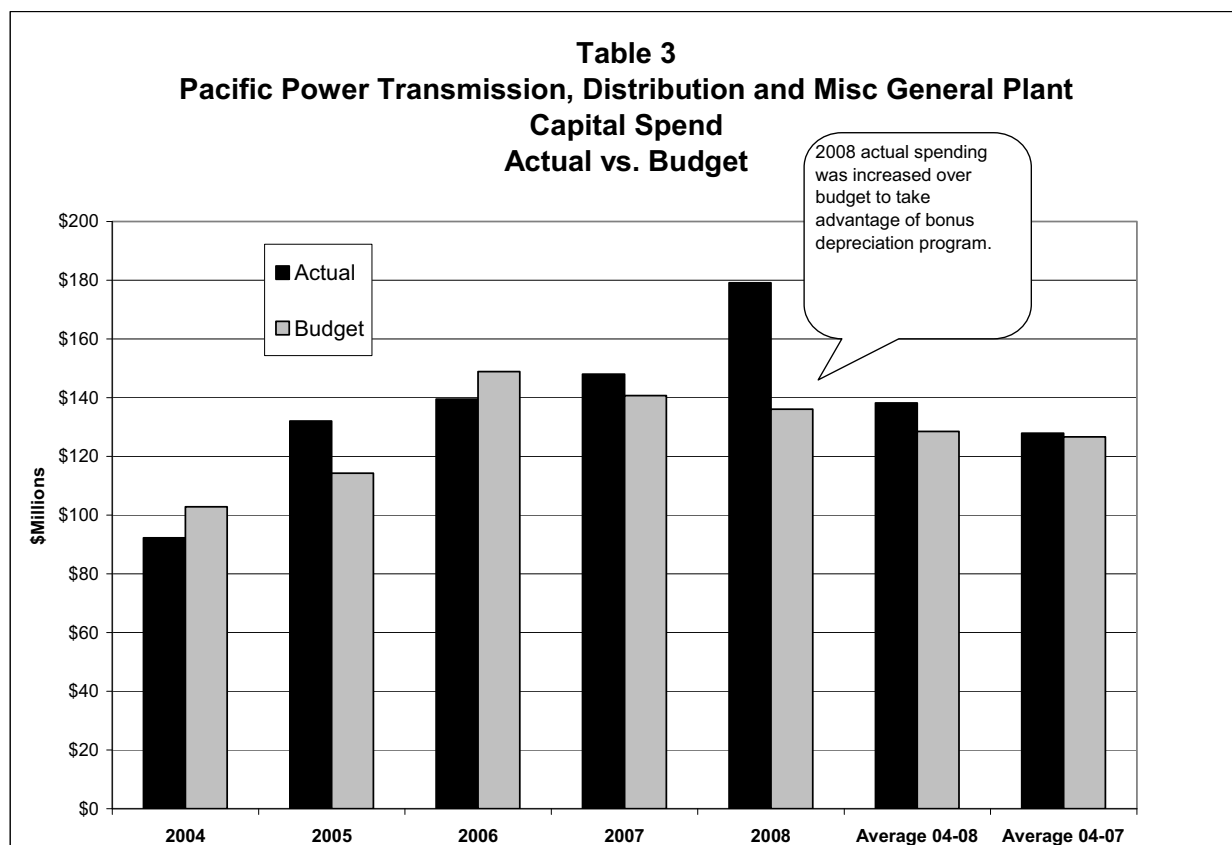
2 **Q. Please explain why PacifiCorp identifies certain distribution items as having**  
3 **“ monthly” or “ various” in-service dates**

4 A. PacifiCorp budgets projects greater than \$1 million individually. Typical  
5 examples would include substation construction projects where additional  
6 distribution voltage capacity is being added (e.g., 12 kV to 25 kV). Within  
7 PacifiCorp’ s capital budget plan for Oregon, there are individual projects with a  
8 distribution component greater than \$1 million. However, the vast majority of  
9 distribution projects are small work efforts, such as installing distribution  
10 facilities for a new residential customer or replacing a transformer. Each of these  
11 items is represented by a separate element in the Company’ s accounting system,  
12 with an individual in-service date. For instance, in 2008 the Oregon distribution  
13 plant in-service consisted of approximately 5,600 individual elements, with an  
14 average cost of \$10,800.

15 Due to the high volume of these small projects, it would be time  
16 consuming to develop a forecast with exact in-service dates and budgetary figures  
17 for each element. PacifiCorp does, however, have processes in place to generate  
18 reasonable forecasts of these costs that are used in developing the budget. The  
19 term “ various” is used to capture costs of this nature that are on-going and placed  
20 in service in more than one month. For instance, the Company knows that  
21 transformers will fail, but the Company cannot predict the specific date to budget  
22 a replacement. Instead, the Company assumes certain on-going levels of  
23 expenditures for these small distribution projects.

1 **Q. Even with the budgetary and forecasting methods, due to the nature of the**  
2 **required investment in the distribution system, won' t there be variations in**  
3 **spending from planned amounts?**

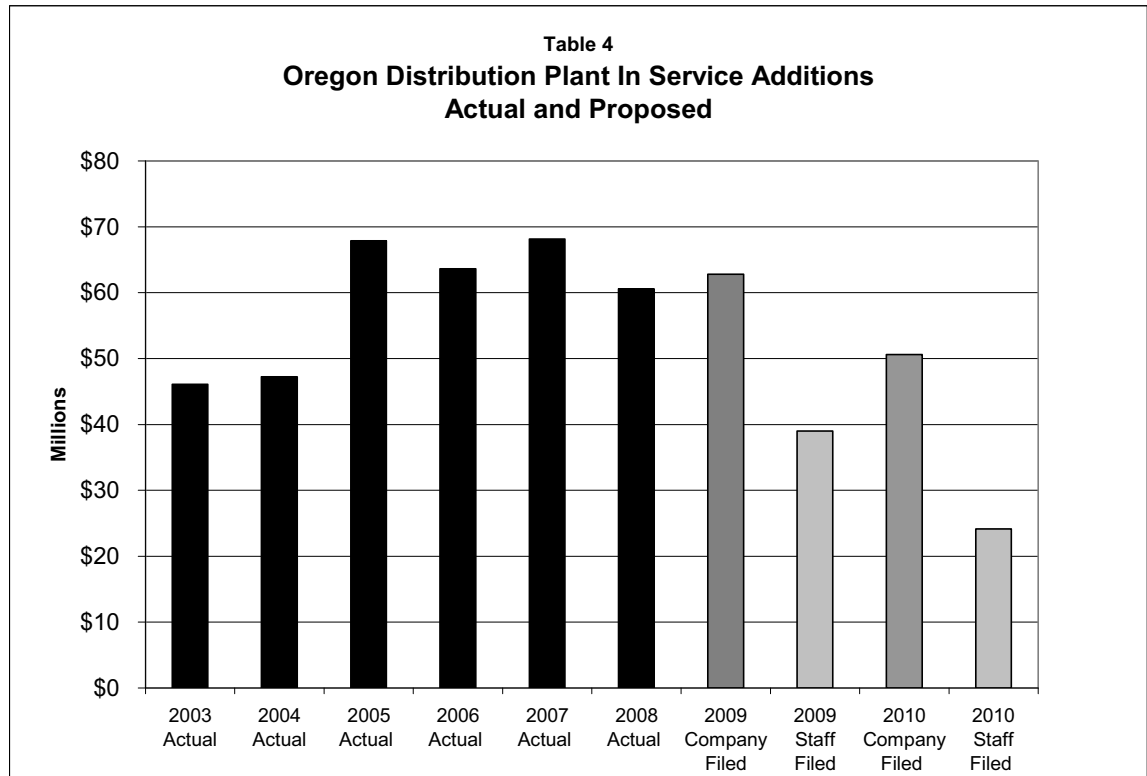
4 A. Yes, although history shows that the variations are small. PacifiCorp establishes  
5 annual capital budgets to which it closely adheres. Increases in spending in a  
6 particular program due to unforeseen circumstances are offset by targeted  
7 reductions in other programs. Table 3 below illustrates the planned versus actual  
8 capital spending for the Pacific Power transmission and distribution system. As  
9 shown, while there may be some small variations in total planned versus actual  
10 spending on a year to year basis, the Company typically delivers the planned  
11 capital spending which translates into the delivery of planned plant-in-service  
12 additions.



1 **Q. How do the distribution plant additions in the filing compare to previous**  
2 **years?**

3 A. As shown in Table 4 below, the proposed Oregon distribution plant additions for  
4 2009 and 2010 are consistent with the amounts delivered in recent years. Note  
5 that the budgeted level for 2010 included in the filing is less than 2008 actual  
6 expenditures or 2009 proposed expenditures. This is because the Company has  
7 already taken into consideration a slower customer growth rate due to the current  
8 economic conditions and because 2008 and 2009 included certain large  
9 distribution substation capacity projects being placed in service in Oregon. The  
10 table also shows that Staff's proposed cuts to distribution rate base would result in  
11 investment levels that are significantly below prior year expenditures since 2003,

1 which could compromise the safety and reliability of the system. This table  
2 further demonstrates that the Oregon distribution costs included in the filing are  
3 reasonable.



4 **Q. Does this conclude your testimony?**

5 **A. Yes.**



Docket No. UE-210  
Exhibit PPL/1200  
Witness: Kenneth T. Houston

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Reply Testimony of Kenneth T. Houston**

**August 2009**

1 **Q. Please state your name, business address and present position with**  
2 **PacifiCorp d/b/a Pacific Power (the “ Company” ).**

3 A. My name is Kenneth T. Houston; my business address is PacifiCorp, 825 NE  
4 Multnomah, Suite 1600, Portland, Oregon, 97232. My position is Director,  
5 Transmission for PacifiCorp.

6 **Q. Have you previously filed testimony in this case?**

7 A. No.

8 **Q. What are your responsibilities?**

9 A. In my current role, I am responsible for Open Access Transmission Tariff  
10 (“ OATT” ) Administration, which includes responding to customer requests for  
11 interconnection to PacifiCorp’ s transmission system and responding to  
12 transmission service requests. I am also responsible for managing the  
13 interconnection and contract requirements for open access customers and for  
14 interconnections with neighboring utilities.

15 **Q. Please summarize your educational and professional background.**

16 A. I hold a Bachelor’ s Degree in electrical engineering and a Master’ s Degree in  
17 management. I am registered as a professional engineer in Oregon, New Mexico,  
18 and Texas. I have held engineering design, operations, and management positions  
19 in distribution and transmission roles for three electric utilities over the past 27  
20 years. My major responsibilities have included managing the OATT for the New  
21 Mexico assets of Texas New Mexico Power Company during the late 1990’ s;  
22 developing the requirements, contracts, infrastructure, and staff training related to  
23 establishing a new control area in the Electric Reliability Council of Texas



1 (“ERCOT”) during 1996 and 1997; and, beginning in 2000, regular interactions  
2 with several technical and market work groups established by ERCOT to develop  
3 the market protocols that were later utilized to implement retail competition and  
4 market deregulation in Texas.

5 Between 2001 and 2003, my employer was a newly established affiliate of  
6 Texas New Mexico Power Company, First Choice Power. My role was to  
7 purchase energy, fuel, and transmission rights as required to serve the  
8 competitively acquired retail customer base in the deregulated Texas market. In  
9 2003, I accepted a position with PacifiCorp and have served in variations of my  
10 current role since that time.

11 **Purpose and Summary**

12 **Q. What is the purpose of your testimony?**

13 A. I respond to the testimony of Staff witness Mr. Ed Durrenberger, who proposes to  
14 disallow approximately \$47 million from the Company’s rate base related to  
15 investment in the Company’s transmission system. Specifically, Mr.  
16 Durrenberger proposes adjustments to three transmission plant additions: the  
17 Three Mile Knoll substation, the Chappel Creek/Cimarex line extension, and the  
18 McClelland-Emigration tap upgrade.

19 **Q. Please summarize your testimony.**

20 A. My testimony demonstrates that these three investments are prudent capital  
21 additions to PacifiCorp’s network transmission system with costs appropriately  
22 allocated to Oregon under the Revised Protocol inter-jurisdictional cost allocation  
23 methodology. I demonstrate that the basis for Mr. Durrenberger’s adjustments are

1 flawed and that the Commission should reject these proposed adjustments.

2 Specifically, my testimony establishes that:

- 3 • The total cost for the Three Mile Knoll substation is prudent and  
4 reasonable when actually compared against a similarly situated  
5 substation;
- 6 • The costs of the Chappel Creek/Cimarex line extension were  
7 appropriately shared between Cimarex and PacifiCorp’ s other  
8 customers; and
- 9 • Both the Chappel Creek/Cimarex line extension and the McClelland-  
10 Emigration tap upgrade are transmission-level voltage projects that  
11 provide stability to PacifiCorp’ s network system and should be  
12 allocated consistently with the Revised Protocol.

13 **Three Mile Knoll Substation**

14 **Q. Please summarize Mr. Durrenberger’ s proposed adjustment to the cost of**  
15 **the Three Mile Knoll substation.**

16 A. Staff proposes to disallow \$24 million of the Company’ s investment in the Three  
17 Mile Knoll substation by reducing rate base from \$56 million to \$32 million on a  
18 total-company basis. Staff asserts that the cost of the Three Mile Knoll substation  
19 is too high based on an informal e-mail exchange between Staff and the  
20 Bonneville Power Administration (“ BPA” ) related to cost estimates of “ similarly  
21 situated” substations. Mr. Durrenberger also raises concerns that PacifiCorp has  
22 inappropriately included costs for a potential expansion of the Three Mile Knoll  
23 substation in its rate base request.

1 **Q. Do you have concerns with Mr. Durrenberger’ s analysis of the substation?**

2 A. Yes, I have several concerns. First, Mr. Durrenberger’ s testimony and e-mail  
3 exchange with BPA incorrectly describe the characteristics of the substation,  
4 which then forms the basis for his cost comparison of “ similarly situated”  
5 substations. The Three Mile Knoll substation has many unique characteristics and  
6 was constructed based on the results of a competitive procurement process to  
7 ensure that the costs are prudent and reasonable. Second, Mr. Durrenberger raises  
8 concerns regarding recovery of costs to accommodate future possible expansion.  
9 Designing a substation to accommodate future expansion is an appropriate  
10 undertaking that will benefit customers over time. I discuss each of these points  
11 in turn.

12 **Q. In his testimony, Mr. Durrenberger describes the Three Mile Knoll**  
13 **substation as “ a transmission level substation with a single 230-138 kV**  
14 **transformer and other switching gear.” Is this description correct?**

15 A. No. The Company provided a description of the Three Mile Knoll substation  
16 project in Exhibit PPL/702 at page 8.6.24. The description states: “ The substation  
17 will consist of one 345-138 kilovolt, 700 megavolt-ampere transformer, three 345  
18 kilovolt breakers, breaker-and-a-half protection scheme, and a 138 kilovolt  
19 switchyard.”

20 **Q. Do the plans or description provided by the Company in response to Staff**  
21 **data request 273 indicate a 230-138 kV substation?**

22 A. No. All information provided by the Company describes a new 345-138 kV  
23 substation.

1 **Q. Mr. Durrenberger notes that BPA indicated that its budgetary numbers used**  
2 **for similarly situated substations range from \$17 to \$25 million. Do you**  
3 **agree with this assessment?**

4 A. No, based on the information requested and received by Staff from BPA, they  
5 neither asked for nor received budgetary numbers from BPA for a similarly  
6 situated substation; the range of costs received from BPA should therefore be  
7 disregarded. Exhibit PPL/1201 includes the Staff response to Company data  
8 request 3.1 and contains a copy of the informal e-mail exchange between Staff  
9 and BPA. It shows that Staff asked for “ a high-level cost estimate” for a  
10 transmission substation that was different from Three Mile Knoll and received  
11 “ ball park rough” numbers for substations that were different from Three Mile  
12 Knoll. Specifically, Staff requested cost ranges for transmission substations of  
13 500 kV-345 kV or 345 kV-230 kV; BPA responds with numbers for 500 kV-230  
14 kV. Therefore, Staff’ s cost estimate is not relevant for the Three Mile Knoll  
15 substation. Furthermore, BPA’ s e-mail notes, “ Price will go up from here  
16 depending on the number of breakers and bays on both the low side (230kv) and  
17 number breakers and bays on the high side (500kv), and if capacitor banks are  
18 also needed, etc.” This demonstrates that in order to have a reliable cost estimate,  
19 it is necessary to have a detailed scope of the functions, layout and design of the  
20 specific project.

21 **Q. Are there unique characteristics of the Three Mile Knoll substation that need**  
22 **to be considered when making cost comparisons to other substations?**

23 A. Yes, the substation has several unique features, including series compensation, a

1 line reactor, and a substantial 138 kV yard including six line terminations. The  
2 138 kV yard was constructed to replace an outdated 138 kV substation previously  
3 known as the Caribou station. The reconfigured 138 kV substation increases  
4 reliability for the 138 kV network by providing additional line breaker positions  
5 and a more reliable bus configuration.

6 **Q. Has the Company recently constructed a 345-138 kV substation similar to**  
7 **the Three Mile Knoll substation?**

8 A. Yes. The Company recently completed a 345-138 kV substation in the Salt Lake  
9 valley, known as the Oquirrh substation.

10 **Q. How does the cost of the Oquirrh substation compare to the cost of the Three**  
11 **Mile Knoll substation?**

12 A. Although the Three Mile Knoll and Oquirrh substations are not exactly alike, the  
13 cost of the Oquirrh substation was approximately \$50 million. In other words, the  
14 cost to construct the Oquirrh substation is similar to the cost to construct the  
15 Three Mile Knoll substation.

16 **Q. Did the Company conduct a competitive procurement process for the**  
17 **construction of the Three Mile Knoll substation?**

18 A. Yes. PacifiCorp issued a request for proposals on November 14, 2006 to  
19 construct the Three Mile Knoll substation. After reviewing and evaluating the  
20 bids on a least-cost, risk-adjusted basis, the Company ultimately selected the  
21 successful bidder.

1 **Q. Mr. Durrenberger indicates that the costs for the project include costs for**  
2 **possible future expansion. Do the plans provided by the Company in**  
3 **response to Staff data request 273 (Staff/402, Durrenberger/1-2) indicate a**  
4 **possible future expansion of the Three Mile Knoll substation?**

5 **A.** Yes. As indicated in Attachment 273d to that data request, the Three Mile Knoll  
6 substation was designed to accommodate an expansion in the future, specifically a  
7 second 345-138 kV transformer. The second transformer would be added in the  
8 future to support reliability and load growth needs.

9 **Q. Were any of the costs associated with designing the facility for potential**  
10 **future expansion of the Three Mile Knoll substation included in the**  
11 **Company' s request for inclusion in rate base?**

12 **A.** Yes. The substation was designed, graded, grounded and fenced to accommodate  
13 future expansion. These are the only future expansion costs included in rate base  
14 in this proceeding.

15 **Q. Why is it reasonable to include the costs associated with the accommodation**  
16 **for future expansion with the project costs in this proceeding?**

17 **A.** It is prudent utility practice to recognize future expansion requirements during the  
18 initial design phase in order to achieve efficiencies that will, in the longer term,  
19 decrease costs to customers for the same level of service. When a new substation  
20 is constructed, the ultimate design is evaluated with this in mind. Property is  
21 purchased, grading is completed, and fencing and grounding are installed during  
22 initial construction to minimize the total installed cost of the ultimate design. This  
23 is accomplished by permitting the ultimate substation layout once, and

1 incorporating a substation design that will not require substantial rework during  
2 future expansions.

3 **Chappel Creek/Cimarex Line Extension**

4 **Q. Please summarize Mr. Durrenberger’ s proposed adjustment for the Chappel**  
5 **Creek/Cimarex line extension project (“ Chappel Creek Project” ).**

6 A. Staff proposes to disallow \$15.6 million of the total-Company investment in the  
7 Chappel Creek Project. The adjustment is based on the following erroneous  
8 assumptions: (1) the project was completed for the sole benefit of a single  
9 customer that should be responsible for all costs above the line extension  
10 allowance; and (2) the line extension was a general distribution improvement in  
11 Wyoming and therefore should be paid for by Wyoming customers.

12 **Q. Do you agree with Staff’ s claim that the Chappel Creek Project was**  
13 **completed for the sole benefit of a single customer, Cimarex Energy?**

14 A. No. The Chappel Creek Project was identified as the least-cost alternative to  
15 address overloaded 69-kV transmission lines and deteriorating transmission  
16 voltage levels in the Pinedale area of Wyoming. For the most part, the Chappel  
17 Creek Project would have been completed irrespective of Cimarex Energy’ s load  
18 request.

19 Sublette County, Wyoming is an area of significant load growth in which  
20 there are large industrial customers who have requested load service, such as  
21 Cimarex and Air Products. In addition, many small commercial and industrial  
22 customers in the Big Piney and Pinedale area are also requesting additional  
23 service due to load growth. Because the 69 kV transmission line between

1 Labarge and Big Piney had reached voltage and thermal limits, all customers in  
2 Sublette County will benefit from these transmission upgrades.

3 The master plan for the area includes additional transmission  
4 infrastructure to be installed from Chimney Butte to Paradise and from Paradise to  
5 Jonah Field and onto a future substation on the Atlantic City-Rock Springs line.  
6 This will create a network transmission path that is an integral part of the  
7 PacifiCorp transmission network. Completion of this ultimate layout also adds to  
8 the reliability of the main grid transmission system.

9 **Q. Were any elements of the Chappel Creek Project constructed for the sole**  
10 **benefit of Cimarex Energy?**

11 A. Yes. Certain elements of the project were constructed solely to accommodate a  
12 50 MW service request by Cimarex Energy. For example, the 230 kV  
13 transmission line between the Chimney Butte substation and the Cimarex facility  
14 is being constructed for the sole purpose of serving Cimarex Energy' s 50 MW  
15 load request.

16 **Q. Were the costs for any elements of the project shared between PacifiCorp**  
17 **and Cimarex Energy?**

18 A. Yes. Certain elements of the project were a necessary transmission system  
19 improvement, accelerated by Cimarex Energy' s load request. The costs for those  
20 elements were allocated on a *pro rata* basis between Cimarex Energy and the  
21 Company, based upon the percentage of capacity required to accommodate the  
22 load request. For example, it was necessary for PacifiCorp to address the existing  
23 33 MW load in the area. One solution considered by the Company was to



1           construct a 230 kV line to Chimney Butte and install a 230-69 kV transformer.  
2           Per PacifiCorp’ s standards, the smallest conductor used on 230 kV is 795 ACSR  
3           (aluminum conductor steel reinforced).

4                       Also during this time, Cimarex requested a 230 kV connection to serve its  
5           50 MW of load in the same area. This also would have required a 230 kV line to  
6           be built from the Chappel Creek substation to Cimarex. As previously discussed,  
7           PacifiCorp also identified the need for a future 230 kV transmission loop through  
8           the Upper Green Basin to a future substation to be located on the Atlantic City –  
9           Rock Springs 230 kV line. The total cost of these three projects is far greater than  
10          a project that would solely benefit Cimarex. The 50 MW Cimarex request and the  
11          33 MW general Company need totaled 83 MW. Thus the cost sharing  
12          arrangement was established so that Cimarex was responsible for 50/83, or  
13          approximately 60 percent.

14                      The Company further decided to install a high capacity conductor 1272  
15          ACSR as part of an overall plan to upgrade the transmission network in southwest  
16          Wyoming and to provide enhanced long-term reliability. The costs of the  
17          conductor and the 40 percent share of the base cost of the total project are the  
18          basis of the Company rate base request in this proceeding. The proposed solution  
19          solves Cimarex’ s load request, solves PacifiCorp’ s immediate need to serve  
20          existing load in the area, and builds the first leg of a future 230 kV transmission  
21          path through a congestion portion of the Wyoming network – all in a cost-  
22          effective manner.

1 **Q. Was Cimarex provided a line extension allowance for their portion of the**  
2 **Chappel Creek Project?**

3 A. Yes, in part. As part of the 2005 Wyoming general rate case, PacifiCorp' s line  
4 extension tariff in Wyoming (Rule 12) was amended to eliminate the extension  
5 allowance for transmission voltage line extensions. As part of the transition,  
6 customers who had reached a certain point in line extension negotiations were  
7 grandfathered under the existing line extension tariff. Cimarex Energy originally  
8 requested 25 MW of load service under the pre-2005 line extension tariff.  
9 Subsequent to the elimination of the line extension allowance, Cimarex Energy  
10 requested an additional 25 MW of load service. Although Cimarex Energy total  
11 requested load service was 50 MW, it was only provided an allowance for 25  
12 MW.

13 **Q. Mr. Durrenberger suggests that this project is a distribution improvement,**  
14 **not transmission. Is this correct?**

15 A. No. This project is clearly transmission related. Both the Federal Energy  
16 Regulatory Commission (" FERC" ) and PacifiCorp classify lines at 46 kV and  
17 above as transmission.

18 **Q. How are costs for transmission investments allocated under the Revised**  
19 **Protocol for inter-jurisdictional cost allocations?**

20 A. Under the Revised Protocol adopted by the Commission in Order No. 05-021,  
21 costs associated with transmission assets are classified as 75 percent Demand-  
22 Related, 25 percent Energy-Related and allocated among the states based upon the

1 System Generation (“ SG” ) factor. The costs for this project were properly  
2 allocated in the Company’ s filing based on the Revised Protocol.

3 **McClelland-Emigration Tap Upgrade**

4 **Q. Please provide a brief description of the McClelland-Emigration tap upgrade**  
5 **project (“ McClelland Project” ).**

6 A. The foothill area of Salt Lake City is served by two 46 kV transmission line feeds  
7 from the McClelland substation, which are operated on a looped system. The area  
8 includes several hospitals, a university, and approximately 15,000 residential  
9 customers. Due to increased demand for electricity in recent years, system  
10 upgrades were required to support reliable load service in the area, especially  
11 during summer peak conditions. During any contingency in the area, lines  
12 became overloaded, shifting load and overloading adjacent lines, resulting in  
13 cascading outages throughout the system. To remedy the problem, the Company  
14 upgraded the transmission system to 138 kV by installing larger conductor and  
15 poles.

16 **Q. Please summarize Staff’ s adjustment to the costs for the McClelland-**  
17 **Emigration tap upgrade.**

18 A. Mr. Durrenberger proposes that the costs of the McClelland Project be assigned  
19 solely to Utah customers because, he argues, it only serves a narrow subset of  
20 Utah customers and does not benefit Oregon customers. Mr. Durrenberger states  
21 that he views these costs as “ more akin to distribution costs and not transmission  
22 costs given the need and use of the line.” Staff/400, Durrenberger/4. His

1 adjustment removes approximately \$7.4 million from total Company rate base, or  
2 \$2 million on an Oregon-allocated basis.

3 **Q. Do you agree with Staff’ s characterization of the McClelland Project as**  
4 **being “ more akin to distribution costs” ?**

5 A. No. As discussed above, both the FERC and PacifiCorp classify lines at 46 kV  
6 and above as transmission. The McClelland Project was required to upgrade an  
7 existing 46 kV transmission system to 138 kV. In other words, the cost of this  
8 transmission asset is clearly a part of the PacifiCorp transmission network and  
9 should be allocated among the states in accordance with the Revised Protocol.

10 **Q. Does this conclude your testimony?**

11 A. Yes.



Docket No. UE-210  
Exhibit PPL/1201  
Witness: Kenneth T. Houston

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of Kenneth T. Houston**

**OPUC Response to PacifiCorp' s Data Request**

**August 2009**

August 10, 2009

TO: Katherine McDowell  
Counsel for PacifiCorp

FROM: Judy Johnson  
Program Manager, Rates and Regulation

**OREGON PUBLIC UTILITY COMMISSION**  
**UE 210**  
**PacifiCorp's Third Set of Data Requests to OPUC**  
**Dated July 30, 2009 – Due August 10, 2009**  
**Data Requests 3.1-3.6**

**Request:**

- 3.1 See Staff/400, Durrenberger/3, lines 3-6. "I asked the Bonneville Power Administration (BPA) for a cost range for similar transmission voltage substations. The BPA indicated that budgetary numbers used for similarly situated substations would range from \$17 to \$25 million."
- a. Please provide the names and positions of all personnel at the Bonneville Power Administration who were contacted regarding the Threemile Knoll substation.
  - b. Please provide any and all documentation, including contingency capacity required for reliability purposes provided by the BPA to support a range of \$17 to \$25 million for a similarly situated substation.
  - c. Please provide analysis that indicates the level of communications infrastructure included in the BPA pricing, particularly any provisions made for remedial action schemes required for generator tripping.
  - d. Please detail what considerations were used to define a "similarly situated" substation.

**Response:**

- 3.1
- a. The individual consulted at BPA was Mr. Leon Kempner. He was contacted by JR Gonzalez, the Program Manager of the Utility Safety and Reliability Group at the PUC. Mr. Kempner indicated that the information he provided came from the BPA Substation Design Group.
  - b. The only document I have supporting the BPA estimate is a copy of the Email message Mr. Kempner sent to JR Gonzalez and forwarded on to me.
  - c. I do not have any communications infrastructure analysis supporting this adjustment.
  - d. The information supplied to Mr. Kempner was limited to the description of the substation contained in PacifiCorp Exhibit 702, item 8.6.24 which is the information provided by PacifiCorp in the Rate Case Filing.

**From:** GONZALEZ JR  
**Sent:** Monday, June 22, 2009 7:27 AM  
**To:** DURRENBERGER Ed  
**Subject:** FW: Transmission Substation Cost Range  
Ed,

Below is the response on reasonable cost range for a substation from my contact at BPA. It is what we were talking about... When you get some time, let's talk about it...

Thanks,

J. R. Gonzalez, P.E., Administrator  
Safety, Reliability & Security Division  
Oregon Public Utility Commission  
550 Capitol St. NE, Suite 215  
Salem, OR 97308-2148  
503-373-1531  
503-373-7752 (Fax)

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**From:** Kempner, Leon Jr - TEL-TPP-3 [mailto:lkempnerjr@bpa.gov]  
**Sent:** Wednesday, June 17, 2009 4:59 PM  
**To:** GONZALEZ JR  
**Subject:** RE: Transmission Substation Cost Range

JR,

The information below is what I was able to obtain from our Substation Design Group. I hope it helps.

Leon

Based on some recent projects at 500/230kv here are some "ball park rough" numbers:

17Million for a three bay 230 yard (with four breakers for three circuits) with little 500kv yard (no breakers, one circuit) and a 500/230kv 1300 mva transformer

25Million for a three bay 230 yard (with four breakers for three circuits) and minimum 500kv yard (three breakers, two circuits) and a 500/230kv 1300 mva transformer

Price will go up from here depending on the number of breakers and bays on both the low side (230kv) and number breakers and bays on the high side (500kv), and if capacitor banks are also needed, etc.

---

**From:** GONZALEZ JR [jose.gonzalez@state.or.us]  
**Sent:** Tuesday, June 16, 2009 4:41 PM  
**To:** Kempner, Leon Jr - TEL-TPP-3  
**Subject:** Transmission Substation Cost Range

Leon,

Hello!

I am trying to get a cost range for building a transmission sub (500 KV-345KV or 345KV-230KV), single transformer bank. I am looking for a high-level cost estimate, so I can make an educated decision on a study we are performing. For example, would a cost range of \$15 million to \$30 Million be a reasonable cost range for the above?



Exhibit PPL/1201  
Houston/3

I hope you can help me.

Thanks,

J. R. Gonzalez, P.E., Administrator  
Safety, Reliability & Security Division  
Oregon Public Utility Commission  
550 Capitol St. NE, Suite 215  
Salem, OR 97308-2148  
503-373-1531  
503-373-7752 (Fax)



Docket No. UE-210  
Exhibit PPL/804  
Witness: Erich D. Wilson

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Reply Testimony of Erich D. Wilson**

**August 2009**

1 **Q. Are you the same Erich D. Wilson who previously provided testimony in this**  
2 **docket?**

3 A. Yes, I am.

4 **Purpose and Summary**

5 **Q. What is the purpose of your reply testimony?**

6 A. The purpose of my testimony is to respond to certain labor and benefit cost  
7 adjustments proposed by the Staff of the Oregon Public Utility Commission  
8 (“ Staff” ) witnesses Ms. Lisa Gorsuch and Mr. Dustin Ball, and the joint witness  
9 for the Industrial Customers of Northwest Utilities and the Citizens’ Utility Board  
10 of Oregon (“ ICNU-CUB” ), Ms. Ellen Blumenthal. Specifically, I respond to  
11 proposed adjustments related to the Company’ s Annual Incentive Plan, medical  
12 benefits, 401(K) plan, pension administration expense, and worker’ s  
13 compensation insurance.

14 **Q. Please summarize your testimony.**

15 A. My testimony explains that:

- 16 • As a result of the emphasis on cost control, the Company’ s total wages and  
17 benefits remain almost constant, with only a one percent increase over the last  
18 four years. Moreover, the labor costs and benefits requested in this case are  
19 actually lower on a per megawatt-hour basis than those incurred in 2006.
- 20 • The Company’ s Annual Incentive Plan is an integral part of the Company’ s  
21 compensation strategy, and implements a “ pay-at-risk” approach that provides  
22 proper incentives to both executive and non-executive employees for the  
23 achievement of important Company goals. Because target pay under the plan

1 is set at market levels, reducing incentive pay as recommended by Staff and  
2 ICNU-CUB would result in below-market salaries for the Company' s  
3 workforce, limiting the ability to attract a competitive workforce and thus  
4 jeopardizing the Company' s safety, reliability, efficiency, and customer  
5 service goals.

- 6 • The Company' s health care expenses are based on careful research into  
7 medical care costs conducted specifically for the Company based on industry  
8 and Company-specific data. The Company' s health care expenses thus reflect  
9 the best forecast of costs for the test period. In contrast, the reductions  
10 proposed by Staff are based on more general and less accurate data.
- 11 • The Company accepts Staff' s proposed adjustment related to 401(K) expense.  
12 The ICNU-CUB proposed adjustment to 401(K) is absorbed within Staff' s  
13 adjustment, therefore no further adjustment is necessary.
- 14 • The Company' s pension administration expense included in the case is  
15 reasonable and properly reflects the expected costs in the test period.
- 16 • The Company accepts Staff' s proposed worker' s compensation insurance  
17 adjustment because it reflects an updated cost based on information that has  
18 become available since the initial filing.

19 **Q. Are there labor-related adjustments proposed in this case that you will not be**  
20 **addressing?**

21 A. Yes. Mr. R. Bryce Dalley will be addressing Ms. Blumenthal' s proposed  
22 adjustment to the Company' s forecast FTE/employee count, and her adjustment to  
23 the Company' s Oregon allocation factor for labor. Also, Mr. Bruce N. Williams

1 will be responding to Mr. Ball' s proposed adjustment to FAS 87 pension expense  
2 and FAS 106 post retirement benefits.

3 **Background**

4 **Q. Please place in perspective the labor costs the Company is seeking to recover**  
5 **in this case?**

6 A. Overall the Company is seeking approximately \$539 million in labor expenses,  
7 including base pay, incentive compensation, pension and benefits costs. As  
8 discussed in my direct testimony, this amount is less than one percent higher than  
9 the approximately \$534 million in labor expenses that were included in the  
10 Company' s last rate case filing - UE 179 - which had a test period of 2007.  
11 Moreover, when compared with the Company' s actual labor costs incurred in  
12 2006 of \$533 million, the request in this case represents an increase of less than 1  
13 percent over four years. On a dollar-per-megawatt hour basis, the request in this  
14 case represents a 3 percent decrease since 2007. Thus, even in the face of  
15 increasing loads, rising medical costs and negotiated wage increases, the  
16 Company is holding the line on labor costs.

17 **Q. How has the Company managed to contain labor costs in the current**  
18 **environment?**

19 A. The Company' s success is due primarily to the emphasis on cost control brought  
20 by MidAmerican Energy Holdings Company (“ MEHC” ). Consistent with this  
21 new emphasis, the Company has implemented a workforce restructuring program  
22 that has allowed a reduction in staffing in key areas without compromising the  
23 critical goals of safety, reliability and customer service. In addition, the Company

1 has continued to re-design health, welfare, and retirement plans to shift more  
2 responsibility from the Company to employees. Thus, despite the fact that Staff  
3 and ICNU-CUB recommend numerous specific adjustments to the filing, the  
4 Commission should not lose sight of the fact that the Company' s labor costs  
5 reflect substantial cost reductions.

6 **Q. Has the Company implemented other changes due to MEHC ownership that**  
7 **are relevant to your testimony?**

8 A. Yes. In addition to efficiency, MEHC places a heavy emphasis on safety, system  
9 reliability and customer service. For this reason, the incentive and merit pay  
10 programs are more focused than ever on the successful attainment of these goals.

11 **Q. Can you provide examples showing the Company' s commitment to attaining**  
12 **goals in these areas?**

13 A. Yes. The following achievements are evidence of the Company' s commitment to  
14 safety, system reliability and customer service:

- 15 • Pacific Power is continuing to improve in virtually all customer service and  
16 customer satisfaction metrics, as demonstrated by the J.D. Power and TQS  
17 Research customer service surveys. Most recently, Pacific Power was ranked  
18 number one in overall customer satisfaction among large industrial customers  
19 in a TQS Research survey. The Company is also on target to meet goals for  
20 improvement in customer guarantee failures, billing accuracy, and  
21 Commission complaints.
- 22 • Pacific Power is on target to meet its goals for improving safety performance  
23 by meeting improvement goals in the majority of its key safety metrics,

1 including recordable incident and accident rates, lost time incidents, and  
2 restricted duty incidents.

3 • Pacific Power has seen improvements in service quality measures, including  
4 Average Interruption Duration and Average Interruption Frequency.

5 **Q. What conclusions do you draw from these improvements relevant to your**  
6 **testimony?**

7 A. I conclude that the Company' s compensation and benefits policies are working.  
8 In particular, the compensation and benefit packages are competitive enough to  
9 attract and retain the workforce needed to support customers. Further, the  
10 Company' s incentive pay programs motivate employees to perform at an  
11 excellent level to meet the Company' s goals of safety, reliability and customer  
12 service, all to the benefit of customers and the Company.

13 **Proposed Adjustments To Annual Incentive Plan Expense**

14 **Q. Please describe the Company' s Annual Incentive Plan as it is currently**  
15 **structured.**

16 A. In order to attract, motivate, develop and retain a highly qualified workforce, the  
17 Company' s philosophy is to provide total remuneration which, when employees'  
18 performance is at desired levels, is equal to the average remuneration provided by  
19 the Company' s competitors for labor. In other words, the Company' s goal is to  
20 set target wages and benefits at the market average.

21 The intent of the Company' s Annual Incentive Program is to put some of  
22 the competitive total remuneration “ at risk.” The portion of pay “ at risk” is the  
23 guideline (or target) incentive percentage assigned to a particular job. In



1 exceptional performance years, the incentive payment for a specific employee  
2 may be more than target and in low performance years may be below target, but  
3 on average, the incentive is generally at the guideline level. If the individual fails  
4 to earn the full guideline incentive, that individual will be paid less than the  
5 competitive total cash compensation in the marketplace for that year.

6 **Q. On the whole, when considered over all eligible employees, does the**  
7 **Company ever pay out an amount in incentive pay that exceeds target?**

8 A. No. While some employees will earn above target, others will earn below, and on  
9 the whole, the Company pays out no more than target compensation.

10 **Staff Adjustment**

11 **Q. Please describe Staff witness Ms. Gorsuch' s proposed adjustments to**  
12 **PacifiCorp' s Annual Incentive Plan expense.**

13 A. Ms. Gorsuch proposes that the Commission disallow 100 percent of officer  
14 bonuses and 50 percent of what she refers to as “ merit-based bonuses.” These  
15 proposals result in Staff’ s proposed reductions to test period incentive expense of  
16 \$3.5 million to operations and maintenance (“ O& M” ) and \$1.4 million to rate  
17 base, on an Oregon-allocated basis.

18 **Q. What reasons does Ms. Gorsuch offer for her recommendation?**

19 A. Ms. Gorsuch states that her proposals are based on Commission policies which  
20 she suggests are to automatically disallow: (1) 100 percent of officers’ bonuses  
21 and incentives because they are “ typically based solely on increased earnings” ;  
22 (2) 75 percent of performance based incentives because they are “ generally

1 focused on increased earnings” ; and (3) 50 percent of merit-based bonuses  
2 because they “ equally benefit shareholders and ratepayers.”

3 **Q. Do you agree with Ms. Gorsuch’ s proposed adjustment to incentive pay**  
4 **expense?**

5 A. No. First, from an overall standpoint, reducing incentive expense will result in  
6 employees being underpaid. As I explained in my direct testimony, incentive pay  
7 is not “ extra pay.” Rather, incentive pay is an integral portion of a competitive  
8 level of pay. As such, it constitutes a reasonable expense that is necessary to the  
9 successful operations of the Company. Any reduction below the competitive  
10 target incentive level would place the Company in a position of not being able to  
11 offer competitive pay levels and placing operational and customer objectives at  
12 risk. Second, I believe it would be inappropriate for the Commission to disallow a  
13 portion of a competitive level of pay simply because it is in the form of an  
14 incentive payment. PacifiCorp has adopted an incentive program with a “ pay at  
15 risk” component based on the Company’ s belief that such a policy is the best  
16 approach for encouraging higher employee performance. If the Commission  
17 routinely and automatically disallows a portion of market compensation simply  
18 because it is incentive pay, it will effectively be encouraging the Company to drop  
19 its “ pay at risk” policy in favor of a system of flat salaries that are paid to  
20 employees regardless of performance. If this were to occur, customers would lose  
21 what I believe are substantial benefits from the Company’ s current program.

1 **Q. Do you agree that the Commission should disallow incentive payments that**  
2 **benefit shareholders?**

3 A. No. In fact, a singular focus on whether a payment benefits shareholders misses  
4 the mark. Instead, the focus should be on whether an incentive program is  
5 designed to benefit customers.

6 **Q. Please explain.**

7 A. At the outset, I do not agree that it is the Commission' s policy to automatically  
8 disallow incentive payments that benefit both shareholders and customers.  
9 Instead, I believe that what the Commission has traditionally attempted to do is to  
10 disallow incentive payments - or portions of incentive payments - to the extent  
11 that they reward goals that are designed to benefit *only* shareholders.

12 Moreover, the framework proposed by Ms. Gorsuch is predicated on a  
13 mistaken belief that shareholder and customer benefits are always in conflict. In  
14 fact, the Company' s employee policies are based on the belief that the opposite is  
15 true. That is, PacifiCorp is most successfully operated when customer and  
16 shareholder goals are in alignment, and goals that contribute to the successful  
17 operations of the Company benefit shareholders and customers alike. There is no  
18 reason to disallow incentive payments that reward such goals.

19 **Q. Do you agree that rewards tied to all financial goals are unrecoverable?**

20 A. No. While goals tied to profits benefit shareholders, goals that encourage  
21 efficiency and cost-containment benefit customers as well. For this reason a  
22 payment tied to cost-containment goals should not be disallowed.

1 **Q. Has the Company structured the Annual Incentive Plan with these principles**  
2 **in mind?**

3 A. Yes. The Company has taken care to ensure that all goals selected for incentive  
4 payments relate to the delivery of safe, reliable and efficient electric service to  
5 customers.

6 **Q. Can you provide more detail on employee goals?**

7 A. As I explained in my direct testimony, all employees have individual and group  
8 goals. The group goals describe characteristics that the Company believes are  
9 important to the success of all employees, such as customer focus, job knowledge,  
10 planning and decision making. The individual goals are tailored for each  
11 employee to describe how that employee can further the Company' s priorities in  
12 six key areas: Safety and Employee Commitment, Operational Excellence,  
13 Customer Service, Financial Strength, Regulatory Integrity and Environmental  
14 Respect.

15 **Q. Do the financial goals relate to corporate profits?**

16 A. No. The financial goals are tied to cost containment measures such as reducing  
17 overtime, and developing and meeting budgets.

18 **Q. Have you provided samples of individual goal sheets for several employees?**

19 A. Yes. Attached is Exhibit PPL/805, which contains copies of 2009 individual  
20 objectives for three actual employees classified from analyst to manager level.  
21 The group includes a Dispatch Supervisor, Distribution Manager, and a Business  
22 Analyst. (The names have been redacted to protect employee privacy.) As you  
23 can see, each employee has between one and five key objectives that serve as

1 goals for the year. Each objective is described in detail. Next, each objective is  
2 assigned a set of concrete goals by which they will be measured and a weighting  
3 for that particular objective. All of the employees' goals focus on objective  
4 outcomes that are closely tied to safety, efficiency, reliability and customer  
5 service. None of them are tied to the Company' s financial performance.  
6 Moreover, each goal sheet reflects the significant attention and effort that goes  
7 into tailoring these for each employee.

8 **Q. Ms. Gorsuch states that incentive payments to Company officers should be**  
9 **disallowed because they are generally connected to financial goals. What is**  
10 **your response?**

11 A. It is true that corporate officers are responsible for the financial health of the  
12 utility. For that reason their performance goals may, unlike the goals for other  
13 employees, include ensuring adequate revenues in addition to cost containment.  
14 However, both of these types of goals benefit customers by ensuring that the  
15 Company is financially healthy to allow it to make the investments necessary to  
16 serve customers. There is therefore no reason to automatically disallow Annual  
17 Incentive Plan payments to officers.

18 **Q. Does the Company offer any incentive pay programs that are tied solely to**  
19 **corporate earnings?**

20 A. Yes. The Company offers a long-term incentive program to select senior  
21 management employees. This plan is based on MEHC net income improvement  
22 and is vested over a five-year cycle. The Company is not requesting recovery of  
23 any costs associated with this program.

1 **Q. Has the Company made changes to the Annual Incentive Plan in response to**  
2 **Commission feedback?**

3 A. Yes. In 2006, the Company adjusted its Annual Incentive Plan in response to  
4 feedback from the Commission. Prior to that time, the Company sought recovery  
5 of all awards made to employees under the plan, whether or not those awards  
6 resulted in total employee compensation that was above a target (competitive  
7 market) level. In response to the Commission' s previous decisions on recovery of  
8 employee compensation, including incentives, the Company now seeks to recover  
9 only that portion of incentive payments that result in compensation at the target  
10 level.

11 **ICNU-CUB Adjustment**

12 **Q. Please describe the ICNU-CUB witness Ms. Blumenthal' s proposed**  
13 **adjustment to the Annual Incentive Plan.**

14 A. Ms. Blumenthal proposes reducing the incentive level in the filing by  
15 approximately \$12.3 million on a total-company basis and \$3.6 million on an  
16 Oregon-allocated basis.

17 **Q. What reasons does Ms. Blumenthal give for her adjustment?**

18 A. Ms. Blumenthal reasons as follows: The employees work for the Company,  
19 which has two stakeholders - customers and shareholders. When the Company  
20 operates efficiently both groups benefit. Therefore both groups should share the  
21 costs of the incentive plan.

22 **Q. Do you agree?**

23 A. No, as I stated above, if the incentive pay is a component of market

1 compensation, and if the goals of the plan are designed to benefit customers, then  
2 the Company should be allowed to recover the cost of the plan. Whether or not  
3 shareholders also benefit should not be the issue.

4 **Q. Does Ms. Blumenthal offer any criticism of the Annual Incentive Plan?**

5 A. Yes. Ms. Blumenthal argues that the Company has offered no evidence that the  
6 Annual Incentive Plan is effective at producing higher than average performance.  
7 Moreover, Ms. Blumenthal even suggests that the plan might be  
8 counterproductive, arguing that studies show that “ many employees actually  
9 perform worse when there is a promise of a large bonus if certain goals are  
10 reached . . . .” ICNU-CUB/400, Blumenthal/9.

11 **Q. What do you make of Ms. Blumenthal’ s concern?**

12 A. I do not share Ms. Blumenthal’ s concern, in particular as it relates to PacifiCorp’ s  
13 Annual Incentive Plan. I am aware that there are differences of opinion as to what  
14 type of incentive plans are most effective in encouraging employee performance.  
15 For instance, the study cited by Ms. Blumenthal suggests that too large of an  
16 incentive might distract an employee from performance. However, human  
17 resource experts are overwhelmingly of the opinion that a well-crafted incentive  
18 plan with a pay-at-risk element will produce superior performance. In my  
19 opinion, the Annual Incentive Plan is just such a program.

1 **Staff' s Proposed Adjustment To Medical Health Care Benefits**

2 **Q. Please describe Staff witness Mr. Ball' s proposed adjustment to PacifiCorp' s**  
3 **health care expense.**

4 A. Mr. Ball proposes two changes to the Company' s health care expense, resulting in  
5 a single adjustment. First, Mr. Ball proposes adjusting the health care benefits  
6 expense to reflect a 6.5 percent increase over 2009 budget as opposed to the 8.0  
7 percent proposed by the Company. Second, Mr. Ball proposes his own method to  
8 reflect employee/employer sharing of costs premium costs. Taken together, these  
9 proposals result in Mr. Ball' s recommendation for a reduction to operating  
10 expenses of \$3.6 million on a total-system basis, and \$1.0 on an Oregon-allocated  
11 basis.

12 **Q. What reasons does Mr. Ball give for his proposal to use a 6.5 percent**  
13 **escalation factor instead of an 8 percent escalation factor?**

14 A. Mr. Ball bases this proposal on a news release issued by Hewitt Associates  
15 (“ Hewitt” ) dated September 22, 2008, in which Hewitt projects a 6.4 percent  
16 increase in health care costs for employers in 2009.

17 **Q. Do you agree that it is reasonable to apply this Hewitt projection to**  
18 **PacifiCorp' s health costs for 2010?**

19 A. No, for two reasons. First, the September 2008 Hewitt projection relied on by  
20 Staff appears to be based on a generic overview of medical costs for all industries  
21 in all geographic areas. It should be noted that the release specifically notes that  
22 there is significant regional variation in health care costs. On the other hand, the  
23 escalation factor used by the Company was developed by Hewitt specifically for



1 PacifiCorp, based on information that is specifically tailored for and drawn from  
2 the Company' s experience and plan design. In particular, during each year, the  
3 Company provides Hewitt with demographic information about the Company' s  
4 employees, claims experience and market conditions. Hewitt takes all of this  
5 information and, in combination with its own data, forecasts the Company' s  
6 expected expense. This process results in a significantly more accurate forecast.

7 Second, the projection cited by Mr. Ball is nearly a year old at this point  
8 and was intended to predict costs for 2009, not 2010, the test period in this case.

9 **Q. How does Mr. Ball' s calculation of the employer/employee sharing**  
10 **percentages differ from the Company' s?**

11 A. The sharing percentages included in the Company' s calculations are based on  
12 advice from Hewitt, considering all of the known information as the actual  
13 percentages applicable to each category of employee. The aggregate sharing  
14 proportion calculated by Hewitt is approximately 82/18. Mr. Ball attempted to  
15 perform a calculation similar to Hewitt, but using incomplete, and in one case,  
16 erroneous information. Specifically, Mr. Ball relied on the projected sharing  
17 information for each employee grouping contained in the Company' s response to  
18 Staff' s data request 86. That response states that the goal sharing for non-union  
19 employees is 80/20. However, after factoring in variances from that goal for the  
20 various types of programs available to those employees (such as high vs. low  
21 deductibles) Hewitt projects an effective sharing proportion of 82/18. Moreover,  
22 in performing his calculations, as shown on Staff/202, Ball/3, Mr. Ball has used  
23 the wrong percentage for the employer portion of health care costs for the UWUA

1 127 and 197 employee groups. Specifically, Mr. Ball shows a sharing percentage  
2 for those groups as 80/20 instead of the correct proportion, 87/13, which is  
3 correctly shown in data request 86.

4 **Staff' s Proposed Adjustment To 401(K) Expense**

5 **Q. Please describe Mr. Ball' s proposed adjustment to the Company' s 401(K)**  
6 **expense.**

7 A. At the time PacifiCorp prepared this case it did not have data for its 2009 401(K)  
8 expense. For that reason, the Company estimated this expense for 2010 by taking  
9 the 2008 budgeted expense and then applying an annual escalation factor of 4.7  
10 percent to reach a 2010 forecast. Mr. Ball requested and received actual data for  
11 the Company' s 401(K) expense for the first quarter of 2009 and used this  
12 information as his starting point. Mr. Ball annualized this data and escalated the  
13 result to 2010 using a 2.5 factor. Mr. Ball' s method results in his  
14 recommendation that 401(K) expense be reduced by \$9.2 million on a total-  
15 system basis, and \$2.6 million on an Oregon-allocated basis.

16 **Q. Do you agree with Mr. Ball' s proposed adjustment?**

17 A. Yes, although the Company does not necessarily agree with the method Mr. Ball  
18 used, the overall result is reasonable.

19 **ICNU-CUB' s Proposed Adjustment To 401(K) Expense**

20 **Q. Please describe Ms. Blumenthall' s proposed adjustment to 401(K) expense?**

21 A. Ms. Blumenthall adopts a correction identified in discovery to the Company' s  
22 enhanced 401(K) costs.

1 **Q. Do you agree with this proposed adjustment?**

2 A. Yes; however, Mr. Ball also incorporates this correction in his adjustment to  
3 401(K). Since the Company has adopted Mr. Ball' s proposed adjustment, no  
4 further adjustment is necessary to reflect this correction.

5 **Staff' s Proposed Pension Administration Expense Adjustment**

6 **Q. What does Mr. Ball propose with respect to the Company' s pension**  
7 **administration expense?**

8 A. Mr. Ball proposes a reduction in pension administration expense of \$211,698 on a  
9 total-Company basis, or \$59,820 on an Oregon-allocated basis. Mr. Ball states  
10 that the Company' s actual pension administration expense for 2007 was \$926,312  
11 and for 2008 was \$339,567. Mr. Ball states that due to the varying nature of the  
12 expense, Staff proposes to include the pension expense amount included in the  
13 base period, adjusted for inflation - \$666,759. He claims that Staff' s adjustment  
14 is close to the simple average of the actual 2007 and 2008 expense of \$632,440.

15 **Q. Do you agree with Staff' s proposed adjustment?**

16 A. No. The Company incurred an unusually low level of pension administration  
17 expense in 2008 that is not representative of what the Company can expect to  
18 incur in the future. In 2008, the Company did not incur costs related to certain  
19 union negotiations because the parties settled early or deferred negotiations. The  
20 events in 2008 were unusual and cannot be expected to occur in the test period.  
21 Therefore, it is unreasonable to use 2008 as half of the calculation of pension  
22 administration expense as Staff has.

1 **Q. What is your position on the methodology Staff has proposed for calculating**  
2 **the adjustment to the pension administration expense?**

3 A. The Commission should reject Staff' s proposed methodology. It is not clear why  
4 Staff has chosen to use the base period expense for this adjustment, while using  
5 actual annualized 2009 results to calculate the adjustment to the 401(K) expense.  
6 If Staff applied that same methodology to pension expense, the expense would  
7 actually *increase* by \$132,495 on an Oregon basis. There is no reason for Staff to  
8 annualize actual 2009 results for one expense while using a different methodology  
9 to adjust a similar expense.

10 **Q. How do you propose the Commission resolve this issue?**

11 A. I propose that the Commission reject Staff' s proposed adjustment on the basis that  
12 consistent methodologies should be utilized for similar adjustments.

13 **Staff' s Worker' s Compensation Insurance Adjustment**

14 **Q. Please describe Mr. Ball' s proposed adjustment to worker' s compensation**  
15 **insurance costs.**

16 A. Mr. Ball proposed that the Company' s proposal for worker' s compensation  
17 insurance costs be reduced by \$1.8 million on a total-system basis, and \$0.5  
18 million on an Oregon-allocated basis.

19 **Q. What reason does Mr. Ball give for this adjustment?**

20 A. Mr. Ball' s proposal is based on the Company' s 2008 worker' s compensation  
21 insurance budget, escalated for 2010. Mr. Ball used the Company' s 2008 actual  
22 expense, and escalated this number instead.

1 **Q. Do you agree with Mr. Ball' s adjustment?**

2 A. Yes. Since the time the Company filed the case, the Company not only has the  
3 actual 2008 expense numbers as a point of reference, but has been able to  
4 renegotiate the rates based on those numbers. The resulting worker' s  
5 compensation expense budget for 2009 shows Mr. Ball' s adjustments to be  
6 reasonable.

7 **Q. Does this conclude your testimony?**

8 A. Yes.



Docket No. UE-210  
Exhibit PPL/805  
Witness: Erich D. Wilson

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of Erich D. Wilson**

**Examples of Employee Goals**

**August 2009**

#1

## 2009 Performance Management

**Review Period:** 01/01/2009 to 12/31/2009

General Information		
<b>Employee Information</b>		
Last Name	First Name	Middle
<b>Supervisor, Dispatch</b>	<b>00001027</b>	
Title	..	..
<b>Manager Information</b>		
Name	Title	

Section I - Objectives	
<b>Weighting of Objectives: 70%</b>	
<p><b><i>Keeping in mind that your goals should be a component of your department or business unit's goals, list in order of importance the main duties, tasks, projects or goals for the appraisal period. As in the past, each employee is required to have a safety goal.</i></b></p>	
<b>Section I - Objectives: 1 of 5</b>	
Objective Name	Weight 10%
Safety and Employee Commitment Goals	
Description	
<p>To ensure that Pacific Power T&amp;D Operations' employees understand that safety is our number one priority, our goal is to increase safety awareness and compliance at all levels within Transmission and Distribution (T&amp;D) Operations. This requires T&amp;D Operations to develop a true "Safety Culture", implement an accident free work environment philosophy, and actively support and deliver the MidAmerican/Pacific Power Health and Safety</p>	



Improvement Plan for T&D Operations.

**Measurement**

The deliverables for T&D Dispatch to achieve this are as follows:

- Meet or exceed Pacific Power lost time accident rate target
- Meet or exceed Pacific Power recordable incident rate
- Meet or exceed Pacific Power preventable vehicle accident rate
- Maintain 85% of department first aid and CPR trained
- Deliver MidAmerican Energy Holding Company Safety Improvement Plan
- Deliver safety training to all T&D Dispatch employees as outlined by the Health & Safety Department

**Section I - Objectives: 2 of 5**

Objective Name

Weight 20%

Operational Excellence

**Description**

T&D Operations' goal is to ensure that high standards are met for our operations and system performance.

T&D has implemented initiatives to ensure that our operations operate as centers of excellence. To demonstrate this, T&D commits to improving service quality by achieving targeted metrics in states we serve.

**Measurement**

The deliverables for T&D Dispatch to achieve this are as follows:

- Deliver Grid Operations and Dispatch transmission switching orders with no more than 3 switching errors. (Dispatch & Grid control errors in total)
- Deliver Dispatch distribution switching orders with no more than 6 switching errors. (PCC & SCC control errors in total)
- Training delivered to dispatchers per schedule
- Achieve the system annual average interruption frequency index (SAIFI) per customer in Rocky Mountain Power
- Achieve the system annual average interruption

duration index (SAIDI) per customer in Rocky Mountain Power

- Achieve the annual customer average interruption duration index (CAIDI) per occurrence in Rocky Mountain Power

- Achieve a system annual average interruption frequency index (SAIFI) per customer of 1.32 in Pacific Power

- Achieve a system annual average interruption duration index (SAIDI) per customer of 149 minutes in Pacific Power

- Achieve an annual customer average interruption duration index (CAIDI) per occurrence of 111 minutes in Pacific Power

### Section I - Objectives: 3 of 5

Objective Name

Weight 20%

Customer Service

#### Description

T&D Operations' goal for customer service is to continue focusing on delivering reliability, dependability, and exceptional services to our customers. This has required T&D Operations to develop and execute plans to improve stakeholder satisfaction, customer service levels and customer perceptions.

#### Measurement

The deliverables for T&D Dispatch to achieve this are as follows:

- No more than 230 commission complaints in Pacific Power
- No more than 266 commission complaints in Rocky Mountain Power
- No more than 188 customer guarantee failures in Pacific Power
- No more than 217 customer guarantee failures in Rocky Mountain Power
- Restore 85% of customers off supply within 3 hours in Pacific Power
- Restore 85% of customers off supply within 3 hours in Rocky Mountain Power
- Maintain Call to Assign time of 40 minutes for PacifiCorp
- Improve Pacific Power residential customer satisfaction to first quartile ranking in Western Region as measured by J.D. Power survey

- Improve Pacific Power small and medium size business satisfaction to second quartile ranking in Western Region as measured by J.D. Power survey
- Improve Pacific Power large industrial customer satisfaction to number 1 as measured by TQS Research Inc survey
- Maintain Rocky Mountain Power residential customer third quartile satisfaction ranking in Western Region as measured by J.D. Power survey
- Maintain Rocky Mountain Power small and medium size business third quartile satisfaction ranking in Western Region as measured by J.D. Power survey

### Section I - Objectives: 4 of 5

Objective Name

Weight 5%

Financial

Description

Pacific Power T&D Operations' financial goal is to retain the financial integrity of MidAmerican by achieving its financial targets. Efficiency initiatives have been put in place to ensure that T&D Operations is maximizing the MidAmerican investment.

Measurement

The deliverables for T&D Dispatch to achieve this are as follows:

- Achieve Pacific Power OMAG budget

The deliverables for T&D Dispatch to achieve this are as follows:

- Reduce dispatch 2009 overtime hours 5% from the dispatch overtime hours for 2008

### Section I - Objectives: 5 of 5

Objective Name

Weight 15%

Regulatory Integrity/Compliance

Description

Pacific Power T&D Operations' regulatory goal is to ensure that we maintain our regulatory integrity. This requires T&D Operations to implement MEHC commitments and meet state mandates.

#### Measurement

The deliverables for T&D dispatch to achieve this are as follows:

- Compliant with WECC/NERC reliability standards
- Conduct an annual evacuation drill of PCC and apply our business continuity plan for short term denial of access
- Conduct an annual evacuation drill of SCC and apply our business continuity plan for short term denial of access
- Provide annual refresher training to sub transmission dispatchers on the manual load shed plan (Review the plan, identify overlap of all load shed programs)
- Provide annual refresher training to sub transmission dispatchers on Load Shed/Restore (LSR) functionality in Ranger to manually shed load
- Annually review the manual load shed plan data and make any required additions/edits (Add new circuits, review critical circuits, etc)
- Provide annual refresher training for state commission outage notifications with outage coordinators

## #2

### 2009 Performance Management

**Review Period:** 01/01/2009 to 12/31/2009

#### General Information

#### Employee Information

Last Name

First Name

Middle

<b>Mgr, Distribution</b>	<b>00001027</b>
Title	.. ..
<b>Manager Information</b>	
Name	Title

Section I - Objectives	
<b>Weighting of Objectives: 70%</b>	
<p><b><i>Keeping in mind that your goals should be a component of your department or business unit's goals, list in order of importance the main duties, tasks, projects or goals for the appraisal period. As in the past, each employee is required to have a safety goal.</i></b></p>	
Section I - Objectives: 1 of 6	
Objective Name	Weight 20%
Safety and Employee Commitment	
Description	
<p>Target Zero - Goal of Zero safety-related incidents is to ensure all employees go home in the same or better condition that when they came to work. Safety performance will be measured on continuous improvement over the previous year:</p>	
Measurement	
<ul style="list-style-type: none"> <li>• Meet or exceed the PP overall recordable incident rate of &lt; 2.00 broken down into "At-Fault" recordable incident rate of &lt; 0.90 and "Wear and Tear" recordable incident rate of &lt; 1.10.</li> <li>• Reduce preventable vehicle accidents to &lt; 30 at the T&amp;D Operations level.</li> <li>• Implement the Pacific Power Safety Improvement Plan in all districts.</li> <li>• Deliver safety training to all T&amp;D Operations district employees as outlined by the Health &amp; Safety Department.</li> <li>• Develop the 2008 compliance calendar and perform the scheduled actions.</li> </ul>	

## Section I - Objectives: 2 of 6

Objective Name

Weight 10%

Environmental Respect:

### Description

Ensure that PacifiCorp is meeting environmental regulations and RESPECT policy commitments/obligations to our customers, regulators, and other key stakeholders. This requires implementation of the Pacific Power environmental plan and required actions to reduce risk associated with non-compliance and to manage and/or eliminate any environmental damage.

### Measurement

- Deliver bird power line programs, completing >95% of corrective actions within the identified time frames.
- Report all eagle mortalities to environmental services within 48 hours, and remediate poles within 30 days.
- Correct all facilities within 90 days where protected birds have been killed.
- Correct all potential non-compliance items identified in the quarterly facility compliance checklists, completing them within 90 days of identification.
- Correct all deficiencies found by environmental audits within 30 days.
- Reduce preventable incidents and commensurate quantity (gallons) of oil spilled to 17 spills and 192 gallons
- Ensure 100% of required training is completed on an annual basis
- Implement the SF6 reduction plan as outlined in the MEHC transaction commitments, achieving the annual 5% reduction goal.
- Leaking/weeping transformers are considered A priority conditions and will be removed from service and replaced within 30 days of identification.
- If during the course of maintenance or construction we discover a distribution pole or pad-mounted transformer that is not manufacture-certified as non-PCB by nameplate information or a certified lab test, the unit will be removed from service within 30 days and replaced with a non-PCB unit. If during the course of an inspection activity we discover a distribution pole or pad-mounted transformer that is not manufacture-certified as non-PCB by nameplate information or a certified lab test, the unit will be noted in FPI as a D condition and

will be replaced during a future maintenance or construction activity.

## Section I - Objectives: 3 of 6

Objective Name

Weight 15%

Operational Excellence

### Description

Ensure that high standards are met for our operations and system maintenance. Improve Pacific Power service quality by achieving targeted metrics in the states we serve (Oregon, Washington and California). Achieve the network investment plans set forth by Asset Management for capital, maintenance and vegetation management, and deliver within agreed budget.

### Measurement

- Reduce annual system error-caused outages as follows:
  - Contact caused by Pacific Power employees: <7
  - Switching errors in the field: <1
  - Testing/startup/faulty installation/incorrect record: <60
  - Improper protecting relay settings coordination: <8
  - Support work planning initiatives:
    - For districts that have had the new work planning processes rolled-out in their area.
    - ♣ All estimators are scheduling their week in Optic
    - ♣ All customer appointments are in Optic
    - ♣ All crew scheduling is in Optic
    - ♣ All servicemen scheduling is in Optic
    - ♣ Planning meetings are held weekly
    - For districts that have not had the new work planning processes rolled-out in their area.
    - ♣ RUT is reviewed and updated at least once a month
    - ♣ Maintenance end-of-year forecast to work plan is updated monthly
    - ♣ Planning meetings are held weekly with minutes posted to server.
    - Deliver >97% of the maintenance plan.
    - Correct all "A" conditions within 30 days for Pacific Power areas.
    - Deliver >90% of project-managed projects by year-end.
    - Deliver reliability projects on schedule and

within budget by the end of the year. Complete all feeder hardening projects in Oregon, Washington and California as established by Asset Management (Fuse It or Lose It, Saving SAIDI, and feeder capital improvements) for those projects delivered by Asset by the end of quarter one 2008.

### Section I - Objectives: 4 of 6

Objective Name

Weight 10%

Customer Service

#### Description

Focus on delivering reliable, dependable, and exceptional service to our customers.

#### Measurement

- Receive less than 51 commission complaints:
- Receive less than 77 customer guarantee failures.
- Restore 85% of customers off supply within 3.0 hours.
- Send out targeted customer communications explaining vegetation management, Saving SAIDI, and Fuse-It-or-Lose-It projects

### Section I - Objectives: 5 of 6

Objective Name

Weight 10%

Financial

#### Description

Retain the financial integrity of MidAmerican by achieving financial targets and implementing efficiency initiatives.

#### Measurement

- Achieve OMAG budget of \$117 million
- Deliver maintenance plan with 1% (or greater)



efficiencies.

- Maintain planned overtime hours to <10% of straight time hours.

### Section I - Objectives: 6 of 6

Objective Name

Weight 5%

Regulatory Integrity

Description

Maintain PP's regulatory integrity by implementing MEHC commitments and meeting state mandates.

Measurement

- Comply with GO165 and Oregon AFOR
- Comply with all NERC/FERC/WECC reliability standards, timeframes, and company programs.
- Complete all annual compliance-related training as outlined in NERC/FERC/WECC standards.

**#3**

## 2009 Performance Management

**Review Period:** 01/01/2009 to 12/31/2009

### General Information

#### Employee Information

Last Name

First Name

Middle

**Analyst, Business - Car**

**00001027**

Title

..

..

#### Manager Information

Name	Title
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**Section I - Objectives**

**Weighting of Objectives: 70%**

***Keeping in mind that your goals should be a component of your department or business unit's goals, list in order of importance the main duties, tasks, projects or goals for the appraisal period. As in the past, each employee is required to have a safety goal.***

**Section I - Objectives: 1 of 4**

Objective Name

Weight 5%

Health and Safety

Description

- a. Integrate health and safety as a value in how all work is conducted by constantly striving to create a workplace that is healthy and safe for ourselves and those around us.
- b. Ensure that healthy & safe work practices are never compromised, even in crisis situations.
- c. Set a personal example by consistently demonstrating healthy & safe personal behaviors.
- d. Identify, report, and evaluate health and safety risks and ensure that controls are implemented to eliminate or minimize health and safety risks.
- e. Actively contribute to a healthy and safe work environment by involvement in the team efforts in these areas and encourage others to get involved.
- f. Create and sustain a healthy and safe work environment by integrating health and safety in how all work is performed.

Measurement

Measurement:

- 1. Attend 4 safety meetings, including required meetings.
- 2. Identify and report any health and safety risks observed in the workplace.

3. Integrate health and safety behaviors in all work performed.

### Section I - Objectives: 2 of 4

Objective Name

Weight 30%

Performance Reporting and Variance Analysis for Transmission and EAM

#### Description

- a. Provide accurate & timely performance reports and variance commentary for Transmission and EAM to management.
- b. Distribute monthly OMAG and Transmission revenue reports to management via email in the required timeframe, including variance analysis and comments.
- c. Periodically assess Transmission and EAM reporting needs. As needed or required, develop and provide additional performance reports.
- d. Provide OMAG forecast updates as needed.
- e. Increase knowledge of capital reporting and forecasting.
- f. Provide bi-weekly NERC Compliance reports as required.

#### Measurement

1. Provide accurate & timely performance reports and variance commentary to KD Adair for the Pacific Power monthly close meeting. Attend meeting as backup when needed.
2. Provide reporting package via email within one day after closing for workforce and OMAG to Transmission and EAM management. Include revenue reporting for Transmission and analysis and commentary for material variances.
3. Provide ad-hoc information requests and reports in the required timeframe.
4. Develop and provide additional performance reports as needed or required.

5. Assist with development of Transmission profitability reporting.
6. Provide OMAG forecast updates in the required timeframe.
7. Learn basic components of capital reporting and forecasting, especially for the Transmission development plan.

### Section I - Objectives: 3 of 4

**Objective Name**

**Weight 25%**

Annual OMAG and Workforce Budgets for Transmission and EAM

**Description**

- a. Work with Finance groups, and Transmission and EAM management to prepare annual OMAG and workforce budgets.
- b. Calculate, analyze and update activity rates.
- c. Determine labor allocations by order for EAM and applicable Transmission Development cost centers.
- d. Assist with development of the 10 year OMAG and workforce plan, as needed.

**Measurement**

1. Prepare Transmission and EAM annual OMAG and workforce budgets with clear assumptions that achieve targets. Document budget assumptions, including support and management review.
2. Monitor and update workforce changes in SAP as needed throughout the year to provide accurate headcount, salaries and activity rates for each cost center. Updates include salary increases and position transfers.
3. Budget OMAG line items by order, by cost center, for EAM and applicable Transmission Development cost centers.
4. Calculate activity rates for the annual budget, including support and analysis. Finalize rates in December to include applicable workforce updates. Submit updated rates to Pacific Power Finance as actual rates

for the upcoming year.

5. Determine labor allocations by order for EAM and applicable Transmission Development cost centers, including billable hours and hours budgeted to capital surcharge and capital projects.

### **Section I - Objectives: 4 of 4**

**Objective Name**

**Weight 10%**

Transmission Revenue

**Description**

- a. Work with Pacific Power Finance, Transmission management, Ernie Knudsen and KD Adair to assist with preparation of annual and 10-year revenue budgets.
- b. Provide monthly revenue forecast updates to management as needed.
- c. Finalize annual budgeted revenue in SAP.
- d. Develop greater understanding of Transmission Revenue.

**Measurement**

- 1. Timely completion of annual and 10-year revenue budgets, on target.
- 2. Develop new monthly revenue forecast format to provide detail that will assist with tracking and forecasting variances.
- 3. Input annual budget in SAP, accurately and on-time.



Docket No. UE-210  
Exhibit PPL/1300  
Witness: Norman K. Ross

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Reply Testimony of Norman K. Ross**

**August 2009**

1 **Q. Please state your name, business address and present position with**  
2 **PacifiCorp d/b/a Pacific Power (the “ Company” ).**

3 A. My name is Norman K. Ross. My business address is PacifiCorp, 825 NE  
4 Multnomah, Suite 1900, Portland, Oregon 97232. I am a Director within the  
5 Company’ s corporate tax department. Prior to assuming my present duties in  
6 1998, I served from 1987 through 1998 within the corporate tax department of  
7 Pacific Telecom, Inc., a former PacifiCorp subsidiary.

8 **Q. Have you previously filed testimony in this case?**

9 A. No.

10 **Q. Please briefly describe your education and business experience.**

11 A. I received a Bachelor of Business Administration with a concentration in  
12 accounting from Seattle Pacific University in June 1980. I also received the  
13 Certified Public Accountant designation in 1984. I have been employed by  
14 PacifiCorp or its affiliates for the past 22 years. My business experience includes  
15 all areas of the corporate tax function.

16 **Q. Please describe your present duties.**

17 A. I am currently responsible for all activities related to the Company’ s property,  
18 sales, use, excise, gross receipt and miscellaneous tax obligations.

19 **Purpose and Summary**

20 **Q. What is the purpose of your testimony in this proceeding?**

21 A. The purpose of my testimony is to respond to Staff’ s proposed adjustments to the  
22 Company’ s property tax expense. Specifically, I demonstrate that the method  
23 used by Staff witness Mr. Dustin Ball to estimate property tax expense in the test



1 year is overly simplistic and fails to take into consideration a number of factors  
2 that affect property tax expense. I also provide a detailed overview of the method  
3 used by the Company to estimate property taxes, which takes into account  
4 important multi-state assumptions.

5 **Q. Please describe Staff' s proposed adjustment.**

6 A. Staff witnesses Mr. Ball and Ms. Deborah Garcia have both submitted testimony  
7 with respect to the Company' s 2010 property tax expense. Both witnesses  
8 recommend that the Company be allowed to recover \$87.5 million in property tax  
9 expense for calendar year 2010. The recommended \$87.5 million amount is \$8.3  
10 million or 8.6 percent lower than the Company' s \$95.8 million estimate of 2010  
11 property tax expense.

12 **Q. Do you agree with Staff' s estimate?**

13 A. No. Staff' s proposed adjustment is based upon a methodology that is far too  
14 simplistic and fails to recognize the factors that drive the Company' s property tax  
15 expense. The method employed by the Company, on the other hand, produces a  
16 far more accurate and realistic estimate given year over year increases in the level  
17 of property subject to assessment and operating earnings.

18 **Q. Please explain.**

19 A. The Company' s property tax estimation methodology, which the Company  
20 previously provided in the form of a detailed narrative description and calculation  
21 in Confidential Exhibit PPL/704 in this proceeding, gives specific consideration  
22 to all relevant and material factors that impact property tax expense. These  
23 factors include the following: state-by-state assessed values, the amount of tax to

1 be capitalized for projects under construction as of the January 1, 2010 lien date,  
2 the amount of property tax chargeable to fuel expense for mining related assets,  
3 state specific exemptions for intangible property, pollution control equipment, and  
4 other exempt assets, state specific assessment ratios, and state specific tax rates.

5 **Q. Please describe Staff' s proposed method for estimating property tax expense.**

6 A. Staff' s method relies upon the assumption that changes to property tax expense  
7 result only from changes in rate base. This inaccurate assumption leads Staff to  
8 estimate 2010 property tax expense in a manner that oversimplifies the process.

9 Although it is true that changes to the level of rate base may influence the values  
10 assigned to the Company' s taxable property, the influence is indirect at best.

11 **Q. Does Staff testify that rate base is the only element that drives changes in  
12 property tax expense?**

13 A. No. Mr. Ball states that rate base is the “ main driver” of the regulatory property  
14 tax expense. However, his method of calculating the Company' s property tax  
15 expense ignores these other drivers. Mr. Ball does not explain what those other  
16 drivers are, attempt to quantify them, or provide any evidence to support his claim  
17 that property tax expense is a function primarily of rate base.

18 **Q. Is calculating estimated property taxes using only rate base reliable?**

19 A. No. Rate base represents an incomplete and unreliable basis on which to estimate  
20 property tax expense. Rate base is not a valuation methodology in and of itself  
21 and thus its use as the sole basis for estimating the period to period change in the  
22 Company' s property tax expense is fatally flawed. The Company' s state-by-state  
23 methodology, which utilizes the specific factors used by states in assessing

1 property taxes, produces a more reliable estimate of 2010 property tax expense. It  
2 gives proper consideration to changes in the level of operating property, operating  
3 income, exemptions and other factors.

4 **Q. Staff’ s method suggests that year-to-year taxes are a linear function of rate**  
5 **base. Is this true?**

6 A. No. The specific method reflected on the worksheets contained within Staff/102  
7 and Staff/202 implicitly assumes that there is a linear or ratable relationship  
8 between rate base and property tax expense. No such relationship exists and Mr.  
9 Ball provides no evidence of such a relationship. Changes to property tax  
10 expense result from numerous factors other than changes in rate base.

11 **Q. What factors other than changes in rate base does Staff fail to consider?**

12 A. Staff fails to consider the following factors:

13 1. Staff’ s Method Ignores the Effect of Operating Income on Assessed Values.

14 Because Staff’ s proposed method relies solely on rate base, which contains the  
15 Company’ s net investment in operating property, the method ignores the effect  
16 that changes in operating income have on assessed values and therefore property  
17 tax expense. The level of operating earnings significantly affects the assessed  
18 values assigned to the Company’ s operating property. Staff’ s method gives no  
19 consideration to this important factor.

20 2. Staff’ s Method Ignores CWIP. The method fails to take into account changes  
21 in construction work in progress (“ CWIP” ) which, while not included within rate  
22 base, is nonetheless subject to property tax assessment.

23 3. Staff’ s Method Ignores the Issue of Exempt Property. Because rate base

1 contains both intangible and tangible property and certain intangible personal  
2 property is exempt from taxation in certain states, the method fails to consider  
3 whether changes in rate base result from changes to taxable (tangible) or exempt  
4 (intangible) property.

5 4. Staff's Method Ignores Timing Issues. The method fails to take into account  
6 the fact that property tax expense is a function of the assessed values assigned to  
7 property owed by the Company on January 1st of each calendar year. Rate base  
8 is, by contrast, a reflection of a simple beginning to end of year average or a 13-  
9 month average of plant balances.

10 5. Staff's Method Ignores Capitalization Activity. The method fails to take into  
11 account differences in the level of property taxes capitalized during the two-year  
12 period from which the 0.8157 percent rate is derived and the level of  
13 capitalization of property tax expected to occur during calendar year 2010.

14 **Q. Does the Company's method for estimating property tax expense take into**  
15 **consideration these additional factors?**

16 A. Yes. Each of the factors discussed above are specifically taken into account  
17 within the methodology employed by the Company when estimating property tax  
18 expense. For this reason, Staff's \$87.5 million estimate of property tax expense  
19 substantially understates the amount of property tax expense the Company will  
20 incur during 2010. On a normalized basis, the Company currently expects to  
21 incur approximately \$86.3 million in 2009 property tax expense. Hence, the  
22 proposed rate base dependent method would provide only a \$1.2 million year-  
23 over-year increase in property tax expense despite another year's (from January 1,

1 2009 to January 1, 2010) substantial increase in taxable operating property.

2 **Q. Mr. Ball indicates that his estimation method was “ approved by the**  
3 **Commission in Order No. 09-020.” Do you agree that this means the**  
4 **Commission should apply this method here?**

5 A. No. Order No. 09-020 in UE 197 was based upon a record unique to that  
6 proceeding and should not establish definitive Commission policy regarding  
7 property tax estimate methods. In UE 197, Portland General Electric (“ PGE” )  
8 originally argued that the property tax is a function of the rate base. Then, after  
9 Staff pointed out an error in PGE’ s calculations, PGE argued that property taxes  
10 are a function of assets and tax rates and should be calculated accordingly. Staff  
11 initially argued that taxes should be determined by escalating the 2007 taxes by  
12 the Consumer Price Index. Then Staff argued that property taxes are a function of  
13 plant-in-service, net of depreciation, and not a function of the overall rate base.

14 Finally, Staff accepted PGE’ s original method—even though it had been  
15 repudiated by PGE—and acknowledged “ that there is likely a more reasonable  
16 common ground, [but] for purposes of this case, Staff will concede to using  
17 PGE’ s method of basing the ratio on the actual average rate base rather than the  
18 gross plant net of depreciation.” Staff’ s Reply Brief at 4-5. In adopting its final  
19 position on this issue, Staff recognized (1) there is likely a more reasonable  
20 method and (2) the method adopted was unique to that case.

21 Although the Commission ultimately adopted Staff’ s approach, the  
22 Commission’ s endorsement of Staff’ s method amounted to recognizing it was  
23 better supported relative to PGE’ s revised method. Order No. 09-020 at 24.

1           Although the Commission adopted Staff' s method in that docket, the more  
2           comprehensive method used by PacifiCorp was not presented to the Commission  
3           in the PGE case.

4   **Q.   Is the practice employed when estimating PGE' s property tax expense**  
5           **reliable when estimating PacifiCorp' s property tax expense?**

6   A.   No. While the methodology used by the Commission in UE 197 may have  
7           produced a reasonable estimate of property tax expense for PGE, it will not do so  
8           here. PacifiCorp is a substantially more complex public utility from both a  
9           regulatory and property taxation point of view. Instead of being subject to a  
10          single state' s regulatory oversight, PacifiCorp is subject to regulatory oversight by  
11          six states. Instead of having property in two western states, PacifiCorp currently  
12          has taxable operating property in ten. PacifiCorp is, therefore, subject to  
13          variability in appraisal methodologies that affect the values assigned by the ten  
14          western states that annually value PacifiCorp' s operating property. Moreover,  
15          because PacifiCorp is in the midst of a sizeable capital investment plan, the use of  
16          a simplistic method that relies exclusively upon the relationship between rate base  
17          (which has no direct correlation to assessed value) and tax expense will not  
18          produce a reliable estimate of PacifiCorp' s property tax expense.

19   **Q.   Staff suggests that PacifiCorp has overstated its forecast property tax**  
20          **expenses in 2007 and 2008. Has the Company recently improved the**  
21          **methods it employs when estimating property tax expense?**

22   A.   Yes. Beginning with the estimate for 2008, the Company adopted a substantially  
23          more robust and granular estimation methodology that produces state specific

1 estimates of property tax expense based upon each state' s unique mixture of  
2 valuation approaches, financial assumptions, exemptions, assessment ratios, and  
3 tax rates. The improved methodology was adopted so as to give more specific  
4 consideration to the principal factors impacting property tax expense (the level of  
5 assessable property and the level of operating income) and the unique state  
6 specific tax policies and practices affecting the Company' s tax expense.  
7 Estimation methodologies used prior to 2008 relied primarily upon broad changes  
8 in Company-wide assessable property and net operating income. The change to a  
9 more granular state-by-state approach was prompted by the recognition that  
10 substantial increases in assessable property were affecting individual state tax  
11 burdens in unequal ways.

12 These changes to the Company' s forecasting methodology resulted in a  
13 significantly more accurate forecast for calendar year 2008. While no estimation  
14 technique will be 100 percent accurate, the Company' s detailed estimation  
15 methodology is substantially more reliable since it specifically considers the  
16 various factors actually relied upon by state assessment staff when determining  
17 the assessed values of the Company' s taxable operating property. Staff' s method,  
18 on the other hand, bears no relationship to how property taxes are actually  
19 assessed and has no track record of accurately predicting property tax expense.

20 **Q. Please provide a brief overview of the improved method used by the**  
21 **Company when estimating 2010 assessed values.**

22 A. The method begins with state specific valuation models created by the Company' s  
23 tax department. Each model consists of a series of appraisal worksheets that are

1 functionally identical to the specific cost, income and sales comparison methods  
2 routinely employed by each individual state. Beginning with a version of each  
3 state' s model that reflects the particular valuation methods each state employed  
4 when determining the assessed values for the most recent year, the Company is  
5 then able to increase or decrease key property and income amounts within those  
6 models and thereby produce an estimate of assessed value for the next tax year.

7 Once adjustments for anticipated changes in key property and income data  
8 are made, the Company makes adjustments for known or anticipated changes in  
9 the level of exempt property, assessment ratios or other factors expected to impact  
10 the next year' s valuation. The objective is to produce an estimate of assessed  
11 value based upon anticipated changes to all material valuation data.

12 The resulting state specific estimate of 2010 assessed values is then input  
13 into column " b" of the master property tax estimation worksheet. The anticipated  
14 year over year percentage change in assessed value, calculated by dividing  
15 estimated 2010 assessed value by the final 2008 assessed value, is then used to  
16 project tax expense for 2010.

17 **Q. Do you have any other concerns with Staff' s calculation of the proposed**  
18 **adjustment?**

19 A. Yes. In Staff/202, Ball/13, Staff makes an adjustment to prior year property tax  
20 expense in recognition of the fact that additional tax will be owed during future  
21 years when the enterprise zone related property tax exemption for the Leaning  
22 Juniper wind resource expires. However, it is unclear why only \$600,000 is  
23 added back in the Commission' s 2007 actual column when \$1,200,000 is added



1 back in the 2008 column. To the extent that Staff intended to recognize the  
2 amount of additional tax that will be paid once the existing enterprise zone  
3 exemption expires, it would be necessary to add approximately \$1,200,000 to  
4 both the 2007 and 2008 columns instead of adding in \$600,000 for 2007 and  
5 \$1,200,000 for 2008. Lastly, I will note that PacifiCorp' s internally developed  
6 estimate of 2010 property tax expense already accounted for the expiration of the  
7 enterprise zone related exemption.

8 **Q. Does this conclude your testimony?**

9 A. Yes.



Docket No. UE-210  
Exhibit PPL/912  
Witness: C. Craig Paice

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Reply Testimony of C. Craig Paice**

**August 2009**

1 **Q. Are you the same C. Craig Paice that previously provided testimony in this**  
2 **docket?**

3 A. Yes.

4 **Purpose and Summary**

5 **Q. What is the purpose of your reply testimony?**

6 A. My reply testimony includes revised exhibits to reflect changes in the Oregon  
7 Results of Operations contained in the reply testimony of Company witness Mr.  
8 R. Bryce Dalley and to address several issues in the filed cost of service study.  
9 Additionally, I respond to the testimony of Staff of the Oregon Public Utility  
10 Commission (“ Staff” ) witness Dr. George Compton, the Industrial Customers of  
11 Northwest Utilities (“ ICNU” ) witness Mr. Donald Schoenbeck, the Citizens’  
12 Utility Board (“ CUB” ) witness Mr. Bob Jenks and the Klamath Water Users  
13 Association (“ KWUA” ) witness Mr. Gary Saleba.

14 **Q. Please summarize your testimony.**

15 A. My testimony:

- 16 • Explains the Company’ s proposed change to the methodology used to develop  
17 customer class loads and demonstrates that this methodology results in a  
18 better match between customer class loads and system loads. This addresses  
19 concerns raised by Staff and ICNU on this issue.
- 20 • Explains the revisions proposed by the Company to the inputs for street  
21 lighting customers.
- 22 • Explains revisions to the distribution feeder model to better match billing  
23 determinants to the underlying data in the cost study.

- 1           • Presents an updated line loss study that better reflects underlying megawatt-
- 2           hour sales.
- 3           • Responds to several proposed changes to the cost study recommended by
- 4           Staff, ICNU, CUB and KWUA.

5   **Updated Exhibits**

6   **Q.    Have you prepared any updates to the exhibits filed with your reply**

7   **testimony?**

8   A.    Yes. Exhibits PPL/913 through 919 are updates to Exhibits PPL/901 through

9       907. The revised exhibits reflect changes in the Oregon Results of Operations as

10       presented in Company witness Mr. Dalley’ s reply testimony. The application of

11       PacifiCorp’ s proposed rate increase, shown on page 2 of Exhibit PPL/913, is

12       consistent with Mr. Dalley’ s Exhibit PPL/707. The revised exhibits also reflect

13       the following changes to the filed cost of service study:

- 14           • Customer class loads were used in lieu of customer load factors as inputs
- 15           to develop customer demand values.
- 16           • Inputs to the cost of service study related to street lighting customers were
- 17           revised.
- 18           • Several inputs related to the hypothetical distribution feeder model were
- 19           modified.
- 20           • Adjusted demand and energy line loss values based on the revised Oregon
- 21           line loss study.

22   **Q.    What are the implications of the updated cost of service results?**

23   A.    The overall revenue requirement decrease coupled with updates to the marginal

1 cost of service study produces cost reductions for all customer classes.  
2 Significant cost reductions occur for Irrigation Schedule 41 (approximately 8  
3 percent) and Street Lighting, Schedules 51, 53, and 54 (approximately 47  
4 percent). Cost reductions for large general service customers, Schedules 30 and  
5 48, range from 1.4 percent to 2.7 percent. Cost reductions for small general  
6 service customers, Schedules 23 and 28, range from 0.8 percent to 1.9 percent.  
7 Cost reductions for residential customers, Schedule 4, are 0.08 percent.

### 8 **Customer Class Loads**

9 **Q. Please explain why you are proposing to change the methodology used to**  
10 **develop customer class loads?**

11 A. Customer class loads used in the cost of service study that accompanied my direct  
12 testimony (see Exhibit/PPL 907, Tab 2.3, lines 5-7) were derived using class load  
13 factors. This method required megawatt hours at the generation level to be  
14 divided by 8,760 hours and then divided by the appropriate load factor to estimate  
15 system, feeder and transformer loads used in the cost study. The class load factor  
16 method is a legacy method used for a number of years before information  
17 necessary to develop specific class loads was available. This method can be  
18 imprecise because loads are calculated from forecasted energy, grossed up for  
19 energy-related loss factors, instead of directly using demand-related loss factors.  
20 In the Company' s direct case, this method resulted in a megawatt discrepancy  
21 when comparing class loads to jurisdictional loads.

22 In response to concerns expressed by Dr. Compton and Mr. Schoenbeck  
23 regarding these “ missing MW,” and as a result of additional analysis, the

1 Company determined that customer class loads can and should be calculated from  
2 actual Load Research sample data. As a result, customer class loads now more  
3 closely match total system loads.

4 Using the updated methodology, the revised customer loads result in only  
5 a two percent difference between customer class loads and total system loads. As  
6 such, the Company proposes to incorporate the revised customer class loads  
7 (adjusted by demand-related losses) into the cost of service study to: 1) replace  
8 load data based on the previous load factor method, and 2) mitigate the megawatt  
9 differences between class and jurisdictional loads.

10 **Q. How were the proposed customer class loads developed?**

11 A. Customer class peaks were calculated using actual average Load Research sample  
12 data expanded by customer populations and adjusted to the forecasted energy  
13 usage for the test period. Exhibit PPL/919, Tab 1.3, lines 7-9 shows three  
14 different load values (Peak MW @ Generator) developed for each customer class.

- 15 • Line 7 represents the average of 12 monthly peaks at the time of the  
16 PacifiCorp system peak or Coincident Peak (“ CP” ) loads, also referred to  
17 as system loads.
- 18 • Line 8 represents the average of 12 monthly peaks at the time of the  
19 Company’ s Oregon distribution system peak or Distribution Coincident  
20 Peaks (“ DCP” ), also referred to as feeder loads.
- 21 • Line 9 represents the annual maximum non-coincidental peaks (“ NCP” ),  
22 also referred to as transformer loads. Various rate schedule NCP values

1 are adjusted by a coincidence factor to recognize diversity existing among  
2 classes whose customers share a transformer.

### 3 **Street Lighting Revisions**

4 **Q. Please explain revisions made to the street lighting customer inputs.**

5 A. In response to Staff data request 317, three street lighting inputs were identified  
6 for revision:

- 7 • On Tab 3.2 of Exhibit PPL/907, the number of 400 watt lamps on  
8 Schedule 51 was mistakenly entered as 13,228. This represented the total  
9 number of Schedule 51 monthly bills for the historic test period. The  
10 actual number of 400 watt lamps on this schedule is 1,102 (13,228 divided  
11 by the 12 billing months in the test period). As such, the number of lamps  
12 for the Street Lighting class was overstated in the cost of service study.
- 13 • An earlier draft version of the forecast of customers and energy was used  
14 for the street lighting class instead of the final version that was used for  
15 other classes as shown on Tab 3.2 of Exhibit PPL/907.
- 16 • Lamp line watt values used on Tab 3.4 of Exhibit PPL/907 were not  
17 updated in the initial filing.

18 Updates have been made to the marginal cost of service study to reflect each of  
19 these changes.

### 20 **Hypothetical Distribution Feeder Model**

21 **Q. Please explain revisions to the distribution feeder model.**

22 A. The Company updated the feeder model residential and irrigation customer  
23 counts, slightly modifying the customers-per-mile number from 30.69 to 29.70.



1 Also, the large customer results (greater than 4 megawatts) from the feeder model  
2 are now included in the cost of service study. This results in a better match  
3 between the billing determinants used to develop prices and the underlying data in  
4 the cost study. These changes have also been incorporated into the updated cost  
5 of service study.

#### 6 **Adjusted Demand and Energy Line Losses**

7 **Q. Please explain the adjustments to the line loss factors.**

8 A. The Company's Oregon 2007 Analysis of System Losses was adjusted in  
9 response to data requests from Mr. Schoenbeck. The underlying megawatt-hour  
10 sales used in the original 2007 line loss study were inadvertently misstated.  
11 Subsequently, line losses were recalculated by the Company and provided to Mr.  
12 Schoenbeck. These adjusted numbers were utilized to develop the Company's  
13 revised cost of service study and rate design exhibits sponsored by Company  
14 witness Mr. William R. Griffith. Revised line loss factors are provided in Exhibit  
15 PPL/920.

#### 16 **Reply to Opening Testimony of Dr. George Compton**

17 **Q. Do you agree with the long-run marginal generation energy cost adjustment**  
18 **that Dr. Compton presents in his opening testimony?**

19 A. I agree with Dr. Compton that there is a need to incorporate more current natural  
20 gas prices into the marginal cost of service study; however, I do not accept his  
21 proposed method of determining those prices. He proposes to reduce the  
22 Company's natural gas price in each year of the 20-year stream by an arbitrary  
23 value equal to 5/8 of the value shown in the marginal cost study (a reduction of

1 3/8). This results in an amount equal to \$5/MMBTu beginning in 2010. Dr.  
2 Compton claims this value is more in line with the recent pricing of natural gas  
3 than the \$8 per MMBTu value (beginning in 2010) used in the Company' s initial  
4 filing. Dr. Compton's response to the Company' s data request 2.15, included as  
5 Exhibit PPL/921, identifies the basis for his gas price assumptions:

6 “ As a subscriber to the *Wall Street Journal* I' m regularly exposed  
7 to articles referring to the natural gas industry ... However, the  
8 following citation from the Googled reference, “ Natural Gas” by  
9 Tom Whipple in the journal of the *Association for the Study of Peak*  
10 *Oil and Gas*, June 22, 2009, should be sufficient for the limited  
11 purpose of my testimony ...”

12 PacifiCorp does not believe Dr. Compton' s response sufficiently justifies  
13 the appropriate gas prices the Company might expect to incur during the next 20  
14 years. Dr. Compton' s proposed methodology results in an amount equal to  
15 \$5/MMBTu in 2010, escalating to \$5.38/MMBTu in 2029, an increase of only eight  
16 percent in 20 years. The 20-year stream of natural gas prices included in the  
17 Company' s marginal cost of service study was taken from the Company's last  
18 approved avoided cost filing in 2007 - specifically, Table 9 in Advice No. 07-014.  
19 The Company' s methodology uses avoided costs to approximate generation-  
20 related marginal costs and was approved by the Commission in Docket UM 827,  
21 Order No. 98-374 at 14 where it states:

22 We conclude that using avoided cost for marginal generation  
23 costs is appropriate in an increasingly competitive generation  
24 market.

25 The Company recently filed an avoided cost study with the Commission on July  
26 9, 2009 showing more current natural gas prices (\$5.78/MMBTu in 2010) and is

1 willing to update the marginal cost of service study following approval of new  
2 avoided costs by the Commission.

3 **Q. Do you agree with Dr. Compton that marginal generation demand-related**  
4 **costs should be developed from a single coincident peak (1 CP)?**

5 A. No. I do not agree with this recommendation for several reasons. First, the  
6 Company has historically allocated costs using the 12 CP methodology to  
7 recognize that the entire six-state system is planned and dispatched on an  
8 integrated basis. To model actual system operations, PacifiCorp has utilized the  
9 12 CP methodology to allocate system generation demand costs since its merger  
10 with Utah Power in 1989. PacifiCorp also utilizes the 12 CP methodology  
11 because it recognizes that the Company serves customers for all twelve months of  
12 the year, and that each of the monthly peaks is important.

13 Second, the 12 CP methodology assures consistency in allocation methods  
14 between the Jurisdictional Allocation Model (“ JAM” ) and class cost of service  
15 (“ COS” ) model. Finally, the opening testimony of CUB witness Mr. Bob Jenks at  
16 CUB/100, Jenks/20, provides further support for using 12 monthly coincident  
17 peaks. He shows that the Gadsby natural gas fired generation plant, a simple  
18 cycle combustion turbine that the Company uses to meet its peak requirements,  
19 has operated for 10 consecutive months, from June 2008 through March 2009.

20 **Q. Do you agree with Dr. Compton’ s proposal to increase system coincident**  
21 **loads by a 12 percent reserve margin?**

22 A. Not at the present time. As previously mentioned, marginal generation costs are  
23 based on the Company’ s approved avoided cost study which does not include a

1 reserve margin. The Commission decision approving use of avoided costs for  
2 estimating marginal generation costs makes no mention of a reserve margin, nor  
3 do the state loads included in the JAM (to which the COS class loads are  
4 compared) include a reserve margin. Also, Dr. Compton provides no analysis or  
5 substantive support for the inclusion of a reserve margin. He only expresses his  
6 concern at the absence of a reserve margin. The inclusion of a reserve margin in  
7 the marginal cost study should be determined by either a consensus agreement  
8 among all parties or Commission order.

9 **Q. Dr. Compton raises issues with the Company' s method of allocating trunk-**  
10 **related costs in the distribution feeder model. How are trunk-related costs**  
11 **allocated?**

12 A. All trunk costs (branches 6 and 7) are allocated on the basis of demand.

13 **Q. Do you agree with Dr. Compton' s proposal to revise the allocation of trunk**  
14 **costs in the feeder model by allocating a portion of trunk costs to**  
15 **commitment?**

16 A. No. Customer load is the criterion used by Company engineers to determine the  
17 type of conductor and associated poles used for the feeder trunk. At each point on  
18 the feeder, the conductor must be sized to carry the entire downstream load.

19 Branches 6 and 7 are composed of larger conductor and poles that are needed to  
20 serve the larger load closer to the substation. More than 85 percent of the feeder  
21 load is located on branches 6 and 7 and all demand on the feeder flows from the  
22 substation through branch 7. Outer branches 1 through 5 of the feeder are  
23 significantly different from the feeder trunk. Loads on branches 1 through 5 are

1 smaller. These branches are also farther away from the substation and do not feed  
2 into other branches. As such, classifying trunk-related costs as demand is  
3 appropriate.

4 **Q. Is Dr. Compton's other recommendation to assign commitment costs to**  
5 **demand appropriate?**

6 A. No. Feeder model commitment costs are not determined by the level of customer  
7 demand, rather they are a direct function of constructing a branch with the  
8 smallest single-phase conductor and the smallest pole. This would provide  
9 customers access to the distribution system even though those customers required  
10 no load. Assigning costs related to a minimum-sized system (one that does not  
11 vary with load) based on demand does not comport with standard cost allocation  
12 practices.

13 **Q. Why should distribution feeder model commitment costs be allocated on the**  
14 **basis of customers?**

15 A. Commitment costs, which are only assigned to the outer branches in the feeder  
16 model are defined by the minimum size conductor and poles used by the  
17 Company. As previously discussed, the basis for these types of costs is not  
18 demand, but the number of customers connected to the system. This method of  
19 calculating marginal distribution costs was recognized as reasonable by the  
20 Commission in its decision in Order No. 98-374 at 11 when discussing the  
21 systems used by Portland General Electric (“ PGE” ) (facilities) and PacifiCorp  
22 (minimum system):

23 We conclude that the facilities design and minimum system

1 approaches are reasonable methods for calculating marginal  
2 distribution costs. The minimum system and facilities design  
3 approaches categorize the costs of the distribution system that  
4 are dedicated to the specific groups of customers at the time of  
5 installation. These costs are not affected by actual usage and  
6 do not benefit from the diversity of system-wide or feeder-wide  
7 load. The minimum system approach identifies these costs as a  
8 function of the number of customers on the system.

9 **Q. Do you agree with Dr. Compton's proposal that distribution peak demand**  
10 **should be based on a single distribution peak (" 1 DCP" ) instead of a twelve**  
11 **distribution coincident peaks (" 12 DCP" ) method?**

12 A. No. The Company has determined that distribution system demand-related costs  
13 should be based on the cost-causal link between customer service characteristics  
14 and utility costs. This link is established when costs are allocated using service  
15 characteristics that are the same or similar to those employed by utility engineers  
16 when making investment decisions. The Company' s position comports with the  
17 following statement by the Commission in Order No. 98-374 at 11:

18 PGE makes a compelling argument that distribution marginal  
19 costs should be based on the decisions of system planners who  
20 design the distribution system. This is a reasonable way to allo-  
21 cate costs based on cost causation.

22 System engineers have determined that using a 12 DCP method to allocate  
23 demand-related pole and conductor costs is appropriate because these costs are  
24 incurred by the Company from diverse customer loads occurring throughout all  
25 twelve months. Load diversity is recognized in the planning process. The  
26 Company prepared an additional analysis showing that: 1) different distribution  
27 substations reached their annual peaks in all months throughout the year; and 2) a

1 majority of substations did not reach their annual peak in a single month. This  
2 data is provided in Exhibit PPL/922.

3 **Q. Does the Company use a 12 DCP method to allocate distribution-related**  
4 **costs in other jurisdictions?**

5 A. Yes. The Company has also used the 12 DCP method in California, Idaho,  
6 Wyoming and Utah.

7 **Q. Dr. Compton references that most utilities, including PGE, classify pole and**  
8 **conductor costs as demand related. Do you believe this is a valid reason for**  
9 **the Company to change its methodology?**

10 A. No. The Company' s Oregon distribution system was designed to meet the unique  
11 needs of its primarily rural service territory. PGE' s system, on the other hand,  
12 serves a much denser urban population. A utility should be allowed to choose the  
13 approach that best fits the particular circumstances of its system and the  
14 characteristics of its customers.

15 **Reply to Opening Testimony of Mr. Donald Schoenbeck**

16 **Q. Mr. Schoenbeck points out that demand loss factors were not used in the**  
17 **Company' s filed marginal cost of service study. Have any changes been**  
18 **made to incorporate specific loss factors for demand?**

19 A. Yes. The Company agrees with Mr. Schoenbeck that both demand and energy  
20 loss factors should be used in the preparation of marginal costs. In the revised  
21 marginal cost of service study included with my reply testimony, demand loss  
22 factors were applied to Oregon customer class load data as recommended by Mr.  
23 Schoenbeck. Earlier in my testimony, I addressed this proposed change to use

1 customer class load data based on load research sample load data to derive  
2 marginal demand-related costs.

3 **Q. Mr. Schoenbeck applies facility-specific loss factors to different customer**  
4 **categories, rather than the average secondary, primary and transmission**  
5 **voltage levels for all customer categories. Do you agree with this approach?**

6 A. No. The Company does not support Mr. Schoenbeck' s approach since it fails to  
7 reflect the integrated nature of system losses and it could, if carried to its logical  
8 conclusion, result in individual loss factors being applied to each customer. Such  
9 a result would be inconsistent with the " postage stamp" nature of the Company' s  
10 retail rates.

11 Mr. Schoenbeck' s approach recalculates loss factors for Schedule 48  
12 customers only, while failing to readjust losses for all other customer classes. In  
13 order to accurately capture total line losses, calculation of loss factors for one  
14 class of customers requires that loss factors must be recalculated for all other  
15 customer classes at the same time. Failure to do so will not account for total line  
16 losses on the system. As a result, this calculation produces an inappropriate cost  
17 reduction for Schedule 48 customers, with no corresponding change for any other  
18 rate schedule classes.

19 **Q. Are there additional concerns with Mr. Schoenbeck' s method of**  
20 **recalculating loss factors?**

21 A. Yes. When estimating peak demand and energy loss factors for Schedule 48  
22 primary and secondary customers, Mr. Schoenbeck assumes that any customer  
23 with a demand greater than 2,000 kW was served from a dedicated customer



1           substation. Mr. Schoenbeck acknowledges that no basis exists for this  
2           assumption other than his judgment. *See* Exhibit PPL/923 (ICNU response to  
3           PacifiCorp data request 1.2).

4                       Contrary to his assumption, the Company’ s distribution engineers indicate  
5           that dedicated substations are typically located immediately adjacent to the  
6           customer being served, but no more than one-half mile away. Using one-half  
7           mile as the maximum distance between a substation and a dedicated customer, the  
8           Company prepared Exhibit PPL/924, which shows substation distances and load  
9           size data for Schedule 48 customers extracted from the Company’ s Computer  
10          Aided Distribution Operations System (“ CADOPS” ) and Customer Service  
11          System (“ CSS” ). The exhibit shows 72 customers with loads in excess of 2,000  
12          kW. Seventy-five percent of these customers are served at a distance of one-half  
13          mile or greater from the substation. The average distance from the substation for  
14          customers over 2,000 kW is 1.50 miles. This exhibit clearly demonstrates that  
15          Mr. Schoenbeck’ s assumption that all customers over 2,000 kW are served from a  
16          “ dedicated substation” is incorrect.

17   **Q.   Mr. Schoenbeck advocates using only January, July, August and December**  
18   **system peaks for allocating generation capacity costs and January and**  
19   **February system peaks for allocating transmission costs. Do you agree with**  
20   **his position?**

21   A.   No. For reasons previously cited, the Company continues to use the 12 monthly  
22          coincident peaks to allocate generation and transmission costs. In addition, the  
23          Company considers the transmission system to be an extension of the generation

1 system since investments in high-voltage bulk transmission lines are being made  
2 to move both demand and energy. It is usually not possible to site a generating  
3 plant close to the customers the plant is intended to serve. Therefore,  
4 transmission lines are constructed to transmit energy being generated, along with  
5 the accompanying capacity. This position also comports with the following  
6 statement from the 1992 *Electric Utility Cost Allocation Manual* published by  
7 National Association of Regulatory Utility Commissioners (“ NARUC” ) at 75:

8 .. the transmission system is essentially considered to be an  
9 extension of the production system, where the planning and  
10 operation of one is inexorably linked to the other. Thus, the  
11 major factors that drive production costs, it is argued, tend to  
12 drive transmission costs as well.

13 **Q. Mr. Schoenbeck argues that substations and demand-related feeder costs be**  
14 **allocated based upon a single non-coincident peak (“ 1 NCP” ). Do you agree**  
15 **with his assessment?**

16 A. No. The Company allocates demand-related distribution using 12 DCP. By using  
17 this method, costs are allocated using service characteristics that are the same or  
18 similar to those used by utility engineers to make investment decisions; resulting  
19 in a cost-causal link between customer service characteristics and utility costs.

20 Distribution engineers primarily design distribution substations, poles and  
21 conductors to meet the simultaneous peak load of connected customers. This  
22 peak load recognizes the concept of customer diversity (i.e., characteristic  
23 whereby individual customer peak demands usually occur at different times).  
24 Substations, poles and conductors are used by many customers, and they do not  
25 need to be large enough to meet the maximum peak demand or NCP. These

1 facilities need to be just large enough to meet customers' simultaneous  
2 (coincident) distribution peak demand. Use of the 12 DCP method accomplishes  
3 this goal and is employed in cost of service studies prepared and filed by the  
4 Company in Oregon, California, Idaho, Utah, and Wyoming.

5 **Q. Mr. Schoenbeck recommends using a 1 NCP to develop line transformer**  
6 **costs. Do you agree with his position?**

7 A. I agree that a single NCP should be used to develop line transformer costs, but I  
8 am opposed to using only a winter peak as recommended by Mr. Schoenbeck. To  
9 be more consistent with cost causation, I recommend that transformer demand-  
10 related costs be calculated using the annual maximum NCP for each customer rate  
11 schedule. Where multiple customers on the same rate schedule are connected to  
12 one transformer, the annual maximum NCP should be adjusted by a coincidence  
13 factor to recognize load diversity. The key cost driver of line transformer  
14 investment is customer peak demand which can occur in any of the twelve months  
15 of the year. Based on my recommendation, the annual maximum NCP by rate  
16 schedule was used in the revised marginal cost of service study for allocating line  
17 transformers.

18 **Q. Do you agree with Mr. Schoenbeck that a portion of the trunk should be**  
19 **allocated to commitment in the feeder model?**

20 A. No. Since his position is similar to Dr. Compton's, please refer to my earlier  
21 discussion of this subject.

1 **Reply to Testimony of CUB witness Mr. Bob Jenks**

2 **Q. Mr. Jenks presents a discussion regarding “ sunk costs.” Which of the**  
3 **Company’ s total costs are sunk and which are not?**

4 A. Bonbright’ *Principles of Public Utility Rates* (Second Edition, 1988, page 30),  
5 states the “ essential characteristics of a sunk investment is that the productive  
6 capital facilities are so specialized as to location or purpose that they cannot  
7 easily be converted to alternative productive uses.” According to this definition,  
8 almost all of the Company’ s costs could be considered “ sunk investments,” i.e.,  
9 generating plants, transmission lines, substations and computer systems, etc.  
10 Actually, there would be very few capital investments made by the Company that  
11 could not be considered a “ sunk investment.”

12 **Q. Should these “ sunk costs” be included in the Company’ s marginal cost of**  
13 **service study?**

14 A. Yes. The Company’ s marginal cost of service study takes a long-run approach to  
15 assigning costs to the various customer classes. A very important component of  
16 these long-run costs is capital investment that could be considered “ sunk costs.”  
17 If costs associated with Company’ s investments (i.e., generating plants,  
18 transmission lines, and substations) were not allocated to customer classes,  
19 significant cost drivers currently presented in the cost of service study would be  
20 ignored.

1 **Q. Mr. Jenks states that meters and service drops are not truly marginal costs**  
2 **except when new customers sign up for service and this new customer growth**  
3 **should determine meter and service drop costs. Do you agree?**

4 A. No. Meters and service drops could also be considered a “ sunk cost,” one that  
5 does not go away when a customer relocates. However, allocating meters and  
6 service drops based on only new customers ignores the costs the Company must  
7 incur to maintain, upgrade, and replace equipment for existing customers. In  
8 Order No. 98-374 at 11, the Commission rejected these same arguments. The  
9 Order states:

10 We also reject CUB’ s argument that metering and billing costs are  
11 sunk and, therefore, should not be included in a marginal cost  
12 study. PGE and PacifiCorp demonstrated that the costs of these  
13 components should be considered in a marginal costs study. There  
14 are repairs, maintenance, upgrades, and opportunity costs that  
15 require expenditures at the margin by the utility. These costs are  
16 appropriately included in the marginal cost study.

17 **Q. Does allocating meters and service drops using only new customer numbers**  
18 **produce reasonable results?**

19 A. No. Under this methodology, customer classes decreasing in size would receive a  
20 negative allocation of meters and service drop costs. These customer classes  
21 would be rewarded for abandoning the investment the Company made to serve  
22 them. This approach could also introduce unnecessary volatility into the  
23 Company’ s cost of service study since some classes could receive cost reductions  
24 (if customer numbers declined) in one rate case, yet be allocated cost increases in  
25 a subsequent case (if customer numbers increased). This scenario would occur  
26 simply because costs were being allocated based on a count of new customers.

1 **Q. Is the Company' s approach of assigning the cost of new meters and service**  
2 **drops to customers flawed since many of these meters and services were**  
3 **previously purchased at lower prices?**

4 A. No. The Company' s cost of service study is a marginal cost of service study, one  
5 which measures the incremental cost of different aspects of services. These costs  
6 are used to allocate the embedded revenue requirement. Moreover, existing  
7 customers require maintenance, repairs, and upgrades on their existing meter and  
8 service drop and will eventually require new equipment. A customer whose  
9 meter was purchased years ago at a lower price is the customer most likely to  
10 require a replacement at current prices. Allocating meter and service drop costs  
11 based on the most recent price is a reasonable practice.

12 **Q. Mr. Jenks references several characteristics of customers on branch 5 of the**  
13 **Company' s feeder model. He points out that residential customers make up**  
14 **79 percent of customers on branch 5 and 62 percent of peak demand on**  
15 **branch 5, but are allocated 75 percent of cost. Is this a reasonable**  
16 **comparison?**

17 A. No. Branches 1 through 5 of the Company' s feeder model represent the segments  
18 of the feeder that are farther away from the substation and contain fewer  
19 customers per mile than the trunk. As such, little investment in larger poles and  
20 wire has been made beyond the minimum size system to accommodate a greater  
21 level of demand on these branches. The principal cost driver on these branches is  
22 the investment in poles and conductors required over long distances to serve rural  
23 and isolated pockets of customers. It should be expected that more remote

1 segments, which are not sized much beyond the minimum required size, would  
2 have a much higher portion of commitment or customer related costs.

3 **Q. Mr. Jenks states: “ Poles and conductors serve a single purpose: they are**  
4 **designed to transmit electricity from the substation to the customer. They**  
5 **carry energy. They have to be sized to meet the peak demand that is**  
6 **expected on them.” Is this statement correct?**

7 A. It is partially correct. However, poles and conductors do more than provide  
8 customers with electricity. They also provide customers with access to  
9 electricity. This access is invaluable to customers even if they use only a small  
10 amount of electricity. For example, a remote vacation cabin that is occupied  
11 sparingly during a year compared to a residence occupied year-round will have  
12 very little electric usage. It is unlikely this location will require larger size poles  
13 and conductors to meet electric load. Nonetheless, access to electricity is  
14 important to the owner, even though usage is on a limited basis during the year.  
15 To receive electric service, the owner will continue to pay for access to the  
16 system in addition to the actual electricity used. This is an important principle in  
17 pole and conductor classification.

18 **Q. Mr. Jenks recommends that the generation energy price used in the marginal**  
19 **cost of service study include 37 percent wind, because of the Renewable**  
20 **Energy Standard that was established with the passage of SB 838. Should his**  
21 **proposal be incorporated in the Company’ s marginal cost of service study?**

22 A. Perhaps at some point in the future. The Company’ s avoided costs do not  
23 currently include a wind generation component. However, as discussed earlier in

1 my testimony, the Commission concluded in UM 827 that using avoided costs to  
2 develop marginal generation costs was appropriate. The cost of service study  
3 should comport with the established practice until such time that the Commission  
4 revises its position on this subject.

5 **Q. Regarding a carbon regulatory cost, Mr. Jenks notes that “ PacifiCorp’ s**  
6 **workpapers do not identify such a cost being included in the forecast of**  
7 **marginal energy costs.” Do the marginal generation energy costs included in**  
8 **the cost of service study include an environmental adder?**

9 A. Yes. Environmental-adders of \$2.31 per megawatt-hour for combined cycle  
10 combustion turbines and \$3.79 per megawatt-hour for simple cycle combustion  
11 turbines were embedded within the avoided cost study used in the Company’ s  
12 marginal cost of service study.

13 **Q. Do you agree with Mr. Jenks’ position concerning the allocation of marginal**  
14 **generation demand costs?**

15 A. Yes. For reasons previously mentioned, the Company continues to use and  
16 support the 12 CP method for the allocation of these costs in the cost of service  
17 study.



1 **Rebuttal of KWUA witness Mr. Gary Saleba**

2 **Q. Mr. Saleba makes the statement that “ PacifiCorp does not provide sufficient**  
3 **evidence in its filing to support the conclusion that its marginal energy costs**  
4 **are the same across the year.” Why didn’ t the Company differentiate energy**  
5 **costs by time period in its marginal cost of service study?**

6 A. As stated earlier in my testimony, the Commission ordered that it was appropriate  
7 to develop marginal generation costs based upon avoided costs in UM 827. The  
8 approved avoided cost study does not distinguish time-differentiated energy  
9 prices.

10 **Q. Regarding time-differentiation of energy costs, Mr. Saleba states that**  
11 **“ Absent such a showing PacifiCorp must differentiate their energy cost**  
12 **allocation within the COSA by season.” Do you agree with this statement?**

13 A. No. The precedent in Oregon is to use the approved avoided cost study. If a  
14 party chooses to propose a method that departs from the Commission-approved  
15 methodology, it is the party’ s burden to provide analysis and support. Mr. Saleba  
16 provided no analyses or related data supporting his assertion.

17 **Q. Mr. Saleba claims that there are significant unresolved questions about how**  
18 **the feeder model takes into account individual irrigation customers and their**  
19 **location. Does he identify these unresolved questions?**

20 A. No.

1 **Q. Mr. Saleba also asserts that the Company did not provide sufficient**  
2 **information for support, including irrigation customers in the hypothetical**  
3 **feeder model due to the absence of specific documentation regarding size,**  
4 **location and customer density. Is he correct?**

5 A. No. The hypothetical feeder model, which estimates customer distribution pole  
6 and conductor costs, is fully documented. A description of the feeder model  
7 development was provided in Exhibit PPL/907 (pages 5-13). This description  
8 specifically references use in the feeder model of CADOPS data to determine  
9 customer distances. The Company received no data requests on this issue from  
10 Mr. Saleba. Ultimately, the Company provides the same level of detail for all rate  
11 schedule classes in the cost of service study and in the feeder model.

12 **Q. Does this conclude your reply testimony?**

13 A. Yes.



Docket No. UE-210  
Exhibit PPL/913  
Witness: C. Craig Paice

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of C. Craig Paice  
Functionalized Revenue Requirement**

**August 2009**

**PACIFICORP**  
**STATE OF OREGON**  
**Combined GRC and TAM**  
**Functionalized Revenue Requirement**  
**12 Months Ended December 31, 2010 Forecast**

<b>Function</b>	<b>Revenue Requirement</b>
Production	\$ 628,341,142
Transmission	\$ 82,092,130
Distribution	\$ 277,575,414
Ancillary	\$ 11,174,486
Customer Billing	\$ 11,527,729
Customer Metering	\$ 28,212,303
Customer Other	\$ 13,136,076
Retail Service	a \$ -
Public Purposes	b \$ -
Total State of Oregon	<u>\$ 1,052,059,281</u>

a - Retail Services are conducted as unregulated activities.

b - DSM is collected by a separate tariff.

Public Purposes are collected by a separate tariff.

**PACIFICORP**  
**STATE OF OREGON**  
**Combined GRC and TAM**  
**Functionalized Revenue Requirement**  
**12 Months Ended December 31, 2010 Forecast**

	ROR	ROE	Total	Production	Transmission	Distribution	Ancillary	Billing	Consumer Metering	Other	Retail Service	Public Purposes	Distribution Components	
													Poles & Wires	DSM
2 Functionalized Situs Revenues @ Earned	6.42%	6.86%	949,341,303	575,596,122	65,110,984	246,116,498	11,174,486	11,245,101	27,169,088	12,929,025	-	-	0	22,233,321
3 System Allocated Revenues			-	-	-	-	-	-	-	-	-	-	-	-
4 Total Oregon General Business Revenue			949,341,303	575,596,122	65,110,984	246,116,498	11,174,486	11,245,101	27,169,088	12,929,025	-	-	0	22,233,321
5 Target Increase in Return	8.53%	11.00%	61,922,602	32,533,232	10,474,005	17,969,873	0	174,326	643,457	127,710	-	-	-	-
6 Add														
9 Uncollectible Expense			545,609	280,167	90,199	167,101	0	1,501	5,541	1,100	-	-	-	12,350
10 Franchise Tax			2,311,154			2,311,154								2,311,154
11 Other Revenue Based Taxes			64,920	33,336	10,732	19,883	0	179	659	131	-	-	-	1,469
12 Inc Taxes - State			4,530,752	2,380,391	766,362	1,314,819	0	12,755	47,080	9,344	-	-	-	1,314,819
13 Inc Taxes - Federal			33,342,940	17,517,894	5,639,849	9,676,085	0	93,868	346,477	68,767	-	-	-	9,676,085
14 Total Increase Needed			102,717,977	52,745,020	16,981,147	31,458,916	0	282,629	1,043,214	207,051	-	-	-	2,324,974
15														
16 Total Oregon General Business Revenue @	8.53%	11.00%	1,052,059,280	628,341,142	82,092,130	277,575,414	11,174,486	11,527,729	28,212,303	13,136,076	-	-	0	24,558,294
17 Less: System Allocated Revenues			-	-	-	-	-	-	-	-	-	-	-	-
18 Total Unbundled Revenue Requirement			1,052,059,280	628,341,142	82,092,130	277,575,414	11,174,486	11,527,729	28,212,303	13,136,076	-	-	0	24,558,294
19														
20 Rate Base			2,936,122,521	1,542,595,958	496,635,482	852,059,617	1	8,265,839	30,510,148	6,055,475	0.000%	0.000%	0.000%	0.000%
				52.539%	16.915%	29.020%	0.000%	0.282%	1.039%	0.206%	0.000%	0.000%	0.000%	29.020%

Source:  
Total Column : Exhibit PPL 902  
Row 1: Exhibit PPL 902  
Row 8: Uncollectible  
Row 9: Franchise Tax @  
Row 10: Other Revenue Based Taxes  
Row 11: Inc Taxes - State  
Row 12: Inc Taxes - Federal  
Row 19: Exhibit PPL 1002

Notes:  
a - Retail Services are conducted as unregulated activities.  
b - DSM is collected by a separate tariff.  
Public Purposes are collected by a separate tariff.



Docket No. UE-210  
Exhibit PPL/914  
Witness: C. Craig Paice

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of C. Craig Paice**

**Unbundled Results of Operations**

**August 2009**



**PACIFICORP**  
**STATE OF OREGON**  
**Combined GRC and TAM**  
**Unbundled Results of Operations**  
**12 Months Ended December 31, 2010 Forecast**

<u>Description of Account Summary:</u>	<u>Normalized</u>	<u>Production</u>	<u>Transmission</u>	<u>Distribution</u>	<u>Ancillary</u>	<u>C Billing</u>	<u>C Metering</u>	<u>C Other</u>
Operating Revenues								
1 General Business Revenues	949,341,303	575,596,122	65,110,984	246,116,498	11,174,486	11,245,101	27,169,088	12,929,025
2 General Business Revenues	-	-	-	-	-	-	-	-
3 Interdepartmental	-	-	-	-	-	-	-	-
4 Special Sales	186,446,628	148,294,143	38,152,485	-	-	-	-	-
5 Other Operating Revenues	42,876,160	24,677,064	20,913,916	3,829,688	(11,174,486)	4,615,089	11,832	3,057
6 Total Operating Revenues	1,178,664,091	748,567,329	124,177,385	249,946,185	0	15,860,190	27,180,920	12,932,082
Operating Expenses:								
9 Steam Production	250,559,290	250,559,290	-	-	-	-	-	-
10 Nuclear Production	-	-	-	-	-	-	-	-
11 Hydro Production	9,911,805	9,911,805	-	-	-	-	-	-
12 Other Power Supply	261,435,192	261,435,192	-	-	-	-	-	-
13 Transmission	52,555,833	227,849	52,327,985	-	-	-	-	-
14 Distribution	70,710,593	-	-	65,959,265	-	-	4,751,328	-
15 Customer Accounts	31,710,902	3,203,339	531,391	1,069,593	0	10,454,727	10,493,813	5,958,039
16 Customer Service	3,695,469	-	-	1,198,841	-	-	-	2,496,628
17 Sales	-	-	-	-	-	-	-	-
18 Administrative & General	49,670,470	18,650,096	4,739,965	19,576,953	-	1,857,343	3,178,446	1,667,667
20 Total O & M Expenses	730,249,555	543,987,570	57,599,341	87,804,653	0	12,312,070	18,423,587	10,122,334
22 Depreciation	147,845,235	74,721,230	19,263,620	50,682,215	-	240,694	2,686,782	250,695
23 Amortization Expense	16,476,351	8,613,341	999,828	3,245,748	-	1,511,417	1,158,825	947,191
24 Taxes Other Than Income	51,966,873	14,760,151	4,645,773	31,733,906	0	202,475	486,446	138,122
25 Income Taxes - Federal	23,758,403	(373,894)	5,939,691	14,240,198	0	912,729	2,067,334	972,345
26 Income Taxes - State	4,838,128	1,616,129	793,032	1,901,266	0	121,862	276,018	129,822
27 Income Taxes - Def Net	17,114,105	8,669,451	3,138,265	5,172,757	-	28,296	122,508	(17,174)
28 Investment Tax Credit Adj.	-	-	-	-	-	-	-	-
29 Misc Revenue & Expense	(2,076,505)	(2,457,569)	(84,959)	465,280	-	-	742	-
31 Total Operating Expenses	990,172,144	649,536,409	92,294,591	195,246,024	0	15,329,543	25,222,242	12,543,335
33 Operating Revenue for Return	188,491,947	99,030,920	31,882,794	54,700,162	0	530,647	1,958,677	388,747
Rate Base:								
36 Electric Plant in Service	5,543,234,819	2,662,161,725	897,899,724	1,837,922,900	-	34,630,374	87,906,695	22,713,401
37 Plant Held for Future Use	(0)	2,398,305	(2,398,306)	-	-	-	-	-
38 Misc Deferred Debits	20,133,708	8,370,921	11,029,863	336,614	-	96,053	186,184	114,072
39 Elec Plant Acq Adj	18,568,147	18,568,147	-	-	-	-	-	-
40 Nuclear Fuel	-	-	-	-	-	-	-	-
41 Prepayments	12,201,019	5,616,099	737,339	3,635,698	-	579,668	1,043,103	589,111
42 Fuel Stock	41,007,740	41,007,740	-	-	-	-	-	-
43 Material & Supplies	49,319,573	39,619,002	3,331,669	6,152,974	-	-	215,928	-
44 Working Capital	12,584,036	6,967,567	1,167,055	3,103,098	0	373,525	627,912	344,880
45 Weatherization Loans	(696)	-	-	(696)	-	-	-	-
46 Miscellaneous Rate Base	1,206,251	1,206,251	-	-	-	-	-	-
48 Total Electric Plant	5,698,254,596	2,785,915,758	911,767,344	1,851,150,587	0	35,679,620	89,979,822	23,761,465
Rate Base Deductions:								
51 Accum Prov For Depr	(2,041,168,235)	(917,607,943)	(317,172,989)	(767,605,245)	-	(2,546,282)	(34,554,054)	(1,681,723)
52 Accum Prov For Amort	(141,105,146)	(43,526,226)	(5,100,942)	(42,868,870)	-	(21,822,835)	(14,784,447)	(13,001,826)
53 Accum Def Income Taxes	(551,004,650)	(265,043,883)	(90,328,433)	(182,196,552)	-	(2,339,965)	(8,789,682)	(2,306,135)
54 Unamortized ITC	(4,172,305)	(1,686,630)	(200,801)	(1,418,610)	-	(227,033)	(408,458)	(230,773)
55 Customer Adv for Const	(3,499,244)	-	(1,906,223)	(1,536,895)	-	-	(56,126)	-
56 Customer Service Deposits	-	-	-	-	-	-	-	-
57 Misc. Rate Base Deductions	(21,182,496)	(15,455,118)	(422,474)	(3,464,798)	-	(477,665)	(876,907)	(485,534)
59 Total Rate Base Deductions	(2,762,132,076)	(1,243,319,800)	(415,131,862)	(999,090,970)	-	(27,413,780)	(59,469,674)	(17,705,990)
61 Total Rate Base	2,936,122,520	1,542,595,958	496,635,482	852,059,617	1	8,265,839	30,510,148	6,055,475
63 Return on Rate Base	6.4198%	6.4198%	6.4198%	6.4198%	6.4212%	6.4198%	6.4198%	6.4198%
65 Return on Equity	6.8647%	6.8647%	6.8647%	6.8647%	6.8675%	6.8647%	6.8647%	6.8647%



Docket No. UE-210  
Exhibit PPL/915  
Witness: C. Craig Paice

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of C. Craig Paice**

**Ancillary Service Revenues**

**August 2009**

**PACIFICORP**  
**STATE OF OREGON**  
**Combined GRC and TAM**  
**CY 2010 Ancillary Services Revenue**  
**12 Months Ended December 31, 2010 Forecast**

Line	Item	Notes	Thermal Resource	Hydro Resource	Other Resource	Firm Purchases	Total Resources
1	System Resources CY 2010 ( MWH )	( Note 1 )	54,812,550	3,932,604	2,708,907	10,123,248	71,577,309
2	Plant allocated to Oregon based on JAM dollars	( Note 2 )	26.94%	26.88%	26.83%	26.55%	
3	Oregon share of Resource Providing Service by type ( MWH )	( Line 1 x Line 2 )	14,766,136	1,056,961	726,700	2,688,108	19,237,905
4	Resource type % of total		76.76%	5.49%	3.78%	13.97%	100.00%
5	Oregon Retail Load, including Losses, by resource type	( Line 4 x Line 5 Total )	11,258,531	805,887	554,077	2,049,564	14,668,059
7	FERC Tariff Ancillary Service Charges						
8	Regulation and Frequency Response Service		NA	NA	NA	NA	14,668,059
9	Billing Determinant (Load Energy MWH)		NA	NA	NA	NA	0.1600
10	Charge (\$/MWH)		NA	NA	NA	NA	\$2,346,889
	Total Cost	( Line 8 x Line 9 )	NA	NA	NA	NA	
11	Operating Reserve - Spinning Reserve Service						
12	Billing Determinant (Generated Energy in MWH)		11,258,531	805,887	554,077	2,049,564	14,668,059
13	Charge (\$/MWH)		0.3730	0.2660	NA	NA	\$4,413,798
	Total Cost	( Line 11 x Line 12 )	\$4,199,432	\$214,366			
14	Operating Reserve - Supplemental Reserve Service						
15	Billing Determinant (Generated Energy in MWH)		11,258,531	805,887	554,077	2,049,564	14,668,059
16	Charge (\$/MWH)		0.3730	0.2660	NA	NA	\$4,413,798
	Total Cost	( Line 14 x Line 15 )	\$4,199,432	\$214,366			
17	Oregon Annual Ancillary Service Revenue ( \$ x thousands )	Line 10 + Line 13 + Line 16					\$11,174,486

Note 1 - Source: Net Power Cost Analysis

Note 2 - CY 2010 JAM Model

Total Electric Plant In Service by Plant Type (\$ x Millions)	Thermal	Hydro	Other	Total
Oregon	1,443.1	173.6	758.3	2,375.0
System	5,356.9	645.9	2,826.8	8,829.6
Percent of System	26.94%	26.88%	26.83%	26.90%

2008 JAM Model - Account 555 Purchased Power SG	Dollars
Oregon - Unadjusted	212,980,461
System	802,071,244
Percent of System	26.55%

2010 JAM Model - Production Plant	TOTAL	OTHER	OREGON
Total Steam Production Plant	5,356,904,948	3,913,790,389	1,443,114,957
Total Hydraulic Plant	645,856,763	472,270,582	173,586,171
Total Other Production Plant	2,826,805,765	2,068,478,363	758,327,403
TOTAL PRODUCTION PLANT	8,829,567,465	6,454,539,334	2,375,028,130



Docket No. UE-210  
Exhibit PPL/916  
Witness: C. Craig Paice

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of C. Craig Paice  
Oregon Marginal Cost of Service Summary**

**August 2009**

**PACIFICORP**  
**STATE OF OREGON**  
**Combined GRC and TAM**  
**Oregon Marginal Cost Study**  
**20 Year Marginal Cost By Load Class**  
**12 Months Ended December 31, 2010 Forecast**  
(Dollars in 000 \$)

Line	Description	(A) Total	(B) Residential (sec)	(C) General Service - Schedule 23 (sec)	(D) 15+ kW (sec)	(E) Primary (pri)	(F) 0-50 kW (sec)	(G) 51-100 kW (sec)	(H) General Power - Schedule 28 > 101kW (sec)	(I) Primary (pri)	(J) 0-300 kW (sec)	(K) 301+ kW (sec)	(L) Primary (pri)	(M) 1 - 4 MW (sec)	(N) 1 - 4 M (pri)	(O) Large Power Service - Schedule 48T > 4 MW (sec)	(P) > 4 M (pri)	(O) Trans (trn)	(R) Irrg (sec)	(S) Irrg KWUA (sec)	(S) Sch 51.53.54 Streetlighting (sec)
1	Generation	\$161,795	\$73,417	\$6,521	\$5,949	\$15	\$5,886	\$9,641	\$12,021	\$238	\$2,603	\$13,514	\$1,145	\$7,499	\$4,840	\$571	\$12,603	\$3,615	\$1,717	\$1,481	\$1,595
2	Transmission	\$163,662	\$74,265	\$6,597	\$6,017	\$15	\$5,954	\$9,752	\$12,160	\$240	\$2,633	\$13,670	\$1,158	\$7,586	\$4,896	\$578	\$12,748	\$3,657	\$1,736	\$1,498	\$1,704
3	Distribution	\$43,918	\$27,466	\$2,083	\$1,832	\$4	\$1,177	\$1,929	\$2,521	\$49	\$584	\$3,042	\$257	\$1,143	\$726	\$8	\$143	\$0	\$953	\$973	\$3,714
4	Poles	\$73,160	\$44,797	\$3,361	\$2,957	\$8	\$2,072	\$3,363	\$4,436	\$86	\$1,015	\$5,291	\$448	\$2,193	\$1,391	\$19	\$306	\$0	\$1,387	\$1,410	\$3,714
5	Conductor	\$53,934	\$28,171	\$1,979	\$1,741	\$4	\$1,738	\$2,846	\$3,720	\$72	\$810	\$4,221	\$357	\$2,323	\$1,474	\$168	\$3,884	\$0	\$426	\$368	\$3,714
6	Substations	\$171,013	\$100,434	\$7,422	\$6,529	\$17	\$4,987	\$8,168	\$10,677	\$207	\$2,410	\$12,554	\$1,062	\$5,659	\$3,590	\$195	\$4,333	\$0	\$2,766	\$2,751	\$3,714
7	Subtotal: Pole, Cond, Subs	\$6,988	\$4,040	\$592	\$238	\$0	\$237	\$344	\$437	\$0	\$0	\$423	\$0	\$313	\$0	\$39	\$241	\$0	\$241	\$181	\$3,714
8	Transformers	\$177,961	\$104,474	\$6,014	\$6,768	\$17	\$5,224	\$6,513	\$11,114	\$207	\$2,500	\$12,977	\$1,062	\$5,972	\$3,590	\$235	\$4,333	\$0	\$2,980	\$2,935	\$3,714
9	Distribution subtotal	\$503,438	\$252,156	\$21,132	\$18,734	\$47	\$17,064	\$27,906	\$35,295	\$685	\$7,736	\$40,161	\$3,365	\$21,057	\$13,326	\$1,384	\$29,684	\$7,272	\$6,433	\$5,914	\$3,714
10	Total Demand Related (Lines 1+2+9)	\$766,783	\$330,631	\$35,432	\$26,170	\$68	\$26,275	\$40,900	\$56,104	\$1,075	\$12,544	\$65,598	\$5,535	\$36,175	\$24,439	\$3,305	\$69,247	\$23,370	\$8,320	\$7,180	\$1,595
11	Energy Related Marginal Cost	\$52,473	\$22,626	\$2,425	\$1,791	\$5	\$1,798	\$2,799	\$3,839	\$74	\$858	\$4,489	\$379	\$2,476	\$1,672	\$226	\$4,739	\$1,599	\$569	\$491	\$1,09
12	Transmission Energy Related	\$819,256	\$353,257	\$37,857	\$27,961	\$73	\$28,074	\$43,699	\$59,943	\$1,149	\$13,402	\$70,087	\$5,914	\$38,650	\$26,111	\$3,632	\$73,986	\$24,969	\$8,890	\$7,671	\$1,704
13	Total Energy	\$61,601	\$47,136	\$7,297	\$1,058	\$4	\$216	\$170	\$88	\$3	\$14	\$33	\$3	\$1	\$1	\$0	\$0	\$0	\$1,853	\$789	\$3,714
14	Customer Related Marginal Cost	\$23,235	\$18,881	\$2,922	\$423	\$1	\$87	\$68	\$39	\$1	\$5	\$14	\$3	\$1	\$0	\$0	\$0	\$0	\$742	\$317	\$107
15	Poles	\$68,657	\$35,458	\$4,648	\$4,284	\$0	\$3,090	\$2,830	\$1,794	\$0	\$246	\$613	\$0	\$129	\$0	\$3	\$0	\$0	\$5,454	\$2,153	\$47
16	Transformers	\$45,223	\$33,849	\$5,887	\$2,042	\$0	\$1,018	\$834	\$1,060	\$0	\$120	\$298	\$0	\$113	\$0	\$1	\$0	\$0	\$0	\$0	\$0
17	Service Drops	\$10,510	\$7,428	\$1,187	\$356	\$41	\$165	\$164	\$422	\$60	\$48	\$120	\$62	\$32	\$67	\$1	\$41	\$86	\$228	\$93	\$2
18	Meters	\$8,321	\$6,698	\$1,122	\$163	\$1	\$75	\$59	\$34	\$1	\$17	\$43	\$4	\$14	\$6	\$0	\$4	\$0	\$28	\$20	\$2
19	Meter Reading	\$18,233	\$15,442	\$1,971	\$286	\$1	\$146	\$115	\$66	\$2	\$7	\$19	\$2	\$29	\$13	\$0	\$8	\$0	\$94	\$25	\$31
20	Billing & Collections	\$5,740	\$4,855	\$1,122	\$26	\$0	\$113	\$89	\$51	\$1	\$41	\$103	\$9	\$134	\$62	\$2	\$38	\$2	\$32	\$7	\$0
21	Uncollectables	\$7,310	\$6,134	\$783	\$114	\$0	\$67	\$53	\$31	\$1	\$9	\$23	\$2	\$22	\$10	\$0	\$6	\$0	\$42	\$11	\$12
22	Customer Service / Other	\$248,830	\$175,881	\$35,632	\$9,115	\$46	\$4,979	\$4,362	\$3,596	\$68	\$509	\$1,265	\$84	\$476	\$161	\$8	\$97	\$69	\$8,523	\$3,416	\$3,915
23	Total Commitment & Billing Rel.	\$928,578	\$404,048	\$41,953	\$32,119	\$83	\$32,161	\$50,541	\$68,125	\$1,313	\$15,147	\$79,112	\$6,680	\$43,674	\$23,279	\$3,876	\$81,850	\$26,985	\$10,037	\$8,661	\$1,595
24	Generation	\$216,135	\$96,891	\$9,022	\$7,808	\$20	\$7,752	\$12,551	\$15,999	\$314	\$3,491	\$18,159	\$1,537	\$10,062	\$6,568	\$804	\$17,487	\$5,256	\$2,305	\$1,989	\$109
25	Transmission	\$376,699	\$239,798	\$38,406	\$14,939	\$22	\$9,635	\$12,415	\$14,106	\$211	\$2,885	\$13,934	\$1,067	\$6,217	\$3,592	\$239	\$4,333	\$0	\$11,029	\$6,195	\$3,871
26	Distribution	\$18,233	\$15,442	\$1,971	\$286	\$1	\$146	\$115	\$66	\$2	\$7	\$19	\$2	\$29	\$13	\$0	\$8	\$0	\$94	\$25	\$31
27	Customer - Billing	\$18,829	\$14,127	\$2,309	\$519	\$41	\$241	\$223	\$457	\$61	\$66	\$163	\$66	\$46	\$74	\$1	\$45	\$86	\$304	\$113	\$2
28	Customer - Metering	\$7,310	\$6,134	\$783	\$114	\$0	\$67	\$53	\$31	\$1	\$9	\$23	\$2	\$22	\$10	\$0	\$6	\$0	\$42	\$11	\$12
29	Customer - Other	\$1,565,784	\$776,439	\$94,445	\$65,784	\$167	\$50,003	\$75,898	\$98,783	\$1,901	\$21,606	\$111,410	\$9,353	\$60,049	\$39,536	\$4,921	\$103,729	\$32,328	\$23,811	\$16,894	\$5,619
30	Revenue (less Uncollectables)	\$5,740	\$4,855	\$1,122	\$26	\$0	\$113	\$89	\$51	\$1	\$41	\$103	\$9	\$134	\$62	\$2	\$38	\$2	\$35	\$7	\$0
31	Customer - Uncollectables	\$1,571,524	\$781,295	\$94,621	\$65,810	\$167	\$50,116	\$75,987	\$98,835	\$1,903	\$21,647	\$111,513	\$9,363	\$60,184	\$39,598	\$4,923	\$103,767	\$32,330	\$23,846	\$17,001	\$5,619
32	Total Revenue																				





Docket No. UE-210  
Exhibit PPL/917  
Witness: C. Craig Paice

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of C. Craig Paice  
Unbundled Revenue Requirement Allocation by Rate Schedule**

**August 2009**

**PACIFICORP**  
**STATE OF OREGON**  
**Combined GRC and TAM**  
**December 31, 2010 Unbundled Revenue Requirement Allocation by Rate Schedule**

Line	Description	(A) Residential (sec)	(B) General Service Sch 23 (pri)	(C) General Service Sch 23 (pri)	(D) General Service Sch 28 (sec)	(E) General Service Sch 28 (pri)	(F) General Service Sch 30 (sec)	(G) General Service Sch 30 (pri)	(H) Large Power Service Sch 48T (sec)	(I) Large Power Service Sch 48T (pri)	(J) (tm)	(K) Irrigation Sch 41	(L) Street Lgt. Sch 51, 53, 54
1	<b>Total Operating Revenues</b>	\$915,181	\$90,790	\$99	\$124,369	\$1,123	\$73,370	\$5,318	\$35,927	\$77,376	\$17,402	\$14,323	\$3,489
2	<b>MWH</b>	12,680,407	1,012,789	1,152	2,026,816	18,249	\$1,284,715	93,931	649,091	1,589,921	404,889	136,792	\$26,217
3													
4	<b>Functionalized 20 Year Full Marginal Costs - Class \$</b>	\$928,578	\$74,072	\$83	\$150,827	\$1,313	\$94,259	\$6,680	\$47,550	\$111,129	\$26,985	\$10,037	\$1,595
5	Generation	\$216,135	\$16,830	\$20	\$36,302	\$314	\$21,650	\$1,537	\$10,866	\$24,055	\$5,256	\$2,305	\$109
6	Transmission	\$376,699	\$53,345	\$22	\$36,157	\$211	\$16,819	\$1,067	\$6,456	\$7,925	\$0	\$11,029	\$3,871
7	Customer - Billing	\$18,233	\$2,257	\$1	\$328	\$2	\$26	\$2	\$29	\$21	\$0	\$94	\$31
8	Customer - Metering	\$18,829	\$2,829	\$41	\$920	\$61	\$229	\$66	\$46	\$118	\$86	\$304	\$2
9	Customer - Other	\$7,310	\$897	\$0	\$151	\$1	\$33	\$2	\$23	\$16	\$0	\$42	\$12
10	Total	\$1,565,784	\$150,229	\$167	\$224,685	\$1,901	\$133,016	\$9,353	\$64,970	\$143,265	\$32,328	\$23,811	\$5,619
11													
12													
13	<b>Functional Revenue Requirement Allocation Factor:</b>												
14	<b>Functionalized 20 Year Full Marginal Costs - Class % of Total</b>	100.00%	7.98%	0.01%	16.24%	0.14%	10.15%	0.72%	5.12%	11.97%	2.91%	1.08%	0.17%
15	Generation	44.83%	7.79%	0.01%	16.80%	0.15%	10.02%	0.71%	5.03%	11.13%	2.43%	1.07%	0.05%
16	Transmission	63.66%	14.16%	0.01%	9.60%	0.06%	4.46%	0.28%	1.71%	2.10%	0.00%	2.93%	1.03%
17	Distribution	43.51%	7.98%	0.01%	16.24%	0.14%	10.15%	0.72%	5.12%	11.97%	2.91%	1.08%	0.17%
18	Ancillary Service	84.69%	12.38%	0.01%	1.80%	0.01%	0.14%	0.01%	0.16%	0.12%	0.00%	0.51%	0.17%
19	Customer - Billing	75.03%	15.02%	0.22%	4.89%	0.32%	1.22%	0.35%	0.25%	0.63%	0.46%	1.62%	0.01%
20	Customer - Metering	83.90%	12.27%	0.01%	2.06%	0.01%	0.45%	0.03%	0.31%	0.23%	0.01%	0.57%	0.16%
21	Customer - Other	42.87%	7.99%	0.01%	15.98%	0.14%	10.13%	0.74%	5.12%	12.54%	3.19%	1.08%	0.21%
22	Embedded DSM - (mWh)	51.53%	9.92%	0.01%	13.59%	0.12%	8.02%	0.58%	3.93%	8.45%	1.90%	1.57%	0.38%
23	Regulatory & Franchise												
24	Taxes (Revenue)												
25													
26	<b>Functionalized Class Revenue Requirement - (Target)</b>	\$605,406	\$48,293	\$54	\$98,335	\$856	\$61,454	\$4,355	\$31,002	\$72,453	\$17,593	\$6,544	\$1,040
27	Generation	\$79,096	\$6,159	\$7	\$13,285	\$115	\$7,923	\$562	\$3,976	\$8,803	\$1,924	\$844	\$40
28	Transmission	\$243,782	\$34,522	\$14	\$23,399	\$137	\$10,884	\$690	\$4,178	\$5,128	\$0	\$7,137	\$2,505
29	Distribution	\$10,767	\$859	\$1	\$1,749	\$15	\$1,093	\$77	\$551	\$1,288	\$313	\$116	\$18
30	Ancillary Services	\$9,407	\$1,375	\$1	\$200	\$1	\$16	\$96	\$18	\$13	\$0	\$57	\$19
31	Customer - Billing	\$20,394	\$4,083	\$60	\$1,328	\$88	\$330	\$96	\$67	\$171	\$124	\$439	\$3
32	Customer - Metering	\$12,657	\$1,552	\$1	\$261	\$1	\$57	\$4	\$39	\$29	\$72	\$21	\$21
33	Customer - Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
34	Embedded DSM - (mWh)	\$23,662	\$2,347	\$3	\$3,216	\$29	\$1,897	\$138	\$929	\$2,001	\$450	\$370	\$90
35	Regulatory & Franchise T	\$1,013,658	\$99,191	\$140	\$141,773	\$1,242	\$83,654	\$5,923	\$40,760	\$89,886	\$20,404	\$15,580	\$3,735
36	Total	90.29%	91.53%	70.80%	87.72%	90.45%	87.71%	89.79%	88.14%	86.08%	85.28%	91.93%	93.40%
37	<b>Ratio of Operating Revn to Revenue Requirement-(Target)</b>												
38	(Line 1 / Line 36)												
39													
40													
41	<b>Increase or (Decrease)</b>	\$98,477	\$8,401	\$41	\$17,403	\$119	\$10,284	\$605	\$4,833	\$12,510	\$3,003	\$1,257	\$247
42	(Line 36 - Line 1)												
43													
44													
45	<b>Percent Increase (Decrease)</b>	10.76%	9.25%	41.25%	13.99%	10.55%	14.02%	11.37%	13.45%	16.17%	17.26%	8.77%	7.07%
46	(Line 41 / Line 1)												

**PACIFICORP**  
**STATE OF OREGON**  
**Combined GRC and TAM**  
**Oregon Marginal Cost Study**  
**December 31, 2010 Functionalized Revenue - Earned**  
**(\$ 000 )**

Line No.	Description	A	B	C	D	E	F	G	H	I	J
		Generation	Transmission	Distribution	Ancillary	Billing	Metering	Other	DSM	Franchise Fees	Total
1	Earned Functional Revenue Requirement	\$575,596	\$65,111	\$223,883	\$11,174	\$11,245	\$27,169	\$12,929	\$0	22,233	\$949,341
2											
3	Percent of Total	60.63%	6.86%	23.58%	1.18%	1.18%	2.86%	1.36%	0.00%	2.34%	100.00%
4											
5	Revenue From Classes Included in MC Study	\$554,885	\$62,768	\$215,827	\$10,772	\$10,840	\$26,191	\$12,464	\$0	\$21,433	\$915,181
6											
7	Other Revenues										
8	Partial Requirements - Sch. 47 pri										\$18,498
9	Partial Requirements - Sch. 47 trn										\$7,223
10	USBR Billed Revenue										\$3,839
11	AGA										\$2,380
12	Lighting										\$2,617
13	Employee Discount										(\$396)
14	Total Oregon Situs Revenue										\$949,341

**PACIFICORP**  
**STATE OF OREGON**  
**Combined GRC and TAM**  
**Oregon Marginal Cost Study**  
**December 31, 2010 Functionalized Revenue - Target**  
**(\$ 000 )**

Line No.	Description	A	B	C	D	E	F	G	H	I	J
		Generation	Transmission	Distribution	Ancillary	C Billing	C Metering	C Other	DSM	Franchise Fees	Total
1	Target Functional Revenue Requirement	628,341	82,092	253,017	11,174	11,528	28,212	13,136	0	24,558	\$1,052,059
2	Percent of Total	59.72%	7.80%	24.05%	1.06%	1.10%	2.68%	1.25%	0.00%	2.33%	100.00%
3	Revenue From Classes Included in MC Study	\$605,406	\$79,096	\$243,782	\$10,767	\$11,107	\$27,183	\$12,657	\$0	\$23,662	\$1,013,658
4											Increase 98,477
5	Other Revenues										102,718
6	Partial Requirements - Sch. 47 pri										\$21,510
7	Partial Requirements - Sch. 47 trn										\$8,426
8	USBR Billed Revenue										\$3,665
9	AGA										\$2,380
10	Lighting										\$2,850
11	Employee Discount										(\$33)
12	Total Oregon Situs Revenue										\$1,052,059
13											98,477
14											



Docket No. UE-210  
Exhibit PPL/918  
Witness: C. Craig Paice

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of C. Craig Paice**

**Functional JAM**

**August 2009**



REVISED PROTOCOL  
Year End  
RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL Description of Account Summary:	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C. Billing	C. Metering	C. Service
General Business Revenues	949,341,303	575,596,122	65,110,984	246,116,498	11,174,486	11,245,101	27,169,088	12,929,025
General Business Revenues	-	-	-	-	-	-	-	-
Interdepartmental	-	-	-	-	-	-	-	-
4 Special Sales	186,446,628	148,294,143	38,152,485	-	-	-	-	-
5 Other Operating Revenues	42,876,160	24,677,064	20,913,916	3,829,688	(11,174,486)	4,615,089	11,832	3,057
6 Total Operating Revenues	1,178,664,091	748,567,329	124,177,385	249,946,185	0	15,860,190	27,180,920	12,932,082
7								
8 Operating Expenses:								
9 Steam Production	250,559,290	250,559,290	-	-	-	-	-	-
10 Nuclear Production	-	-	-	-	-	-	-	-
11 Hydro Production	9,911,805	9,911,805	-	-	-	-	-	-
12 Other Power Supply	261,435,192	261,435,192	-	-	-	-	-	-
13 Transmission	52,555,833	227,849	52,327,985	-	-	-	-	-
14 Distribution	70,710,593	-	-	65,959,265	-	-	4,751,328	-
15 Customer Accounts	31,710,902	3,203,339	531,391	1,069,593	0	10,454,727	10,493,813	5,958,039
16 Customer Service	3,695,469	-	-	1,198,841	-	-	-	2,496,628
17 Sales	-	-	-	-	-	-	-	-
18 Administrative & General	49,670,470	18,650,096	4,739,965	19,576,953	-	1,857,343	3,178,446	1,667,667
19								
20 Total O & M Expenses	730,249,555	543,987,570	57,599,341	87,804,653	0	12,312,070	18,423,587	10,122,334
21								
22 Depreciation	147,845,235	74,721,230	19,263,620	50,682,215	-	240,694	2,686,782	250,695
23 Amortization Expense	16,476,351	8,613,341	999,828	3,245,748	-	1,511,417	1,158,825	947,191
24 Taxes Other Than Income	51,966,873	14,760,151	4,645,773	31,733,906	0	202,475	486,446	138,122
25 Income Taxes - Federal	23,758,403	(373,894)	5,939,691	14,240,198	0	912,729	2,067,334	972,345
26 Income Taxes - State	4,838,128	1,616,129	793,032	1,901,266	0	121,862	276,018	129,822
27 Income Taxes - Def Net	17,114,105	8,669,451	3,138,265	5,172,757	-	28,296	122,508	(17,174)
28 Investment Tax Credit Adj.	-	-	-	-	-	-	-	-
29 Misc Revenue & Expense	(2,076,505)	(2,457,569)	(84,959)	465,280	-	-	742	-
30								
31 Total Operating Expenses	990,172,144	649,536,409	92,294,591	195,246,024	0	15,329,543	25,222,242	12,543,335
32								
33 Operating Revenue for Return	188,491,947	99,030,920	31,882,794	54,700,162	0	530,647	1,958,677	388,747
34								
35 Rate Base:								
36 Electric Plant in Service	5,543,234,819	2,662,161,725	897,899,724	1,837,922,900	-	34,630,374	87,906,695	22,713,401
37 Plant Held for Future Use	(0)	2,398,305	(2,398,306)	-	-	-	-	-
38 Misc Deferred Debits	20,133,708	8,370,921	11,029,863	336,614	-	96,053	186,184	114,072
39 Elec Plant Acq Adj	18,568,147	18,568,147	-	-	-	-	-	-
40 Nuclear Fuel	-	-	-	-	-	-	-	-
41 Prepayments	12,201,019	5,616,099	737,339	3,635,698	-	579,668	1,043,103	589,111
42 Fuel Stock	41,007,740	41,007,740	-	-	-	-	-	-
43 Material & Supplies	49,319,573	39,619,002	3,331,669	6,152,974	-	-	215,928	-
44 Working Capital	12,584,036	6,967,567	1,167,055	3,103,098	0	373,525	627,912	344,880
45 Weatherization Loans	(696)	-	-	(696)	-	-	-	-
46 Miscellaneous Rate Base	1,206,251	1,206,251	-	-	-	-	-	-
47								
48 Total Electric Plant	5,698,254,596	2,785,915,758	911,767,344	1,851,150,587	0	35,679,620	89,979,822	23,761,465
49								
50 Rate Base Deductions:								
51 Accum Prov For Depr	(2,041,168,235)	(917,607,943)	(317,172,989)	(767,605,245)	-	(2,546,282)	(34,554,054)	(1,681,723)
52 Accum Prov For Amort	(141,105,146)	(43,526,226)	(5,100,942)	(42,868,870)	-	(21,822,835)	(14,784,447)	(13,001,826)
53 Accum Def Income Taxes	(551,004,650)	(265,043,883)	(90,328,433)	(182,196,552)	-	(2,339,965)	(8,789,682)	(2,306,135)
54 Unamortized ITC	(4,172,305)	(1,686,630)	(200,801)	(1,418,610)	-	(227,033)	(408,458)	(230,773)
55 Customer Adv for Const	(3,499,244)	-	(1,906,223)	(1,536,895)	-	-	(56,126)	-
56 Customer Service Deposits	-	-	-	-	-	-	-	-
57 Misc. Rate Base Deductions	(21,182,496)	(15,455,118)	(422,474)	(3,464,798)	-	(477,665)	(876,907)	(485,534)
58								
59 Total Rate Base Deductions	(2,762,132,076)	(1,243,319,800)	(415,131,862)	(999,090,970)	-	(27,413,780)	(59,469,674)	(17,705,990)
60								
61 Total Rate Base	2,936,122,520	1,542,595,958	496,635,482	852,059,617	1	8,265,839	30,510,148	6,055,475
62								
63 Return on Rate Base	6.420%	6.420%	6.420%	6.420%	6.418%	6.420%	6.420%	6.420%
64								
65 Return on Equity	6.865%	6.865%	6.865%	6.865%	6.862%	6.865%	6.865%	6.865%
66								
67 100 Basis Points in Equity:	14,974,225	7,867,239	2,532,841	4,345,504	0	42,156	155,602	30,883
68 Revenue Requirement Impact	24,132,903	12,679,075	4,082,001	7,003,343	0	67,940	250,772	49,772
69 Rate Base Decrease	(216,085,841)	(113,528,350)	(36,550,210)	(62,707,880)	(0)	(608,330)	(2,245,414)	(445,657)



RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC	ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C Billing	C Metering	C Service
70		Sales to Ultimate Customers										
71	440	Residential Sales				0	0	0	0	0	0	0
72			S		471,582,657	575,596,122	65,110,984	246,116,498	11,174,486	11,245,101	27,169,088	12,929,025
73												
74					471,582,657							
75												
76	442	Commercial & Industrial Sales										
77			S		473,034,023							
78			P		-	-	-	-	-	-	-	-
79			PT		-	-	-	-	-	-	-	-
80												
81												
82					473,034,023							
83												
84	444	Public Street & Highway Lighting										
85			S		4,724,623							
86			SO		-	-	-	-	-	-	-	-
87					4,724,623							
88												
89	445	Other Sales to Public Authority										
90			S		-	-	-	-	-	-	-	-
91												
92												
93												
94	448	Interdepartmental										
95			D_SPLIT	S	-	-	-	-	-	-	-	-
96			GP	SO	-	-	-	-	-	-	-	-
97												
98												
99		Total Sales to Ultimate Customers			949,341,303	575,596,122	65,110,984	246,116,498	11,174,486	11,245,101	27,169,088	12,929,025
100												
101												
102												
103	447	Sales for Resale-Non NPC										
104			WSF	S	963,190	766,093	197,097	-	-	-	-	-
105					963,190	766,093	197,097	-	-	-	-	-
106												
107	447NPC	Sales for Resale-NPC										
108			WSF	SG	185,483,438	147,528,050	37,955,388	-	-	-	-	-
109			WSF	SE	0	0	0	-	-	-	-	-
110			WSF	SG	-	-	-	-	-	-	-	-
111					185,483,438	147,528,050	37,955,388	-	-	-	-	-
112												
113		Total Sales for Resale			186,446,628	148,294,143	38,152,485	-	-	-	-	-
114												
115	449	Provision for Rate Refund										
116			WSF	S	-	-	-	-	-	-	-	-
117			WSF	SG	-	-	-	-	-	-	-	-
118												
119												
120												
121		Total Sales from Electricity			1,135,787,931	723,890,265	103,263,469	246,116,498	11,174,486	11,245,101	27,169,088	12,929,025
122												
123	450	Forfeited Discounts & Interest										
124			CUST	S	2,699,352	-	-	-	-	2,699,352	-	-
125			CUST	SO	-	-	-	-	-	-	-	-
126					2,699,352	-	-	-	-	2,699,352	-	-
127												
128	451	Misc Electric Revenue										
129			CUST	S	1,911,077	-	-	-	-	1,911,077	-	-
130			GP	SG	-	-	-	-	-	-	-	-
131			DSM	SO	3,821	-	-	3,821	-	-	-	-
132					1,914,898	-	-	3,821	-	1,911,077	-	-
133												
134	453	Water Sales										
135			P	SG	22,169	22,169	-	-	-	-	-	-
136					22,169	22,169	-	-	-	-	-	-
137												
138	454	Rent of Electric Property										
139			D	S	5,808,234	-	-	5,808,234	-	-	-	-
140			T	SG	1,461,653	-	1,461,653	-	-	-	-	-
141			GP	SO	746,078	358,307	120,851	247,370.58	-	4,661	11,831.58	3,057
142					8,015,965	358,307	1,582,504	6,055,605	-	4,661	11,832	3,057
143												
144		Oregon Ancillary Services				11,174,486			(11,174,486)			
145												
146	456	Other Electric Revenue										
147			D	S	(2,230,667)	-	-	(2,230,667)	-	-	-	-
148			CUST	CN	-	-	-	-	-	-	-	-
149			OTHSE	SE	4,088,267	706	4,087,561	-	-	-	-	-
150			OTHSO	SO	929	0	0	929	-	-	-	-
151			OTHSGR	SG	28,365,247	13,121,397	15,243,851	-	-	-	-	-
152												
153												
154					30,223,776	13,122,103	19,331,412	(2,229,738)	-	-	-	-
155												
156		Total Other Electric Revenues			42,876,160	24,677,064	20,913,916	3,829,688	(11,174,486)	4,616,089	11,832	3,057
157												
158		Total Electric Operating Revenues			1,178,664,091	748,567,329	124,177,385	249,946,185	0	15,860,190	27,180,920	12,932,082

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C_Billing	C_Metering	C_Service	
159	Summary of Revenues by Factor											
160	S			958,492,488	576,362,215	65,308,081	249,694,065	11,174,486	15,855,529	27,169,088	12,929,025	
162	CN			-	-	-	-	-	-	-	-	
163	SE			4,088,267	706	4,087,561	-	-	-	-	-	
	SO			750,828	358,307	120,851	252,121	-	4,661	11,832	3,057	
	SG			215,332,508	160,649,446	54,660,892	-	-	-	-	-	
	DGP			-	-	-	-	-	-	-	-	
167	Total Electric Operating Revenues											
168				1,178,664,091	737,370,674	124,177,385	249,946,185	11,174,486	15,860,190	27,180,920	12,932,082	
169	Miscellaneous Revenues											
170	41160	Gain on Sale of Utility Plant - CR										
171		D	S	-	-	-	-	-	-	-	-	
172		T	SG	-	-	-	-	-	-	-	-	
173		G	SO	-	-	-	-	-	-	-	-	
174		T	SG	-	-	-	-	-	-	-	-	
175		P	SG	-	-	-	-	-	-	-	-	
176				-	-	-	-	-	-	-	-	
177				-	-	-	-	-	-	-	-	
178	41170	Loss on Sale of Utility Plant										
179		D_SPLIT	S	-	-	-	-	-	-	-	-	
180		T	SG	-	-	-	-	-	-	-	-	
181				-	-	-	-	-	-	-	-	
182				-	-	-	-	-	-	-	-	
183	4118	Gain from Emission Allowances										
184		P	S	-	-	-	-	-	-	-	-	
185		P	SE	(2,080,448)	(2,080,448)	-	-	-	-	-	-	
186				(2,080,448)	(2,080,448)	-	-	-	-	-	-	
187				-	-	-	-	-	-	-	-	
188	41181	Gain from Disposition of NOX Credits										
189		P	SE	-	-	-	-	-	-	-	-	
190				-	-	-	-	-	-	-	-	
191				-	-	-	-	-	-	-	-	
192	4194	Impact Housing Interest Income										
193		P	SG	-	-	-	-	-	-	-	-	
194				-	-	-	-	-	-	-	-	
195				-	-	-	-	-	-	-	-	
196	421	(Gain) / Loss on Sale of Utility Plant										
197		D	S	444,952	-	-	444,952	-	-	-	-	
198		T	SG	-	-	-	-	-	-	-	-	
199		T	SG	(95,809)	-	(95,809)	-	-	-	-	-	
200		P	CN	207	207,1329307	-	-	-	-	-	-	
201		PTD	SO	61,528	29,607	10,849	20,328.70	-	-	742.36	-	
202		P	SG	(406,936)	(406,936)	-	-	-	-	-	-	
203				3,942	(377,121)	(84,959)	465,280	-	-	742	-	
204				-	-	-	-	-	-	-	-	
205				-	-	-	-	-	-	-	-	
206				-	-	-	-	-	-	-	-	
207	4311	Interest on Customer Deposits										
		CUST	S	-	-	-	-	-	-	-	-	
				-	-	-	-	-	-	-	-	
210				-	-	-	-	-	-	-	-	
211				-	-	-	-	-	-	-	-	
212				-	-	-	-	-	-	-	-	
213				-	-	-	-	-	-	-	-	
214	500	Operation Supervision & Engineering										
215		P	SG	5,739,991	5,739,991	-	-	-	-	-	-	
216		P	SSGCH	380,069	380,069	-	-	-	-	-	-	
217				6,120,059	6,120,059	-	-	-	-	-	-	
218				-	-	-	-	-	-	-	-	
219	501	Fuel Related-Non NPC										
220		P	SE	3,561,573	3,561,573	-	-	-	-	-	-	
221		P	SE	-	-	-	-	-	-	-	-	
222		P	SE	-	-	-	-	-	-	-	-	
223		P	SSECT	-	-	-	-	-	-	-	-	
224		P	SSECH	446,551	446,551	-	-	-	-	-	-	
225				4,008,124	4,008,124	-	-	-	-	-	-	
226				-	-	-	-	-	-	-	-	
227	501NPC	Fuel Related-NPC										
228		P	SE	154,873,739	154,873,739	-	-	-	-	-	-	
229		P	SE	-	-	-	-	-	-	-	-	
230		P	SE	-	-	-	-	-	-	-	-	
231		P	SSECT	-	-	-	-	-	-	-	-	
232		P	SSECH	14,027,286	14,027,286	-	-	-	-	-	-	
233				168,901,025	168,901,025	-	-	-	-	-	-	
234				-	-	-	-	-	-	-	-	
235				-	-	-	-	-	-	-	-	
236				-	-	-	-	-	-	-	-	
237	502	Steam Expenses										
238		P	SG	9,104,859	9,104,859	-	-	-	-	-	-	
239		P	SSGCH	822,522	822,522	-	-	-	-	-	-	
240				9,927,382	9,927,382	-	-	-	-	-	-	
241				-	-	-	-	-	-	-	-	
242	503	Steam From Other Sources-Non-NPC										
243		P	SE	326	326	-	-	-	-	-	-	
244				326	326	-	-	-	-	-	-	
245				-	-	-	-	-	-	-	-	
246	503NPC	Steam From Other Sources-NPC										
247		P	SE	874,566	874,566	-	-	-	-	-	-	
248				874,566	874,566	-	-	-	-	-	-	
249				-	-	-	-	-	-	-	-	
250	505	Electric Expenses										
251		P	SG	778,003	778,003	-	-	-	-	-	-	
252		P	SSGCH	412,404	412,404	-	-	-	-	-	-	
253				1,190,407	1,190,407	-	-	-	-	-	-	
254				-	-	-	-	-	-	-	-	
255	506	Misc. Steam Expense										
256		P	SG	11,702,141	11,702,141	-	-	-	-	-	-	
257		P	SE	-	-	-	-	-	-	-	-	
258		P	SSGCH	531,004	531,004	-	-	-	-	-	-	
259				12,233,145	12,233,145	-	-	-	-	-	-	

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON									
				Normalized	Production	Transmission	Distribution	Ancillary	C. Billing	C. Metering	C. Service		
255	506	Misc. Steam Expense											
256		P	SG	11,702,141	11,702,141	-	-	-	-	-	-	-	-
257		P	SE	-	-	-	-	-	-	-	-	-	-
258		P	SSGCH	531,004	531,004	-	-	-	-	-	-	-	-
259				12,233,145	12,233,145	-	-	-	-	-	-	-	-
260													
261	507	Rents											
262		P	SG	184,337	184,337	-	-	-	-	-	-	-	-
263		P	SSGCH	1,674	1,674	-	-	-	-	-	-	-	-
264				186,011	186,011	-	-	-	-	-	-	-	-
265													
266	510	Maint Supervision & Engineering											
267		P	SG	4,990,858	4,990,858	-	-	-	-	-	-	-	-
268		P	SSGCH	514,747	514,747	-	-	-	-	-	-	-	-
269				5,505,605	5,505,605	-	-	-	-	-	-	-	-
270													
271													
272													
273	511	Maintenance of Structures											
274		P	SG	6,543,416	6,543,416	-	-	-	-	-	-	-	-
275		P	SSGCH	303,016	303,016	-	-	-	-	-	-	-	-
276				6,846,432	6,846,432	-	-	-	-	-	-	-	-
277													
278	512	Maintenance of Boiler Plant											
279		P	SG	21,503,712	21,503,712	-	-	-	-	-	-	-	-
280		P	SSGCH	1,603,631	1,603,631	-	-	-	-	-	-	-	-
281				23,107,342	23,107,342	-	-	-	-	-	-	-	-
282													
283	513	Maintenance of Electric Plant											
284		P	SG	6,861,205	6,861,205	-	-	-	-	-	-	-	-
285		P	SSGCH	1,027,582	1,027,582	-	-	-	-	-	-	-	-
286				7,888,787	7,888,787	-	-	-	-	-	-	-	-
287													
288	514	Maintenance of Misc. Steam Plant											
289		P	SG	2,622,105	2,622,105	-	-	-	-	-	-	-	-
290		P	SSGCH	1,147,972	1,147,972	-	-	-	-	-	-	-	-
291				3,770,078	3,770,078	-	-	-	-	-	-	-	-
292													
293													
294													
295	517	Operation Super & Engineering											
296		P	SG	-	-	-	-	-	-	-	-	-	-
297													
298	518	Nuclear Fuel Expense											
299		P	SE	-	-	-	-	-	-	-	-	-	-
300													
301													
302													
303	519	Coolants and Water											
304		P	SG	-	-	-	-	-	-	-	-	-	-
305													
306													
307	520	Steam Expenses											
308		P	SG	-	-	-	-	-	-	-	-	-	-
309													
310													
311													
312													
313	523	Electric Expenses											
314		P	SG	-	-	-	-	-	-	-	-	-	-
315													
316													
317	524	Misc. Nuclear Expenses											
318		P	SG	-	-	-	-	-	-	-	-	-	-
319													
320													
321	528	Maintenance Super & Engineering											
322		P	SG	-	-	-	-	-	-	-	-	-	-
323													
324													
325	529	Maintenance of Structures											
326		P	SG	-	-	-	-	-	-	-	-	-	-
327													
328													
329	530	Maintenance of Reactor Plant											
330		P	SG	-	-	-	-	-	-	-	-	-	-
331													
332													
333	531	Maintenance of Electric Plant											
334		P	SG	-	-	-	-	-	-	-	-	-	-
335													
336													
337	532	Maintenance of Misc Nuclear											
338		P	SG	-	-	-	-	-	-	-	-	-	-
339													
340													
341													
342													
343	535	Operation Super & Engineering											
344		P	DGP	-	-	-	-	-	-	-	-	-	-
345		P	SG	2,139,741	2,139,741	-	-	-	-	-	-	-	-
346		P	SG	219,168	219,168	-	-	-	-	-	-	-	-
347													
348				2,358,909	2,358,909	-	-	-	-	-	-	-	-
349													

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C Billing	C Metering	C Service	
350	536	Water For Power										
351			P	DGP	-	-	-	-	-	-	-	
352			P	SG	66,075	66,075	-	-	-	-	-	
353			P	SG	2,420	2,420	-	-	-	-	-	
354												
355					68,495	68,495	-	-	-	-	-	
356												
357	537	Hydraulic Expenses										
358			P	DGP	-	-	-	-	-	-	-	
359			P	SG	962,358	962,358	-	-	-	-	-	
360			P	SG	106,880	106,880	-	-	-	-	-	
361												
362					1,069,238	1,069,238	-	-	-	-	-	
363												
364	538	Electric Expenses										
365			P	DGP	-	-	-	-	-	-	-	
366			P	SG	-	-	-	-	-	-	-	
367			P	SG	-	-	-	-	-	-	-	
368												
369												
370												
371	539	Misc. Hydro Expenses										
372			P	DGP	-	-	-	-	-	-	-	
373			P	SG	3,026,737	3,026,737	-	-	-	-	-	
374			P	SG	1,520,651	1,520,651	-	-	-	-	-	
375												
376												
377					4,547,388	4,547,388	-	-	-	-	-	
378												
379	540	Rents (Hydro Generation)										
380			P	DGP	-	-	-	-	-	-	-	
381			P	SG	41,730	41,730	-	-	-	-	-	
382			P	SG	2,542	2,542	-	-	-	-	-	
383												
384					44,272	44,272	-	-	-	-	-	
385												
386	541	Mainl Supervision & Engineering										
387			P	DGP	-	-	-	-	-	-	-	
388			P	SG	-	-	-	-	-	-	-	
389			P	SG	-	-	-	-	-	-	-	
390												
391												
392												
393	542	Maintenance of Structures										
394			P	DGP	-	-	-	-	-	-	-	
395			P	SG	241,247	241,247	-	-	-	-	-	
396			P	SG	18,208	18,208	-	-	-	-	-	
397												
398					259,455	259,455	-	-	-	-	-	
399												
400												
401												
402												
403	543	Maintenance of Dams & Waterways										
404			P	DGP	-	-	-	-	-	-	-	
405			P	SG	235,830	235,830	-	-	-	-	-	
406			P	SG	113,094	113,094	-	-	-	-	-	
407												
408					348,924	348,924	-	-	-	-	-	
409												
410	544	Maintenance of Electric Plant										
411			P	DGP	-	-	-	-	-	-	-	
412			P	SG	331,398	331,398	-	-	-	-	-	
413			P	SG	242,405	242,405	-	-	-	-	-	
414												
415					573,803	573,803	-	-	-	-	-	
416												
417	545	Maintenance of Misc. Hydro Plant										
418			P	DGP	-	-	-	-	-	-	-	
419			P	SG	431,794	431,794	-	-	-	-	-	
420			P	SG	209,526	209,526	-	-	-	-	-	
421												
422					641,321	641,321	-	-	-	-	-	
423												
424					9,911,805	9,911,805	-	-	-	-	-	
424	Total Hydraulic Power Generation											
425	ACCT	DESCRIPTION	FUNCTION	FACTOR	Normalized	Production	Transmission	Distribution	Ancillary	C Billing	C Metering	C Service
426	546	Operation Super & Engineering										
427			P	SG	129,162	129,162	-	-	-	-	-	
428			P	SSGCT	-	-	-	-	-	-	-	
429					129,162	129,162	-	-	-	-	-	
430												
431	547	Fuel-Non-NPC										
432			P	SE	-	-	-	-	-	-	-	
433			P	SSECT	-	-	-	-	-	-	-	
434												
435												
436	547NPC	Fuel-NPC										
437			P	SE	106,618,665	106,618,665	-	-	-	-	-	
438			P	SSECT	2,903,754	2,903,754	-	-	-	-	-	
439					109,522,419	109,522,419	-	-	-	-	-	
440												

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C. Billing	C. Metering	C. Service
441	548	Generation Expense									
442			P	SG	3,719,306	3,719,306	-	-	-	-	-
443			P	SSGCT	385,797	385,797	-	-	-	-	-
444					4,105,102	4,105,102	-	-	-	-	-
445											
446	549	Miscellaneous Other									
447			P	SG	7,897,757	7,897,757	-	-	-	-	-
448			P	SSGCT	-	-	-	-	-	-	-
449					7,897,757	7,897,757	-	-	-	-	-
450											
451											
452											
453	550	Maint Supervision & Engineering									
454			P	SG	497,741	497,741	-	-	-	-	-
455			P	SSGCT	0	0	-	-	-	-	-
456					497,741	497,741	-	-	-	-	-
457											
458											
459	551	Maint Supervision & Engineering									
460			P	SG	-	-	-	-	-	-	-
461					-	-	-	-	-	-	-
462											
463	552	Maintenance of Structures									
464			P	SG	129,842	129,842	-	-	-	-	-
465			P	SSGCT	38,532	38,532	-	-	-	-	-
466					168,374	168,374	-	-	-	-	-
467											
468	553	Maint of Generation & Electric Plant									
469			P	SG	2,433,974	2,433,974	-	-	-	-	-
470			P	SSGCT	199,057	199,057	-	-	-	-	-
471					2,633,031	2,633,031	-	-	-	-	-
472											
473	554	Maintenance of Misc. Other									
474			P	SG	36,518	36,518	-	-	-	-	-
475			P	SSGCT	40,189	40,189	-	-	-	-	-
476					76,708	76,708	-	-	-	-	-
477											
478		Total Other Power Generation			125,030,295	125,030,295	-	-	-	-	-
479											
480											
481	555	Purchased Power-Non NPC									
482			DSM	S	-	-	-	-	-	-	-
483					-	-	-	-	-	-	-
484											
485	555NPC	Purchased Power-NPC									
486			P	SG	124,965,942	124,965,942	-	-	-	-	-
487			P	SE	14,733,777	14,733,777	-	-	-	-	-
488			P	SSGC	-	-	-	-	-	-	-
489			P	DGP	-	-	-	-	-	-	-
490					139,699,720	139,699,720	-	-	-	-	-
491											
492		Total Purchased Power			139,699,720	139,699,720	-	-	-	-	-
493											
494	556	System Control & Load Dispatch									
495			P	SG	619,531	619,531	-	-	-	-	-
496											
497					619,531	619,531	-	-	-	-	-
498											
499											
500											
501	557	Other Expenses									
502			P	S	(57,199)	(57,199)	-	-	-	-	-
503			P	SG	9,344,271	9,344,271	-	-	-	-	-
504			P	SGCT	321,868	321,868	-	-	-	-	-
505			P	SE	-	-	-	-	-	-	-
506			P	SSGCT	109	109	-	-	-	-	-
507			P	TROJP	-	-	-	-	-	-	-
508											
509					9,609,049	9,609,049	-	-	-	-	-
510											
511		Embedded Cost Differentials									
512		Company Owned Hydro	P	DGP	(34,051,523)	(34,051,523)	-	-	-	-	-
513		Company Owned Hydro	P	SG	16,877,782	16,877,782	-	-	-	-	-
514		Mid-C Contract	P	MC	(23,154,241)	(23,154,241)	-	-	-	-	-
515		Mid-C Contract	P	SG	10,081,826	10,081,826	-	-	-	-	-
516		Existing QF Contracts	P	S	27,876,994	27,876,994	-	-	-	-	-
517		Existing QF Contracts	P	SG	(11,154,241)	(11,154,241)	-	-	-	-	-
518											
519					(13,523,403)	(13,523,403)	-	-	-	-	-
520											
521		Total Other Power Supply			136,404,897	136,404,897	-	-	-	-	-
522											
523		TOTAL PRODUCTION EXPENSE			521,906,287	521,906,287	-	-	-	-	-

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C_Billing	C_Metering	C_Service
524											
525											
526	Summary of Production Expense by Factor										
527	S			27,819,795	27,819,795	-	-	-	-	-	-
528	SG			245,521,844	245,521,844	-	-	-	-	-	-
529	SE			280,662,647	280,662,647	-	-	-	-	-	-
530	SNPPH			-	-	-	-	-	-	-	-
531	TROJP			-	-	-	-	-	-	-	-
532	SGCT			321,868	321,868	-	-	-	-	-	-
533	DGP			(34,051,523)	(34,051,523)	-	-	-	-	-	-
534	DEU			-	-	-	-	-	-	-	-
535	DEP			-	-	-	-	-	-	-	-
536	SNPPS			-	-	-	-	-	-	-	-
537	SNPPO			-	-	-	-	-	-	-	-
538	DGU			-	-	-	-	-	-	-	-
539	MC			(23,154,241)	(23,154,241)	-	-	-	-	-	-
540	SSGCT			663,685	663,685	-	-	-	-	-	-
541	SSECT			2,903,754	2,903,754	-	-	-	-	-	-
542	SSGC			-	-	-	-	-	-	-	-
543	SSGCH			6,744,621	6,744,621	-	-	-	-	-	-
544	SSECH			14,473,837	14,473,837	-	-	-	-	-	-
545	Total Production Expense by Factor										
546	560	Operation Supervision & Engineering		521,906,287	521,906,287	-	-	-	-	-	-
547		T	SG	2,553,838	-	2,553,838	-	-	-	-	-
548											
549				2,553,838	-	2,553,838	-	-	-	-	-
550											
551	561	Load Dispatching									
552		T	SG	2,371,924	-	2,371,924	-	-	-	-	-
553											
554				2,371,924	-	2,371,924	-	-	-	-	-
555	562	Station Expense									
556		T	SG	519,273	-	519,273	-	-	-	-	-
557											
558				519,273	-	519,273	-	-	-	-	-
559											
560	563	Overhead Line Expense									
561		T	SG	(280,315)	-	(280,315)	-	-	-	-	-
562											
563				(280,315)	-	(280,315)	-	-	-	-	-
564											
565	564	Underground Line Expense									
566		T	SG	-	-	-	-	-	-	-	-
567											
568				-	-	-	-	-	-	-	-
569											
570	565	Transmission of Electricity by Others-Non NPC									
571		T	SG	-	-	-	-	-	-	-	-
572		T	SE	-	-	-	-	-	-	-	-
573											
574				-	-	-	-	-	-	-	-
575	565NPC	Transmission of Electricity by Others-NPC									
576		T	SG	38,781,856	-	38,781,856	-	-	-	-	-
577		T	SE	68,735	-	68,735	-	-	-	-	-
578				38,850,591	-	38,850,591	-	-	-	-	-
579											
580				38,850,591	-	38,850,591	-	-	-	-	-
581											
582	566	Misc. Transmission Expense									
583		T	SG	111,392	-	111,392	-	-	-	-	-
584											
585				111,392	-	111,392	-	-	-	-	-
586											
587	567	Rents - Transmission									
588		T	SG	394,170	-	394,170	-	-	-	-	-
589											
590				394,170	-	394,170	-	-	-	-	-
591											
592	568	Maint Supervision & Engineering									
593		T	SG	12,274	-	12,274	-	-	-	-	-
594											
595				12,274	-	12,274	-	-	-	-	-
596											
597	569	Maintenance of Structures									
598		T	SG	1,034,011	-	1,034,011	-	-	-	-	-
599											
600				1,034,011	-	1,034,011	-	-	-	-	-
601											
602	570	Maintenance of Station Equipment									
603		STEP_UP	SG	2,684,028	227,849	2,456,180	-	-	-	-	-
604											
605				2,684,028	227,849	2,456,180	-	-	-	-	-
606											
607	571	Maintenance of Overhead Lines									
608		T	SG	4,154,028	-	4,154,028	-	-	-	-	-
609											
610				4,154,028	-	4,154,028	-	-	-	-	-
611											
612	572	Maintenance of Underground Lines									
613		T	SG	-	-	-	-	-	-	-	-
614											
615				-	-	-	-	-	-	-	-
616											
617	573	Maint of Misc. Transmission Plant									
618		T	SG	150,619	-	150,619	-	-	-	-	-
619											
620				150,619	-	150,619	-	-	-	-	-
621											
622	TOTAL TRANSMISSION EXPENSE										
				52,555,833	227,849	52,327,985	-	-	-	-	-

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C Billing	C Metering	C Service
623	Summary of Transmission Expense by Factor										
624	SE			68,735	-	-	-	-	-	-	-
625	SG			52,487,098	-	-	-	-	-	-	-
626	SNPT			-	227,849	13,477,393	-	-	-	-	-
627	Total Transmission Expense by Factor										
628				52,555,833	227,849	13,477,393	-	-	-	-	-
629	580 Operation Supervision & Engineering										
630	D_SPLIT		S	(21)	-	-	(20.08)	-	-	(0.73)	-
631	D_SPLIT		SNPD	5,666,616	-	-	5,466,968.63	-	-	199,647.67	-
632				5,666,595	-	-	5,466,949	-	-	199,647	-
633	581 Load Dispatching										
634			S	-	-	-	-	-	-	-	-
635	D		SNPD	3,813,426	-	-	3,813,426	-	-	-	-
636	D			3,813,426	-	-	3,813,426	-	-	-	-
637	582 Station Expense										
638			S	1,215,958	-	-	1,215,958	-	-	-	-
639	D		SNPD	(11,247)	-	-	(11,247)	-	-	-	-
640	D			1,204,711	-	-	1,204,711	-	-	-	-
641	583 Overhead Line Expenses										
642			S	588,926	-	-	588,926	-	-	-	-
643	D		SNPD	66,587	-	-	66,587	-	-	-	-
644	D			655,514	-	-	655,514	-	-	-	-
645	584 Underground Line Expense										
646			S	(216,863)	-	-	(216,863)	-	-	-	-
647	D		SNPD	-	-	-	-	-	-	-	-
648	D			(216,863)	-	-	(216,863)	-	-	-	-
649	585 Street Lighting & Signal Systems										
650			S	-	-	-	-	-	-	-	-
651	D		SNPD	68,252	-	-	68,252	-	-	-	-
652	D			68,252	-	-	68,252	-	-	-	-
653	586 Meter Expenses										
654			S	2,376,254	-	-	-	-	-	2,376,253.85	-
655	C_Meter		SNPD	371,068	-	-	-	-	-	371,068.35	-
656	C_Meter			2,747,322	-	-	-	-	-	2,747,322	-
657	587 Customer Installation Expenses										
658			S	5,807,463	-	-	5,807,463	-	-	-	-
659	D		SNPD	-	-	-	-	-	-	-	-
660	D			5,807,463	-	-	5,807,463	-	-	-	-
661	588 Misc. Distribution Expenses										
662			S	1,649,755	-	-	1,649,755	-	-	-	-
663	D		SNPD	(557,433)	-	-	(557,433)	-	-	-	-
664	D			1,092,322	-	-	1,092,322	-	-	-	-
665	908 Rents										
666			S	1,868,519	-	-	1,868,519	-	-	-	-
667	D		SNPD	75,683	-	-	75,683	-	-	-	-
668	D			1,944,202	-	-	1,944,202	-	-	-	-
669	590 Maint Supervision & Engineering										
670			S	277,517	-	-	267,739.36	-	-	9,777.55	-
671	D_SPLIT		SNPD	1,736,817	-	-	1,675,625.27	-	-	61,191.99	-
672	D_SPLIT			2,014,334	-	-	1,943,365	-	-	70,970	-
673	591 Maintenance of Structures										
674			S	473,352	-	-	473,352	-	-	-	-
675	D		SNPD	52,634	-	-	52,634	-	-	-	-
676	D			525,987	-	-	525,987	-	-	-	-
677	592 Maintenance of Station Equipment										
678			S	3,313,499	-	-	3,313,499	-	-	-	-
679	D		SNPD	557,480	-	-	557,480	-	-	-	-
680	D			3,870,979	-	-	3,870,979	-	-	-	-
681	593 Maintenance of Overhead Lines										
682			S	30,842,053	-	-	30,842,053	-	-	-	-
683	D		SNPD	407,343	-	-	407,343	-	-	-	-
684	D			31,249,397	-	-	31,249,397	-	-	-	-
685	594 Maintenance of Underground Lines										
686			S	6,193,419	-	-	6,193,419	-	-	-	-
687	D		SNPD	1,916	-	-	1,916	-	-	-	-
688	D			6,195,335	-	-	6,195,335	-	-	-	-
689	595 Maintenance of Line Transformers										
690			S	54,401	-	-	54,401	-	-	-	-
691	D		SNPD	313,292	-	-	313,292	-	-	-	-
692	D			367,693	-	-	367,693	-	-	-	-
693	596 Maint of Street Lighting & Signal Sys.										
694			S	858,984	-	-	858,984	-	-	-	-
695	D		SNPD	-	-	-	-	-	-	-	-
696	D			858,984	-	-	858,984	-	-	-	-
697	597 Maintenance of Meters										
698			S	1,235,413	-	-	-	-	-	1,235,412.50	-
699	C_Meter		SNPD	497,977	-	-	-	-	-	497,976.62	-
700	C_Meter			1,733,389	-	-	-	-	-	1,733,389	-

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C_Billing	C_Metering	C_Service
718 599	Maint of Misc. Distribution Plant										
719		D	S	1,118,212	-	-	1,118,212	-	-	-	-
720		D	SNPD	(6,661)	-	-	(6,661)	-	-	-	-
721				1,111,551	-	-	1,111,551	-	-	-	-
722											
723	TOTAL DISTRIBUTION EXPENSE			70,710,593	-	-	65,959,265	-	-	4,751,328	-
724											
725											
726	Summary of Distribution Expense by Factor										
727		S		57,656,840	-	-	54,035,397	-	-	3,621,443	-
728		SNPD		13,053,753	-	-	11,923,869	-	-	1,129,885	-
729											
730	Total Distribution Expense by Factor			70,710,593	-	-	65,959,265	-	-	4,751,328	-
731											
732	901 Supervision										
733		CUST901	S	(1,022,122)	-	-	-	-	(648,613)	71,439	(444,947)
734		CUST901	CN	763,639	-	-	-	-	484,587	(53,373)	332,425
735				(258,482)	-	-	-	-	(164,026)	18,066	(112,522)
736											
737	902 Meter Reading Expense										
738		C_Meter	S	10,232,031	-	-	-	-	-	10,232,031.11	-
739		C_Meter	CN	239,983	-	-	-	-	-	239,982.89	-
740				10,472,014	-	-	-	-	-	10,472,014	-
741											
742	903 Customer Receipts & Collections										
743		CUST903	S	2,139,103	-	-	-	-	1,275,208	-	863,895
744		CUST903	CN	15,777,196	-	-	-	-	9,405,444	-	6,371,752
745				17,916,299	-	-	-	-	10,680,652	-	7,235,647
746											
747	904 Uncollectible Accounts										
748		REVREQ	S	5,042,637	3,202,569	531,264	1,069,336	0	67,854	116,287.17	55,327
749		P	SG	-	-	-	-	-	-	-	-
750		REVREQ	CN	1,212	769	128	257	0	16	27.94	13
751				5,043,849	3,203,339	531,391	1,069,593	0	67,870	116,315	55,340
752											
753	905 Misc. Customer Accounts Expense										
754		CUST905	S	5,686	-	-	-	-	504	438	4,744
755		CUST905	CN	(1,468,463)	-	-	-	-	(130,274)	(113,019)	(1,225,170)
756				(1,462,777)	-	-	-	-	(129,769)	(112,582)	(1,220,426)
757											
758	TOTAL CUSTOMER ACCOUNTS EXPENSE			31,710,902	3,203,339	531,391	1,069,593	0	10,454,727	10,493,813	5,958,039
759											
760	Summary of Customer Accts Exp by Factor										
761		S		16,397,335	3,202,569	531,264	1,069,336	0	694,954	10,420,194	479,018
762		CN		15,313,567	769	128	257	0	9,759,773	73,619	5,479,021
763		SG		-	3,203,339	531,391	-	0	-	-	-
764	Total Customer Accounts Expense by Factor			31,710,902	6,406,678	1,062,783	1,069,593	0	10,454,727	10,493,813	5,958,039
765											
766	907 Supervision										
767		C_Service	S	-	-	-	-	-	-	-	-
768		C_Service	CN	93,092	-	-	-	-	-	-	93,092
769				93,092	-	-	-	-	-	-	93,092
770											
771	908 Customer Assistance										
772		DSM	S	1,198,841	-	-	1,198,841	-	-	-	-
773		C_Service	CN	1,364,661	-	-	-	-	-	-	1,364,661
774											
775											
776				2,563,502	-	-	1,198,841	-	-	-	1,364,661
777											
778	909 Informational & Instructional Adv										
779		C_Service	S	38,033	-	-	-	-	-	-	38,033
780		C_Service	CN	980,259	-	-	-	-	-	-	980,259
781				1,018,292	-	-	-	-	-	-	1,018,292
782											
783	910 Misc. Customer Service										
784		C_Service	S	-	-	-	-	-	-	-	-
785		C_Service	CN	20,583	-	-	-	-	-	-	20,583
786											
787				20,583	-	-	-	-	-	-	20,583
788											
789	TOTAL CUSTOMER SERVICE EXPENSE			3,695,469	-	-	1,198,841	-	-	-	2,496,628
790											
791											
792	Summary of Customer Service Exp by Factor										
793		S		1,236,874	-	-	1,198,841	-	-	-	38,033
794		CN		2,458,595	-	-	-	-	-	-	2,458,595
795											
796	Total Customer Service Expense by Factor			3,695,469	-	-	1,198,841	-	-	-	2,496,628
797											
798											
799	911 Supervision										
800		P	S	-	-	-	-	-	-	-	-
801		P	CN	-	-	-	-	-	-	-	-
802											
803											
804	912 Demonstration & Selling Expense										
805		P	S	-	-	-	-	-	-	-	-
806		P	CN	-	-	-	-	-	-	-	-
807											
808											



RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C Billing	C Metering	C Service
809	913	Advertising Expense									
810			P	S	-	-	-	-	-	-	-
811			P	CN	-	-	-	-	-	-	-
812					-	-	-	-	-	-	-
813					-	-	-	-	-	-	-
814	916	Misc. Sales Expense									
815			P	S	-	-	-	-	-	-	-
816			P	CN	-	-	-	-	-	-	-
817					-	-	-	-	-	-	-
818					-	-	-	-	-	-	-
819		TOTAL SALES EXPENSE			-	-	-	-	-	-	-
820					-	-	-	-	-	-	-
821					-	-	-	-	-	-	-
822		Total Sales Expense by Factor			-	-	-	-	-	-	-
823		S			-	-	-	-	-	-	-
824		CN			-	-	-	-	-	-	-
825		Total Sales Expense by Factor			-	-	-	-	-	-	-
826					-	-	-	-	-	-	-
827		Total Customer Service Exp Including Sales			3,695,469	-	1,198,841	-	-	-	2,496,628
828	920	Administrative & General Salaries									
829		LABOR		S	-	-	-	-	-	-	-
830		LABOR		CN	-	-	-	-	-	-	-
831		LABOR		SO	22,586,740	9,130,560	1,087,032	7,679,636	1,229,041	2,211,184	1,249,287
832					22,586,740	9,130,560	1,087,032	7,679,636	1,229,041	2,211,184	1,249,287
833					-	-	-	-	-	-	-
834	921	Office Supplies & expenses									
835		LABOR		S	-	-	-	-	-	-	-
836		LABOR		CN	-	-	-	-	-	-	-
837		LABOR		SO	3,715,460	1,501,953	178,814	1,263,280	202,174	363,734	205,504
838					3,715,460	1,501,953	178,814	1,263,280	202,174	363,734	205,504
839					-	-	-	-	-	-	-
840	922	Office Supplies & expenses									
841		LABOR		S	-	-	-	-	-	-	-
842		LABOR		CN	-	-	-	-	-	-	-
843		LABOR		SO	(6,450,090)	(2,607,412)	(310,424)	(2,193,072)	(350,977)	(631,447)	(356,759)
844					(6,450,090)	(2,607,412)	(310,424)	(2,193,072)	(350,977)	(631,447)	(356,759)
845					-	-	-	-	-	-	-
846	923	Outside Services									
847		LABOR		S	-	-	-	-	-	-	-
848		LABOR		CN	-	-	-	-	-	-	-
849		LABOR		SO	3,097,489	1,252,142	149,073	1,053,166	168,548	303,236	171,324
850					3,097,489	1,252,142	149,073	1,053,166	168,548	303,236	171,324
851					-	-	-	-	-	-	-
852	924	Property Insurance									
853		GP		SO	9,908,085	4,758,399	1,604,923	3,285,138.74	61,899	157,126.12	40,598
854					9,908,085	4,758,399	1,604,923	3,285,139	61,899	157,126	40,598
855					-	-	-	-	-	-	-
856	925	Injuries & Damages									
857		LABOR		SO	2,519,432	1,018,466	121,253	856,623	137,093	246,646	139,351
858					2,519,432	1,018,466	121,253	856,623	137,093	246,646	139,351
859					-	-	-	-	-	-	-
860	926	Employee Pensions & Benefits									
861		LABOR		S	-	-	-	-	-	-	-
862		LABOR		CN	-	-	-	-	-	-	-
863		LABOR		SO	-	-	-	-	-	-	-
864					-	-	-	-	-	-	-
865					-	-	-	-	-	-	-
866	928	Franchise Requirements									
867		DSM		S	-	-	-	-	-	-	-
868		DSM		SO	-	-	-	-	-	-	-
869					-	-	-	-	-	-	-
870					-	-	-	-	-	-	-
871	928	Regulatory Commission Expense									
872		D		S	2,814,219	-	-	2,814,219	-	-	-
873		D		CN	-	-	-	-	-	-	-
874		D		SO	-	-	-	-	-	-	-
875		FERC		SG	252,743	130,091	122,652	-	-	-	-
876					3,066,961	130,091	122,652	2,814,219	-	-	-
877					-	-	-	-	-	-	-
878	929	Duplicate Charges									
879		LABOR		S	-	-	-	-	-	-	-
880		LABOR		SO	(1,424,427)	(575,817)	(68,553)	(484,314)	(77,509)	(139,448)	(78,786)
881					(1,424,427)	(575,817)	(68,553)	(484,314)	(77,509)	(139,448)	(78,786)
882					-	-	-	-	-	-	-
883	930	Misc General Expenses									
884		LABOR		S	3,863,494	1,561,795	185,938	1,313,613	210,229	378,226	213,692
885		LABOR		CN	1,676	678	81	570	91	164	93
886		LABOR		SO	(1,090,282)	(440,740)	(62,472)	(370,703)	(59,327)	(106,736)	(60,304)
887					2,774,889	1,121,733	133,547	943,480	150,994	271,654	153,481
888					-	-	-	-	-	-	-
889	931	Rents									
890		LABOR		S	966,793	390,820	46,529	328,716	52,607	94,647	53,474
891		LABOR		SO	1,630,637	659,175	78,478	554,427	88,730	159,635	90,192
892					2,597,430	1,049,996	125,007	883,143	141,337	254,282	143,665
893					-	-	-	-	-	-	-
894	935	Maintenance of General Plant									
895		G		S	33,985	8,731	7,455	16,229	909	661	-
896		CUST		CN	-	-	-	-	-	-	-
897		G		SO	7,244,518	1,861,253	1,589,186	3,459,427	193,834	140,818	-
898					7,278,503	1,869,985	1,596,641	3,475,655	194,743	141,478	-
899					-	-	-	-	-	-	-
900		TOTAL ADMINISTRATIVE & GEN EXPENSE			49,670,470	18,650,096	4,739,965	19,576,953	1,857,343	3,178,446	1,667,667

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC	BUSINESS	PITA	OREGON	Production	Transmission	Distribution	Ancillary	C. Billing	C. Metering	C. Service
ACCT	DESCRIPTION	FUNCTION	FACTOR	Normalized						
901	Summary of A&G Expense by Factor									
902	S		7,678,491	1,961,347	239,922	4,472,776	-	263,746	473,533	267,166
904	SO		41,737,560	19,165,392	4,687,734	17,296,680	-	1,944,483	3,336,196	1,757,166
905	SG		252,743	130,091	122,662	-	-	-	-	-
906	CN		1,676	678	81	570	-	91	164	93
907	Total A&G Expense by Factor									
			49,670,470	21,257,508	5,050,388	21,770,025	-	2,208,320	3,809,893	2,024,425
909	TOTAL O&M EXPENSE									
			730,249,555	543,987,570	57,599,341	87,804,653	0	12,312,070	18,423,587	10,122,334
910	403SP	Steam Depreciation								
911		P	SG	9,090,981	9,090,981	-	-	-	-	-
912		P	SG	8,946,743	8,946,743	-	-	-	-	-
913		P	SG	19,356,531	19,356,531	-	-	-	-	-
914		P	SSGCH	3,247,467	3,247,467	-	-	-	-	-
915				40,641,722	40,641,722	-	-	-	-	-
916										
917	403NP	Nuclear Depreciation								
918		P	SG	-	-	-	-	-	-	-
919				-	-	-	-	-	-	-
920										
921	403HP	Hydro Depreciation								
922		P	SG	1,046,894	1,046,894	-	-	-	-	-
923		P	SG	270,633	270,633	-	-	-	-	-
924		P	SG	2,298,504	2,298,504	-	-	-	-	-
925		P	SG	1,006,761	1,006,761	-	-	-	-	-
926				4,622,792	4,622,792	-	-	-	-	-
927										
928	403OP	Other Production Depreciation								
929		P	SG	32,414	32,414	-	-	-	-	-
930		P	SG	25,360,042	25,360,042	-	-	-	-	-
931		P	SSGCT	671,728	671,728	-	-	-	-	-
932		P	SSGCH	-	-	-	-	-	-	-
933				26,064,184	26,064,184	-	-	-	-	-
934										
935	403TP	Transmission Depreciation								
936		T_Split	SG	3,016,575	83,969.53	2,932,605.54	-	-	-	-
937		T_Split	SG	3,370,163	93,812.03	3,276,351.36	-	-	-	-
938		T_Split	SG	11,047,151	307,509.03	10,739,641.97	-	-	-	-
939				17,433,889	485,291	16,948,599	-	-	-	-
940										
941										
942										
943	403	Distribution Depreciation								
944	360	Land & Land Rights	D	S	59,166	-	59,166	-	-	-
945	361	Structures	D	S	233,902	-	233,902	-	-	-
946	362	Station Equipment	D	S	3,761,906	-	3,761,906	-	-	-
947	363	Storage Battery Equipme	D	S	-	-	-	-	-	-
948	364	Poles & Towers	D	S	15,783,591	-	15,783,591	-	-	-
949	365	OH Conductors	D	S	6,521,785	-	6,521,785	-	-	-
950	366	UG Conduitt	D	S	2,096,675	-	2,096,675	-	-	-
951	367	UG Conductor	D	S	3,285,318	-	3,285,318	-	-	-
952	368	Line Trans	D	S	9,967,097	-	9,967,097	-	-	-
953	369	Services	D	S	3,821,583	-	3,821,583	-	-	-
954	370	Meters	C_Meter	S	2,153,361	-	-	-	2,153,360.84	-
955	371	Inst Cust Prem	D	S	106,738	-	106,738	-	-	-
956	372	Leased Property	D	S	-	-	-	-	-	-
957	373	Street Lighting	D	S	605,513	-	605,513	-	-	-
958				48,396,637	-	46,243,276	-	-	2,153,361	-
959										
960	403GP	General Depreciation								
961		TD	S	4,302,300	-	1,462,303	2,739,937.25	-	100,059.49	-
962		G-DGP	SG	94,463	64,764	29,699	-	-	-	-
963		G-DGU	SG	173,413	118,892	54,521	-	-	-	-
964		P	SE	5,210	5,210	-	-	-	-	-
965		COM_EQ	CN	432,212	68,909	170,225	187,041	-	-	6,036
966		G-SG	SG	1,221,134	838,070	374,974	7,773	-	316	-
967		LABOR	SO	4,423,364	1,788,120	212,883	1,503,972	240,694	433,036	244,659
968		G-SG	SSGCT	840	576	268	5	-	0	-
969		G-SG	SSGCH	33,074	22,699	10,156	211	-	9	-
970				10,686,011	2,907,240	2,315,021	4,438,939	240,694	533,421	250,695
971										
972	403GV0	General Vehicles								
973		G-SG	SG	-	-	-	-	-	-	-
974				-	-	-	-	-	-	-
975										
976	403MP	Mining Depreciation								
977		P	SE	-	-	-	-	-	-	-
978				-	-	-	-	-	-	-
979										
980	403EP	Experimental Plant Depreciation								
981		P	SG	-	-	-	-	-	-	-
982		P	SG	-	-	-	-	-	-	-
983				-	-	-	-	-	-	-

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C Billing	C Metering	C Service
984	4031	ARO Depreciation									
985			P								
986			S								
987											
988											
989											
990											
991											
992											
993											
994											
995											
996											
997											
998											
999											
1000											
1001											
1002	404GP	Amort of LT Plant - Capital Lease Gen									
1003		TD	S	688,163	-	233,899	438,259.14	-	-	16,004.74	-
1004		I-SG	SG	-	-	-	-	-	-	-	-
1005		LABOR	SO	457,875	185,093	22,036	155,680	-	24,915	44,825	25,325
1006		I-DGU	SG	-	-	-	-	-	-	-	-
1007		CUST	CN	71,936	-	-	-	-	71,936	-	-
1008		I-DGP	SG	-	-	-	-	-	-	-	-
1009				1,217,973	185,093	255,935	593,939	-	96,851	60,829	25,325
1010											
1011	404SP	Amort of LT Plant - Cap Lease Steam									
1012		P	SG	-	-	-	-	-	-	-	-
1013		P	SG	-	-	-	-	-	-	-	-
1014				-	-	-	-	-	-	-	-
1015				-	-	-	-	-	-	-	-
1016	404IP	Amort of LT Plant - Intangible Plant									
1017		TD	S	19,205	-	6,527	12,230.66	-	-	446.65	-
1018		P	SE	60,359	60,359	-	-	-	-	-	-
1019		I-SG	SG	1,242,521	1,112,363	129,756	387	-	-	16	-
1020		LABOR	SO	7,953,029	3,214,966	382,756	2,704,081	-	432,758	778,581	439,887
1021		CSS_SYS	CN	1,785,105	-	-	-	-	981,808	321,319	481,978
1022		I-SG	SG	2,069,936	1,853,103	216,162	644	-	-	26	-
1023		I-SG	SG	83,234	74,515	8,692	26	-	-	1	-
1024		I-DGP	SG	-	-	-	-	-	-	-	-
1025		I-SG	SSGCT	-	-	-	-	-	-	-	-
1026		I-SG	SSGCH	-	-	-	-	-	-	-	-
1027		I-DGU	SG	4,285	4,285	-	-	-	-	-	-
1028				13,217,674	6,319,591	743,894	2,717,368	-	1,414,566	1,100,390	921,865
1029											
1030	404MP	Amort of LT Plant - Mining Plant									
1031		P	SE	-	-	-	-	-	-	-	-
1032				-	-	-	-	-	-	-	-
1033				-	-	-	-	-	-	-	-
1034	404OP	Amort of LT Plant - Other Plant									
1035		P	SSGCT	-	-	-	-	-	-	-	-
1036				-	-	-	-	-	-	-	-
1037				-	-	-	-	-	-	-	-
1038				-	-	-	-	-	-	-	-
1039	404HP	Amortization of Other Electric Plant									
1040		Pre-Merger Pacific	P	613	613	-	-	-	-	-	-
1041		Pre-Merger Utah	P	10,346	10,346	-	-	-	-	-	-
1042		Post-Merger Plant	P	-	-	-	-	-	-	-	-
1043				10,958	10,958	-	-	-	-	-	-
1044											
1045				14,446,605	6,515,843	999,828	3,311,307	-	1,511,417	1,161,219	947,191
1046											
1047											
1048	405	Amortization of Other Electric Plant									
1049		GP	S	-	-	-	-	-	-	-	-
1050				-	-	-	-	-	-	-	-
1051				-	-	-	-	-	-	-	-
1052				-	-	-	-	-	-	-	-
1053	406	Amortization of Plant Acquisition Adj									
1054		P	S	-	-	-	-	-	-	-	-
1055		P	SG	-	-	-	-	-	-	-	-
1056		P	SG	-	-	-	-	-	-	-	-
1057		P	SG	1,472,679	1,472,679	-	-	-	-	-	-
1058		P	SO	-	-	-	-	-	-	-	-
1059				1,472,679	1,472,679	-	-	-	-	-	-
1060	407	Amort of Prop Losses, Unrec Plant, etc									
1061		D_SPLIT	S	(67,953)	-	-	(65,558.98)	-	-	(2,394.14)	-
1062		GP	SO	-	-	-	-	-	-	-	-
1063		P	SG-P	0	0	-	-	-	-	-	-
1064		P	SE	-	-	-	-	-	-	-	-
1065		P	SG	89,528	89,528	-	-	-	-	-	-
1066		P	TROJP	535,491	535,491	-	-	-	-	-	-
1067				557,066	625,019	-	(65,559)	-	-	(2,394)	-
1068											
1069				16,476,351	8,613,341	999,828	3,245,748	-	1,511,417	1,158,825	947,191

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C. Billing	C. Metering	C. Service
1070											
1071											
1072											
1073	Summary of Amortization Expense by Factor										
1074	S			639,414	-	240,426	384,931	-	-	14,057	-
1075	SE			60,359	60,359	-	-	-	-	-	-
1076	TROJP			535,491	535,491	-	-	-	-	-	-
1077	DGP			-	613	-	-	-	-	-	-
1078	DGU			-	14,630	-	-	-	-	-	-
1079	SO			8,410,904	3,400,059	404,792	2,859,761	-	457,673	823,406	465,212
1080	SSGCT			-	1,472,679	-	-	-	981,808	321,319	481,978
1081	SSGCH			-	-	-	-	-	-	-	-
1082	CN			1,857,041	-	-	-	-	1,053,744	321,319	481,978
1083	SG			4,973,142	2,674,570	129,756	387	-	-	16	-
1084	Total Amortization Expense by Factor										
				16,476,351	8,158,402	774,974	3,245,078	-	2,493,225	1,480,117	1,429,169
1085	408	Taxes Other Than Income									
1086	D		S	22,233,321	-	-	22,233,321	-	-	-	-
1087	GP		GPS	27,067,802	12,999,425	4,384,475	8,974,639	-	169,101	429,251.35	110,910
1088	REVREQ		SO	2,480,187	1,575,162	261,299	525,946	0	33,374	57,195.07	27,212
1089	P		SE	185,563	185,563	-	-	-	-	-	-
1090	DSM		SG	-	-	-	-	-	-	-	-
1091	DSM		OPRV-ID	-	-	-	-	-	-	-	-
1092	GP		EXCTAX	-	-	-	-	-	-	-	-
1093	GP		SG	-	-	-	-	-	-	-	-
1094											
1095											
1096											
1097				51,966,873	14,760,151	4,645,773	31,733,906	0	202,475	486,446	138,122
1098											
1099											
1100	41140	Deferred Investment Tax Credit - Fed									
1101			PTD								
1102			DGU	-	-	-	-	-	-	-	-
1103											
1104											
1105	41141	Deferred Investment Tax Credit - Idaho									
1106			PTD								
1107			DGU	-	-	-	-	-	-	-	-
1108											
1109											
1110	TOTAL DEFERRED ITC										
1111											
1112											
1113	427	Interest on Long-Term Debt									
1114			NP	85,221,543	43,131,763	14,595,740	26,052,299	-	260,187	977,946.66	203,607
1115			SNP	-	-	-	-	-	-	-	-
1116				85,221,543	43,131,763	14,595,740	26,052,299	-	260,187	977,947	203,607
1117											
1118	428	Amortization of Debt Disc & Exp									
1119			NP	-	-	-	-	-	-	-	-
1120			SNP	-	-	-	-	-	-	-	-
1121											
1122	429	Amortization of Premium on Debt									
1123			NP	-	-	-	-	-	-	-	-
1124			SNP	-	-	-	-	-	-	-	-
1125											
1126	431	Other Interest Expense									
1127			NUTIL	-	-	-	-	-	-	-	-
1128			GP	-	-	-	-	-	-	-	-
1129			NP	-	-	-	-	-	-	-	-
1130			SNP	-	-	-	-	-	-	-	-
1131											
1132	432	AFUDC - Borrowed									
1133			NP	-	-	-	-	-	-	-	-
1134			SNP	-	-	-	-	-	-	-	-
1135											
1136	Total Electric Interest Deductions for Tax										
				85,221,543	43,131,763	14,595,740	26,052,299	-	260,187	977,947	203,607
1137											
1138	Non-Utility Portion of Interest										
1139			427 NUTIL	-	-	-	-	-	-	-	-
1140			428 NUTIL	-	-	-	-	-	-	-	-
1141			429 NUTIL	-	-	-	-	-	-	-	-
1142			431 NUTIL	-	-	-	-	-	-	-	-
1143											
1144	Total Non-utility Interest										
				-	-	-	-	-	-	-	-
1145	Total Interest Deductions for Tax										
				85,221,543	43,131,763	14,595,740	26,052,299	-	260,187	977,947	203,607
1147											
1148											
1149	419	Interest & Dividends									
1150			GP	-	-	-	-	-	-	-	-
1151			SNP	-	-	-	-	-	-	-	-
1152	Total Operating Deductions for Tax										
				-	-	-	-	-	-	-	-
1153											

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C_Billing	C_Metering	C_Service
1154											
1155	41010	Deferred Income Tax - Federal-DR									
1156		GP	S	148,994,697	71,555,327	24,134,337	49,400,896	-	930,818	2,362,813.73	610,506
1157		P	TROJD	-	-	-	-	-	-	-	-
1158		PT	DGP	-	-	-	-	-	-	-	-
1159		LABOR	SO	2,117,172	855,855	101,893	719,852	-	115,204	207,266	117,102
1160		NP	SNP	6,706,346	3,394,171	1,148,584	2,050,136	-	20,475	76,957.63	16,022
1161		P	SE	3,167,857	3,167,857	-	-	-	-	-	-
1162		PT	SG	2,070,538	1,515,275	555,263	-	-	-	-	-
1163		GP	GPS	-	-	-	-	-	-	-	-
1164		DITEXP	DITEXP	-	-	-	-	-	-	-	-
1165		CUST	BADDEBT	-	-	-	-	-	-	-	-
1166		CSS_SYS	CN	-	-	-	-	-	-	-	-
1167		P	IBT	-	-	-	-	-	-	-	-
1168		D	SNPD	-	-	-	-	-	-	-	-
1169				163,056,610	80,488,485	25,940,077	52,170,883	-	1,066,497	2,647,037	743,630
1170											
1171											
1172											
1173	41110	Deferred Income Tax - Federal-CR									
1174		GP	S	(127,018,858)	(61,001,338)	(20,574,665)	(42,114,555)	-	(793,528)	(2,014,312.65)	(520,460)
1175		P	SE	(3,069,465)	(3,069,465)	-	-	-	-	-	-
1176		PT	DGP	-	-	-	-	-	-	-	-
1177		NP	SNP	(11,704,320)	(5,923,713)	(2,004,578)	(3,578,020)	-	(35,734)	(134,311.11)	(27,963)
1178		PT	SG	(140,850)	(103,078)	(37,772)	-	-	-	-	-
1179		GP	GPS	-	-	-	-	-	-	-	-
1180		LABOR	SO	(3,839,782)	(1,552,210)	(184,797)	(1,305,550)	-	(208,939)	(375,905)	(212,381)
1181		PT	SNPD	-	-	-	-	-	-	-	-
1182		CUST	CN	-	-	-	-	-	-	-	-
1183		P	SGCT	(96,104)	(96,104)	-	-	-	-	-	-
1184		DITEXP	DITEXP	-	-	-	-	-	-	-	-
1185		P	TROJD	(168,217)	(168,217)	-	-	-	-	-	-
1186		P	IBT	95,091	95,091	-	-	-	-	-	-
1187											
1188											
1189				(145,942,505)	(71,819,034)	(22,801,812)	(46,998,126)	-	(1,038,201)	(2,524,529)	(760,804)
1190											
1191		TOTAL DEFERRED INCOME TAXES		17,114,105	8,669,451	3,138,265	5,172,757	-	28,296	122,508	(17,174)
1192	SCHMAF	Additions - Flow Through									
1193		SCHMAF	S	-	-	-	-	-	-	-	-
1194		SCHMAF	SNP	-	-	-	-	-	-	-	-
1195		SCHMAF	SO	-	-	-	-	-	-	-	-
1196		SCHMAF	SE	-	-	-	-	-	-	-	-
1197		P	TROJP	-	-	-	-	-	-	-	-
1198		SCHMAF	SG	-	-	-	-	-	-	-	-
1199											
1200											
1201	SCHMAP	Additions - Permanent									
1202		P	S	-	-	-	-	-	-	-	-
1203		P	SE	11,251	11,251	-	-	-	-	-	-
1204		PTD	SNP	-	-	-	-	-	-	-	-
1205		SCHMAP-SO	SO	2,751,824	1,117,051	146,087	934,595	-	144,907	261,891	147,294
1206		SCHMAP	SG	-	-	-	-	-	-	-	-
1207		D	BADDEBT	-	0	-	-	-	-	-	-
1208				2,763,075	1,128,302	146,087	934,595	-	144,907	261,891	147,294
1209											
1210	SCHMAT	Additions - Temporary									
1211		SCHMAT-SITUS	S	40,918,848	20,686,020	2,235,679	12,109,123	-	1,516,548	2,829,949	1,541,529
1212		SCHMAT	SG	-	-	-	-	-	-	-	-
1213		D_SPLIT	CIAC	-	-	-	-	-	-	-	-
1214		SCHMAT-SNP	SNP	30,840,609	14,079,240	6,214,948	10,117,523	-	9,990	414,350	4,558
1215		P	TROJD	443,249	443,249	-	-	-	-	-	-
1216		SCHMAT-SNP	SG	-	-	-	-	-	-	-	-
1217		SCHMAT-SE	SE	8,087,969	7,960,590	10,290	72,697	-	11,634	20,931	11,826
1218		PT	SG	0	0	0	-	-	-	-	-
1219		SCHMAT-GPS	GPS	-	-	-	-	-	-	-	-
1220		SCHMAT-SO	SO	288,238	120,684	44,434	103,032	-	3,256	8,390	8,443
1221		SCHMAT-SNP	SNPD	-	-	-	-	-	-	-	-
1222		P	SGCT	253,232	253,232	-	-	-	-	-	-
1223		TAXDEPR	TAXDEPR	168,924,866	90,897,432	27,022,458	49,941,342	-	265,796	598,041	199,798
1224		BOOKDEPR	SCHMDEPR	-	-	-	-	-	-	-	-
1225				249,757,011	134,440,448	35,527,809	72,343,716	-	1,807,224	3,871,660	1,766,154
1226											
1227		TOTAL SCHEDULE - M ADDITIONS		252,520,066	135,568,749	35,673,896	73,278,310	-	1,952,131	4,133,551	1,913,449
1228											
1229	SCHMDF	Deductions - Flow Through									
1230		SCHMDF	S	-	-	-	-	-	-	-	-
1231		SCHMDF	DGP	-	-	-	-	-	-	-	-
1232		SCHMDF	DGU	-	-	-	-	-	-	-	-
1233											
1234	SCHMDP	Deductions - Permanent									
1235		SCHMDP	S	-	-	-	-	-	-	-	-
1236		P	SE	88,520	88,520	-	-	-	-	-	-
1237		SCHMDP	SNP	104,559	52,179	4,416	29,915	-	4,726	8,518	4,804
1238		SCHMDP	IBT	-	-	-	-	-	-	-	-
1239		P	SG	5,046,505	5,046,505	-	-	-	-	-	-
1240		SCHMDP-SO	SO	3,871,572	1,565,061	186,327	1,316,359	-	210,669	379,017	214,139
1241				9,091,157	6,732,265	190,743	1,346,274	-	215,395	387,536	218,943
1242											

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C_Billing	C_Metering	C_Service
1243	SCHMDT	Deductions - Temporary									
1244		SCHMDT-SITUS	S	-	-	-	-	-	-	-	-
1245		SCHMDT	BADDEBT	-	-	-	-	-	-	-	-
1246		SCHMDT-SNP	SNP	17,671,064	8,067,223	3,567,089	5,800,635	-	-	236,118	-
1247		SCHMDT	CN	-	-	-	-	-	-	-	-
1248		SCHMDT	TROJD	-	-	-	-	-	-	-	-
1249		SCHMDT	DGP	-	-	-	-	-	-	-	-
1250		P	SE	8,347,246	8,347,246	-	-	-	-	-	-
1251		PT	SG	4,877,687	3,569,622	1,308,065	-	-	-	-	-
1252		SCHMDT-GPS	GPS	-	-	-	-	-	-	-	-
1253		SCHMDT-SO	SO	(4,250,799)	(1,696,625)	(597,835)	(1,529,181)	-	(58,925)	(124,732)	(243,502)
1254		TAXDEPR	TAXDEPR	253,803,705	136,570,213	40,600,298	75,035,120	-	399,349	898,535	300,189
1255		SCHMDT-SNP	SNPD	-	-	-	-	-	-	-	-
1256				280,448,903	154,857,679	44,877,617	79,306,574	-	340,424	1,009,921	56,688
1257											
1258		TOTAL SCHEDULE - M DEDUCTIONS		289,540,060	161,589,944	45,068,360	80,652,848	-	555,819	1,397,457	275,631
1259											
1260		TOTAL SCHEDULE - M ADJUSTMENTS		(37,019,974)	(26,021,195)	(9,394,465)	(7,374,538)	-	1,396,312	2,736,094	1,637,818
1261											
1262		NOTE:									
1263		Positive Schedule M amounts increase taxable income and therefore reduce tax expense.									
1264		Negative Schedule M amounts decrease taxable income and therefore increase tax expense.									
1264	40911	State Income Taxes									
1265			IBT	4,998,356	1,776,357	793,032	1,901,266	0	121,862	276,017.92	129,822
1266			IBT	-	-	-	-	-	-	-	-
1267		Renewable Energy Credits	P	(160,228)	(160,228)	-	-	-	-	-	-
1268			IBT	-	-	-	-	-	-	-	-
1269		TOTAL STATE TAXES		4,838,128	1,616,129	793,032	1,901,266	0	121,862	276,018	129,822
1270											
1271											
1272		Calculation of Taxable Income:									
1273		Operating Revenues		1,178,664,091	748,567,329	124,177,385	249,946,185	0	15,860,190	27,180,920	12,932,082
1274		Operating Deductions:									
1275		O & M Expenses		730,249,555	543,987,570	57,599,341	87,804,653	0	12,312,070	18,423,587	10,122,334
1276		Depreciation Expense		147,845,235	74,721,230	19,263,620	50,682,215	-	240,694	2,686,782	250,695
1277		Amortization Expense		16,476,351	8,613,341	996,828	3,245,748	-	1,511,417	1,158,825	947,191
1278		Taxes Other Than Income		51,966,873	14,760,151	4,645,773	31,733,906	0	202,475	486,446	138,122
1279		Interest & Dividends (AFUDC-Equity)		-	-	-	-	-	-	-	-
1280		Misc Revenue & Expense		(2,076,505)	(2,457,569)	(84,959)	465,280	-	-	742	-
1281		Total Operating Deductions		944,461,509	639,624,723	82,423,603	173,931,802	0	14,266,656	22,756,382	11,458,342
1282		Other Deductions:									
1283		Interest Deductions		85,221,543	43,131,763	14,595,740	26,052,299	-	260,187	977,947	203,607
1284		Interest on PCRBS		-	-	-	-	-	-	-	-
1285		Schedule M Adjustments		(37,019,974)	(26,021,195)	(9,394,465)	(7,374,538)	-	1,396,312	2,736,094	1,637,818
1286											
1287		Income Before State Taxes		111,961,065	39,789,648	17,763,577	42,587,546	0	2,729,658	6,182,685	2,907,950
1288											
1289		State Income Taxes		4,838,128	1,616,129	793,032	1,901,266	0	121,862	276,018	129,822
1290											
1291		Total Taxable Income		107,122,937	38,173,519	16,970,546	40,686,281	0	2,607,796	5,906,667	2,778,129
1292											
1293		Tax Rate		35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%
1294											
1295		Federal Income Tax - Calculated		37,493,028	13,360,732	5,939,691	14,240,198	0	912,729	2,067,334	972,345
1296											
1297		Adjustments to Calculated Tax:									
1298		40910 PMI	P	-	-	-	-	-	-	-	-
1299		40910 Renewable Energy Credits	P	(13,734,625)	(13,734,625)	-	-	-	-	-	-
1300		40910	P	-	-	-	-	-	-	-	-
1301		40910	P	-	-	-	-	-	-	-	-
1302		Federal Income Tax		23,758,403	(373,894)	5,939,691	14,240,198	0	912,729	2,067,334	972,345
1303											
1304		TOTAL OPERATING EXPENSES		990,172,144	649,536,409	92,294,591	195,246,024	0	27,641,613	43,645,830	22,665,669
1305		310 Land and Land Rights									
1306			P	626,102	626,102	-	-	-	-	-	-
1307			P	9,352,738	9,352,738	-	-	-	-	-	-
1308			P	15,136,182	15,136,182	-	-	-	-	-	-
1309			P	-	-	-	-	-	-	-	-
1310			P	343,167	343,167	-	-	-	-	-	-
1311			P	25,458,188	25,458,188	-	-	-	-	-	-
1312											
1313		311 Structures and Improvements									
1314			P	63,129,897	63,129,897	-	-	-	-	-	-
1315			P	87,990,766	87,990,766	-	-	-	-	-	-
1316			P	50,407,163	50,407,163	-	-	-	-	-	-
1317			P	15,095,178	15,095,178	-	-	-	-	-	-
1318				216,623,004	216,623,004	-	-	-	-	-	-
1319											
1320		312 Boiler Plant Equipment									
1321			P	188,907,860	188,907,860	-	-	-	-	-	-
1322			P	171,356,803	171,356,803	-	-	-	-	-	-
1323			P	436,916,890	436,916,890	-	-	-	-	-	-
1324			P	87,834,914	87,834,914	-	-	-	-	-	-
1325				885,016,466	885,016,466	-	-	-	-	-	-
1326											

RESULTS OF OPERATIONS SUMMARY  
REVISED PROTOCOL

ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON										
				Normalized	Production	Transmission	Distribution	Ancillary	C_Billing	C_Metering	C_Service			
1327	314	Turbogenerator Units												
1328		P	SG	39,376,935	39,376,935	-	-	-	-	-	-	-	-	-
1329		P	SG	38,943,144	38,943,144	-	-	-	-	-	-	-	-	-
1330		P	SG	115,351,585	115,351,585	-	-	-	-	-	-	-	-	-
1331		P	SSGCH	18,360,092	18,360,092	-	-	-	-	-	-	-	-	-
1332				212,031,756	212,031,756	-	-	-	-	-	-	-	-	-
1333														
1334	315	Accessory Electric Equipment												
1335		P	SG	23,668,778	23,668,778	-	-	-	-	-	-	-	-	-
1336		P	SG	37,414,442	37,414,442	-	-	-	-	-	-	-	-	-
1337		P	SG	18,128,895	18,128,895	-	-	-	-	-	-	-	-	-
1338		P	SSGCH	17,787,235	17,787,235	-	-	-	-	-	-	-	-	-
1339				96,999,350	96,999,350	-	-	-	-	-	-	-	-	-
1340														
1341														
1342														
1343	316	Misc Power Plant Equipment												
1344		P	SG	1,321,215	1,321,215	-	-	-	-	-	-	-	-	-
1345		P	SG	1,423,373	1,423,373	-	-	-	-	-	-	-	-	-
1346		P	SG	3,367,144	3,367,144	-	-	-	-	-	-	-	-	-
1347		P	SSGCH	870,866	870,866	-	-	-	-	-	-	-	-	-
1348				6,982,599	6,982,599	-	-	-	-	-	-	-	-	-
1349														
1350	317	Steam Plant ARO												
1351		P	S	-	-	-	-	-	-	-	-	-	-	-
1352														
1353														
1354	SP	Unclassified Steam Plant - Account 300												
1355		P	SG	3,193	3,193	-	-	-	-	-	-	-	-	-
1356				3,193	3,193	-	-	-	-	-	-	-	-	-
1357														
1358														
1359		Total Steam Production Plant		1,443,114,557	1,443,114,557	-	-	-	-	-	-	-	-	-
1360														
1361														
1362		Summary of Steam Production Plant by Factor												
1363		S		-	-	-	-	-	-	-	-	-	-	-
1364		DGP		-	317,030,787	-	-	-	-	-	-	-	-	-
1365		DGU		-	346,481,266	-	-	-	-	-	-	-	-	-
1366		SG		1,302,823,105	639,311,052	-	-	-	-	-	-	-	-	-
1367		SSGCH		140,291,452	139,951,478	-	-	-	-	-	-	-	-	-
1368		Total Steam Production Plant by Factor		1,443,114,557	1,442,774,583	-	-	-	-	-	-	-	-	-
1369	320	Land and Land Rights												
1370		P	SG	-	-	-	-	-	-	-	-	-	-	-
1371		P	SG	-	-	-	-	-	-	-	-	-	-	-
1372														
1373														
1374	321	Structures and Improvements												
1375		P	SG	-	-	-	-	-	-	-	-	-	-	-
1376		P	SG	-	-	-	-	-	-	-	-	-	-	-
1377														
1378														
1379	322	Reactor Plant Equipment												
1380		P	SG	-	-	-	-	-	-	-	-	-	-	-
1381		P	SG	-	-	-	-	-	-	-	-	-	-	-
1382														
1383														
1384	323	Turbogenerator Units												
1385		P	SG	-	-	-	-	-	-	-	-	-	-	-
1386		P	SG	-	-	-	-	-	-	-	-	-	-	-
1387														
1388														
1389	324	Land and Land Rights												
1390		P	SG	-	-	-	-	-	-	-	-	-	-	-
1391		P	SG	-	-	-	-	-	-	-	-	-	-	-
1392														
1393														
1394	325	Misc. Power Plant Equipment												
1395		P	SG	-	-	-	-	-	-	-	-	-	-	-
1396		P	SG	-	-	-	-	-	-	-	-	-	-	-
1397														
1398														
1399														
1400	NP	Unclassified Nuclear Plant - Acct 300												
1401		P	SG	-	-	-	-	-	-	-	-	-	-	-
1402														
1403														
1404														
1405		Total Nuclear Production Plant		-	-	-	-	-	-	-	-	-	-	-

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C_Billing	C_Metering	C_Service
1406											
1407											
1408											
1409	Summary of Nuclear Production Plant by Factor										
1410	DGP			-	-	-	-	-	-	-	-
1411	DGU			-	-	-	-	-	-	-	-
1412	SG			-	-	-	-	-	-	-	-
1413											
1414	Total Nuclear Plant by Factor										
1415											
1416	330	Land and Land Rights									
1417		Pre-Merger Pacific	P	SG	2,856,173	2,856,173	-	-	-	-	-
1418		Pre-Merger Utah	P	SG	1,426,507	1,426,507	-	-	-	-	-
1419		Post-Merger Pacific	P	SG	839,284	839,284	-	-	-	-	-
1420		Post-Merger Utah	P	SG	170,856	170,856	-	-	-	-	-
1421					5,292,821	5,292,821	-	-	-	-	-
1422											
1423	331	Structures and Improvements									
1424		Pre-Merger Pacific	P	SG	5,766,366	5,766,366	-	-	-	-	-
1425		Pre-Merger Utah	P	SG	1,430,960	1,430,960	-	-	-	-	-
1426		Post-Merger Pacific	P	SG	13,558,847	13,558,847	-	-	-	-	-
1427		Post-Merger Utah	P	SG	1,908,432	1,908,432	-	-	-	-	-
1428					22,664,605	22,664,605	-	-	-	-	-
1429											
1430	332	Reservoirs, Dams & Waterways									
1431		Pre-Merger Pacific	P	SG	40,361,402	40,361,402	-	-	-	-	-
1432		Pre-Merger Utah	P	SG	5,394,836	5,394,836	-	-	-	-	-
1433		Post-Merger Pacific	P	SG	40,940,533	40,940,533	-	-	-	-	-
1434		Post-Merger Utah	P	SG	15,399,938	15,399,938	-	-	-	-	-
1435					102,096,709	102,096,709	-	-	-	-	-
1436											
1437	333	Water Wheel, Turbines, & Generators									
1438		Pre-Merger Pacific	P	SG	8,814,330	8,814,330	-	-	-	-	-
1439		Pre-Merger Utah	P	SG	2,489,505	2,489,505	-	-	-	-	-
1440		Post-Merger Pacific	P	SG	9,564,550	9,564,550	-	-	-	-	-
1441		Post-Merger Utah	P	SG	4,695,173	4,695,173	-	-	-	-	-
1442					25,563,558	25,563,558	-	-	-	-	-
1443											
1444	334	Accessory Electric Equipment									
1445		Pre-Merger Pacific	P	SG	1,261,923	1,261,923	-	-	-	-	-
1446		Pre-Merger Utah	P	SG	1,052,769	1,052,769	-	-	-	-	-
1447		Post-Merger Pacific	P	SG	9,953,668	9,953,668	-	-	-	-	-
1448		Post-Merger Utah	P	SG	1,248,855	1,248,855	-	-	-	-	-
1449					13,517,215	13,517,215	-	-	-	-	-
1450											
1451											
1452											
1453	335	Misc. Power Plant Equipment									
1454		Pre-Merger Pacific	P	SG	346,744	346,744	-	-	-	-	-
1455		Pre-Merger Utah	P	SG	52,248	52,248	-	-	-	-	-
1456		Post-Merger Pacific	P	SG	264,004	264,004	-	-	-	-	-
1457		Post-Merger Utah	P	SG	3,484	3,484	-	-	-	-	-
1458					666,480	666,480	-	-	-	-	-
1459											
1460	336	Roads, Railroads & Bridges									
1461		Pre-Merger Pacific	P	SG	1,246,626	1,246,626	-	-	-	-	-
1462		Pre-Merger Utah	P	SG	222,803	222,803	-	-	-	-	-
1463		Post-Merger Pacific	P	SG	2,156,202	2,156,202	-	-	-	-	-
1464		Post-Merger Utah	P	SG	159,154	159,154	-	-	-	-	-
1465					3,784,784	3,784,784	-	-	-	-	-
1466											
1467	337	Hydro Plant ARO	P	S	-	-	-	-	-	-	-
1468					-	-	-	-	-	-	-
1469					-	-	-	-	-	-	-
1470					-	-	-	-	-	-	-
1471	HP	Unclassified Hydro Plant - Acct 300									
1472		Pre-Merger Pacific	P	S	-	-	-	-	-	-	-
1473		Pre-Merger Utah	P	SG	-	-	-	-	-	-	-
1474		Post-Merger Pacific	P	SG	-	-	-	-	-	-	-
1475		Post-Merger Utah	P	SG	-	-	-	-	-	-	-
1476					-	-	-	-	-	-	-
1477					-	-	-	-	-	-	-
1478	Total Hydraulic Plant										
1479					173,586,171	173,586,171	-	-	-	-	-
1480	Summary of Hydraulic Plant by Factor										
1481	S				-	23,585,892	-	-	-	-	-
1482	SG				173,586,171	75,280,040	-	-	-	-	-
1483	DGP				-	60,653,564	-	-	-	-	-
1484	DGU				-	12,069,627	-	-	-	-	-
1485	Total Hydraulic Plant by Factor										
1486					173,586,171	171,589,123	-	-	-	-	-
1487	340	Land and Land Rights									
1488			P	SG	5,790,065	5,790,065	-	-	-	-	-
1489			P	SG	-	-	-	-	-	-	-
1490			P	SSGCT	-	-	-	-	-	-	-
1491					5,790,065	5,790,065	-	-	-	-	-
1492											



RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON								
				Normalized	Production	Transmission	Distribution	Ancillary	C. Billing	C. Metering	C. Service	
1493	341	Structures and Improvements										
1494		P	SG	25,267,861	25,267,861	-	-	-	-	-	-	-
1495		P	SG	44,642	44,642	-	-	-	-	-	-	-
1496		P	SSGCT	1,034,614	1,034,614	-	-	-	-	-	-	-
1497				26,347,117	26,347,117	-	-	-	-	-	-	-
1498												
1499	342	Fuel Holders, Producers & Accessories										
1500		P	SG	1,824,618	1,824,618	-	-	-	-	-	-	-
1501		P	SG	32,612	32,612	-	-	-	-	-	-	-
1502		P	SSGCT	573,361	573,361	-	-	-	-	-	-	-
1503				2,430,590	2,430,590	-	-	-	-	-	-	-
1504												
1505	343	Prime Movers										
1506		P	S	-	-	-	-	-	-	-	-	-
1507		P	SG	193,872	193,872	-	-	-	-	-	-	-
1508		P	SG	614,471,913	614,471,913	-	-	-	-	-	-	-
1509		P	SSGCT	13,835,327	13,835,327	-	-	-	-	-	-	-
1510				628,501,111	628,501,111	-	-	-	-	-	-	-
1511												
1512	344	Generators										
1513		P	S	-	-	-	-	-	-	-	-	-
1514		P	SG	-	-	-	-	-	-	-	-	-
1515		P	SG	56,966,647	56,966,647	-	-	-	-	-	-	-
1516		P	SSGCT	3,984,598	3,984,598	-	-	-	-	-	-	-
1517				60,951,245	60,951,245	-	-	-	-	-	-	-
1518												
1519	345	Accessory Electric Plant										
1520		P	SG	31,632,181	31,632,181	-	-	-	-	-	-	-
1521		P	SG	42,085	42,085	-	-	-	-	-	-	-
1522		P	SSGCT	794,829	794,829	-	-	-	-	-	-	-
1523				32,469,096	32,469,096	-	-	-	-	-	-	-
1524												
1525												
1526												
1527	346	Misc. Power Plant Equipment										
1528		P	SG	1,835,003	1,835,003	-	-	-	-	-	-	-
1529		P	SG	3,175	3,175	-	-	-	-	-	-	-
1530				1,838,178	1,838,178	-	-	-	-	-	-	-
1531												
1532	347	Other Production ARO										
1533		P	S	-	-	-	-	-	-	-	-	-
1534				-	-	-	-	-	-	-	-	-
1535				-	-	-	-	-	-	-	-	-
1536	OP	Unclassified Other Prod Plant-Acct 300										
1537		P	S	-	-	-	-	-	-	-	-	-
1538		P	SG	-	-	-	-	-	-	-	-	-
1539				-	-	-	-	-	-	-	-	-
1540				-	-	-	-	-	-	-	-	-
1541		Total Other Production Plant		758,327,403	758,327,403	-	-	-	-	-	-	-
1542												
1543		Summary of Other Production Plant by Factor										
1544		S		-	-	-	-	-	-	-	-	-
1545		DGU		-	316,387	-	-	-	-	-	-	-
1546		SG		738,104,674	737,788,287	-	-	-	-	-	-	-
1547		SSGCT		20,222,729	17,942,439	-	-	-	-	-	-	-
1548		Total of Other Production Plant by Factor		758,327,403	756,047,113	-	-	-	-	-	-	-
1549												
1550		Experimental Plant										
1551	103	Experimental Plant										
1552		P	SG	-	-	-	-	-	-	-	-	-
1553		Total Experimental Plant		-	-	-	-	-	-	-	-	-
1554												
1555		TOTAL PRODUCTION PLANT		2,375,028,130	2,375,028,130	-	-	-	-	-	-	-
1556	350	Land and Land Rights										
1557		T	SG	5,694,177	-	5,694,177	-	-	-	-	-	-
1558		T	SG	13,043,058	-	13,043,058	-	-	-	-	-	-
1559		T	SG	4,975,853	-	4,975,853	-	-	-	-	-	-
1560				23,713,088	-	23,713,088	-	-	-	-	-	-
1561												
1562	352	Structures and Improvements										
1563		T	S	-	-	-	-	-	-	-	-	-
1564		T	SG	2,067,906	-	2,067,906	-	-	-	-	-	-
1565		T	SG	4,925,338	-	4,925,338	-	-	-	-	-	-
1566		T	SG	10,991,643	-	10,991,643	-	-	-	-	-	-
1567				17,984,887	-	17,984,887	-	-	-	-	-	-
1568												
1569	353	Station Equipment										
1570		STEP_UP	SG	35,860,653	3,044,231	32,816,423	-	-	-	-	-	-
1571		STEP_UP	SG	52,408,043	4,448,948	47,959,095	-	-	-	-	-	-
1572		STEP_UP	SG	197,111,745	16,732,925	180,378,820	-	-	-	-	-	-
1573				285,380,440	24,226,103	261,154,337	-	-	-	-	-	-
1574												

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON								
				Normalized	Production	Transmission	Distribution	Ancillary	C Billing	C Metering	C Service	
1575	354 Towers and Fixtures											
1576		T	SG	42,014,691	-	42,014,691	-	-	-	-	-	-
1577		T	SG	33,979,760	-	33,979,760	-	-	-	-	-	-
1578		T	SG	38,902,038	-	38,902,038	-	-	-	-	-	-
1579				114,896,488	-	114,896,488	-	-	-	-	-	-
1580												
1581	355 Poles and Fixtures											
1582		T	SG	16,584,826	-	16,584,826	-	-	-	-	-	-
1583		T	SG	30,259,397	-	30,259,397	-	-	-	-	-	-
1584		T	SG	182,488,432	-	182,488,432	-	-	-	-	-	-
1585				229,332,655	-	229,332,655	-	-	-	-	-	-
1586												
1587	356 Clearing and Grading											
1588		T	SG	53,176,296	-	53,176,296	-	-	-	-	-	-
1589		T	SG	42,451,924	-	42,451,924	-	-	-	-	-	-
1590		T	SG	93,673,989	-	93,673,989	-	-	-	-	-	-
1591				189,302,209	-	189,302,209	-	-	-	-	-	-
1592												
1593	357 Underground Conduit											
1594		T	SG	1,712	-	1,712	-	-	-	-	-	-
1595		T	SG	24,633	-	24,633	-	-	-	-	-	-
1596		T	SG	836,291	-	836,291	-	-	-	-	-	-
1597				862,636	-	862,636	-	-	-	-	-	-
1598												
1599	358 Underground Conductors											
1600		T	SG	-	-	-	-	-	-	-	-	-
1601		T	SG	292,300	-	292,300	-	-	-	-	-	-
1602		T	SG	1,720,826	-	1,720,826	-	-	-	-	-	-
1603				2,013,126	-	2,013,126	-	-	-	-	-	-
1604												
1605	359 Roads and Trails											
1606		T	SG	500,725	-	500,725	-	-	-	-	-	-
1607		T	SG	118,396	-	118,396	-	-	-	-	-	-
1608		T	SG	2,442,528	-	2,442,528	-	-	-	-	-	-
1609				3,061,649	-	3,061,649	-	-	-	-	-	-
1610												
1611	TP Unclassified Trans Plant - Acct 300											
1612		T	SG	3,766,851	-	3,766,851	-	-	-	-	-	-
1613				3,766,851	-	3,766,851	-	-	-	-	-	-
1614												
1615	TS0 Unclassified Trans Sub Plant - Acct 300											
1616		T	SG	-	-	-	-	-	-	-	-	-
1617				-	-	-	-	-	-	-	-	-
1618				-	-	-	-	-	-	-	-	-
1619	TOTAL TRANSMISSION PLANT			870,314,028	24,226,103	846,087,925	-	-	-	-	-	-
1620	Summary of Transmission Plant by Factor											
1621	DGP			-	3,044,231	152,856,754	-	-	-	-	-	-
1622	DGU			-	4,448,948	173,053,900	-	-	-	-	-	-
1623	SG			870,314,028	16,732,925	520,177,270	-	-	-	-	-	-
1624	Total Transmission Plant by Factor			870,314,028	24,226,103	846,087,925	-	-	-	-	-	-
1625	360 Land and Land Rights											
1626		D	S	8,935,528	-	-	8,935,528	-	-	-	-	-
1627				8,935,528	-	-	8,935,528	-	-	-	-	-
1628												
1629	361 Structures and Improvements											
1630		D	S	14,747,335	-	-	14,747,335	-	-	-	-	-
1631				14,747,335	-	-	14,747,335	-	-	-	-	-
1632												
1633	362 Station Equipment											
1634		D	S	175,817,518	-	-	175,817,518	-	-	-	-	-
1635				175,817,518	-	-	175,817,518	-	-	-	-	-
1636												
1637	363 Storage Battery Equipment											
1638		D	S	-	-	-	-	-	-	-	-	-
1639				-	-	-	-	-	-	-	-	-
1640												
1641	364 Poles, Towers & Fixtures											
1642		D	S	406,460,463	-	-	406,460,463	-	-	-	-	-
1643				406,460,463	-	-	406,460,463	-	-	-	-	-
1644												
1645	365 Overhead Conductors											
1646		D	S	216,663,023	-	-	216,663,023	-	-	-	-	-
1647				216,663,023	-	-	216,663,023	-	-	-	-	-
1648												
1649	366 Underground Conduit											
1650		D	S	78,912,761	-	-	78,912,761	-	-	-	-	-
1651				78,912,761	-	-	78,912,761	-	-	-	-	-
1652												
1653												
1654												
1655												
1656	367 Underground Conductors											
1657		D	S	141,854,929	-	-	141,854,929	-	-	-	-	-
1658				141,854,929	-	-	141,854,929	-	-	-	-	-
1659												
1660	368 Line Transformers											
1661		D	S	357,264,059	-	-	357,264,059	-	-	-	-	-
1662				357,264,059	-	-	357,264,059	-	-	-	-	-
1663												
1664	369 Services											
1665		D	S	201,106,275	-	-	201,106,275	-	-	-	-	-
1666				201,106,275	-	-	201,106,275	-	-	-	-	-
1667												
1668	370 Meters											
1669		C_Meter	S	59,552,063	-	-	-	-	-	-	59,552,062.78	-
1670				59,552,063	-	-	-	-	-	-	59,552,063	-
1671												

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C Billing	C Metering	C Service
1672 371	Installations on Customers' Premises										
1673		D	S	2,436,751	-	-	2,436,751	-	-	-	-
1674				2,436,751	-	-	2,436,751	-	-	-	-
1675											
1676 372	Leased Property										
1677		D	S	-	-	-	-	-	-	-	-
1678											
1679											
1680 373	Street Lights										
1681		D	S	21,113,867	-	-	21,113,867	-	-	-	-
1682				21,113,867	-	-	21,113,867	-	-	-	-
1683											
1684 DP	Unclassified Dist Plant - Acct 300										
1685		D	S	5,406,560	-	-	5,406,560	-	-	-	-
1686				5,406,560	-	-	5,406,560	-	-	-	-
1687											
1688 DSO	Unclassified Dist Sub Plant - Acct 300										
1689		D	S	-	-	-	-	-	-	-	-
1690											
1691											
1692											
1693	TOTAL DISTRIBUTION PLANT			1,690,271,132	-	-	1,630,719,069	-	-	59,552,063	-
1694											
1695	Summary of Distribution Plant by Factor										
1696	S			1,690,271,132	-	-	1,630,719,069	-	-	59,552,063	-
1697											
1698	Total Distribution Plant by Factor			1,690,271,132	-	-	1,630,719,069	-	-	59,552,063	-
1699											
1700 389	Land and Land Rights										
1701		D_SPLIT	S	2,236,138	-	-	2,157,353.40	-	-	78,784.17	-
1702		B_Center	CN	349,476	-	-	-	-	260,479.91	-	88,996.38
1703		G-DGU	SG	89	61	28	-	-	-	-	-
1704		G-SG	SG	330	226	101	2	-	-	0	-
1705		LABOR	SO	1,581,933	639,487	76,134	537,867	-	86,080	154,867	87,498
1706				4,167,966	639,775	76,263	2,695,223	-	346,560	233,651	176,494
1707											
1707 390	Structures and Improvements										
1708		D_SPLIT	S	31,776,208	-	-	30,666,660.98	-	-	1,119,547.46	-
1709		G-DGP	SG	96,254	65,991	30,262	-	-	-	-	-
1710		G-DGU	SG	422,927	289,958	132,969	-	-	-	-	-
1711		B_Center	CN	3,746,120	-	-	-	-	2,792,146.15	-	953,973.36
1712		G-SG	SG	1,100,500	755,279	337,931	7,005	-	-	285	-
1713		LABOR	SO	28,764,883	11,626,039	1,384,368	9,780,243	-	1,565,221	2,816,008	1,591,004
1714				66,906,891	12,739,267	1,885,530	40,443,909	-	4,357,367	3,935,841	2,544,977
1715											
1716 391	Office Furniture & Equipment										
1717		D_SPLIT	S	5,541,584	-	-	5,346,341.15	-	-	195,242.49	-
1718		G-DGP	SG	73,494	50,387	23,107	-	-	-	-	-
1719		G-DGU	SG	75,529	51,782	23,746	-	-	-	-	-
1720		B_Center	CN	2,278,997	-	-	-	-	1,698,635.74	-	580,361.19
1721		G-SG	SG	1,226,204	841,550	376,531	7,805	-	-	318	-
1722		P	SE	29,788	29,788	-	-	-	-	-	-
1723		LABOR	SO	18,443,155	7,455,539	887,614	6,270,790	-	1,003,571	1,805,538	1,020,102
1724		G-SG	SSGCH	20,471	14,050	6,286	130	-	-	5	-
1725		G-SG	SSGCT	-	-	-	-	-	-	-	-
1726				27,689,221	8,443,097	1,317,284	11,625,067	-	2,702,207	2,001,103	1,600,464
1727											
1728 392	Transportation Equipment										
1729		D_SPLIT	S	19,740,286	-	-	19,044,790.98	-	-	695,494.77	-
1730		LABOR	SO	2,321,992	938,652	111,751	789,492	-	126,350	227,317	128,431
1731		G-SG	SG	4,134,948	2,837,835	1,269,721	26,320	-	-	1,071	-
1732		B_Center	CN	-	-	-	-	-	-	-	-
1733		G-DGU	SG	275,283	188,734	86,549	-	-	-	-	-
1734		P	SE	189,512	189,512	-	-	-	-	-	-
1735		G-DGP	SG	41,922	28,742	13,180	-	-	-	-	-
1736		G-SG	SSGCH	107,654	73,884	33,057	685	-	-	28	-
1737		G-SG	SSGCT	11,209	7,693	3,442	71	-	-	3	-
1738				26,822,807	4,265,052	1,517,701	19,861,360	-	126,350	923,914	128,431
1739											
1740 393	Stores Equipment										
1741		D_SPLIT	S	2,536,913	-	-	2,447,532.20	-	-	89,381.18	-
1742		G-DGP	SG	90,180	61,828	28,353	-	-	-	-	-
1743		G-DGU	SG	180,989	124,086	56,903	-	-	-	-	-
1744		LABOR	SO	139,750	56,493	6,726	47,516	-	7,604	13,681	7,730
1745		G-SG	SG	854,643	586,545	262,436	5,440	-	-	221	-
1746		G-SG	SSGCT	13,548	9,298	4,160	86	-	-	4	-
1747				3,816,022	838,249	358,577	2,500,574	-	7,604	103,287	7,730
1748											

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON								
				Normalized	Production	Transmission	Distribution	Ancillary	C_Billing	C_Metering	C_Service	
1749	394	Tools, Shop & Garage Equipment										
1750		D_SPLIT	S	9,951,080	-	-	9,600,481.10	-	-	-	350,598.99	-
1751		G-DGP	SG	755,084	517,685	237,400	-	-	-	-	-	-
1752		G-SG	SG	5,103,965	3,502,876	1,567,278	32,488	-	-	-	1,322	-
1753		LABOR	SO	1,175,219	475,076	56,560	399,582	-	63,949	-	115,051	65,002
1754		P	SE	1,777	1,777	-	-	-	-	-	-	-
1755		G-SG	SG	1,194,891	820,060	366,916	7,606	-	-	-	310	-
1756		G-SG	SSGCH	501,287	344,035	153,930	3,191	-	-	-	130	-
1757		G-SG	SSGCT	951	653	292	6	-	-	-	0	-
1758				18,684,254	5,662,161	2,382,375	10,043,354	-	63,949	-	467,412	65,002
1759												
1760	395	Laboratory Equipment										
1761		D_SPLIT	S	10,965,818	-	-	10,579,467.81	-	-	-	386,350.50	-
1762		G-DGP	SG	16,175	11,089	5,085	-	-	-	-	-	-
1763		G-DGU	SG	209,419	143,577	65,842	-	-	-	-	-	-
1764		LABOR	SO	1,565,910	633,010	75,363	532,419	-	85,208	-	153,299	86,611
1765		P	SE	10,610	10,610	-	-	-	-	-	-	-
1766		G-SG	SG	1,603,737	1,100,653	492,461	10,208	-	-	-	416	-
1767		G-SG	SSGCH	69,660	47,808	21,390	443	-	-	-	18	-
1768		G-SG	SSGCT	3,520	2,416	1,061	22	-	-	-	1	-
1769				14,444,849	1,949,164	661,221	11,122,561	-	85,208	-	540,084	86,611
1770												
1771	396	Power Operated Equipment										
1772		D_SPLIT	S	27,920,155	-	-	26,936,465.26	-	-	-	983,690.02	-
1773		G-DGP	SG	263,850	180,895	82,955	-	-	-	-	-	-
1774		G-SG	SG	7,340,110	5,037,554	2,253,932	46,722	-	-	-	1,902	-
1775		LABOR	SO	485,436	196,235	23,363	165,051	-	26,415	-	47,523	26,850
1776		G-DGU	SG	560,218	384,084	176,133	-	-	-	-	-	-
1777		P	SE	18,457	18,457	-	-	-	-	-	-	-
1778		P	SSGCT	-	-	-	-	-	-	-	-	-
1779		G-SG	SSGCH	270,577	185,698	83,086	1,722	-	-	-	70	-
1780				36,858,803	6,002,924	2,619,469	27,149,961	-	26,415	-	1,033,185	26,850
1781	397	Communication Equipment										
1782		COM_EQ	S	52,135,234	8,312,129	20,533,306	22,561,731	-	-	-	-	728,069
1783		COM_EQ	SG	1,156,436	184,375	455,459	500,452	-	-	-	-	16,150
1784		COM_EQ	SG	2,060,876	328,574	811,670	891,852	-	-	-	-	28,780
1785		COM_EQ	SO	13,670,229	2,179,499	5,383,979	5,915,846	-	-	-	-	190,905
1786		COM_EQ	CN	529,600	84,436	208,581	229,187	-	-	-	-	7,396
1787		COM_EQ	SG	16,096,145	2,586,273	6,339,418	6,965,671	-	-	-	-	224,783
1788		COM_EQ	SE	(55,098)	(8,785)	(21,700)	(23,844)	-	-	-	-	(769)
1789		COM_EQ	SSGCH	170,978	27,260	67,339	73,992	-	-	-	-	2,388
1790		COM_EQ	SSGCT	(77)	(12)	(30)	(33)	-	-	-	-	(1)
1791				85,764,323	13,673,749	33,778,021	37,114,854	-	-	-	-	1,197,699
1792												
1793	398	Misc. Equipment										
1794		D_SPLIT	S	464,639	-	-	448,268.65	-	-	-	16,370.28	-
1795		G-DGP	SG	5,023	3,444	1,579	-	-	-	-	-	-
1796		G-DGU	SG	5,170	3,544	1,625	-	-	-	-	-	-
1797		B_Center	CN	61,088	-	-	-	-	45,531.35	-	-	15,556.38
1798		LABOR	SO	926,556	374,555	44,592	315,035	-	50,418	-	90,707	51,248
1799		P	SE	417	417	-	-	-	-	-	-	-
1800		G-SG	SG	402,947	276,545	123,733	2,565	-	-	-	104	-
1801		G-SG	SSGCT	-	-	-	-	-	-	-	-	-
1802				1,865,839	658,504	171,530	765,868	-	95,949	-	107,182	66,805
1803												
1804	399	Coal Mine										
1805		P	SE	117,345,284	117,345,284	-	-	-	-	-	-	-
1806	MP	Unclassified Mine Plant	P	SE	-	-	-	-	-	-	-	-
1807				117,345,284	117,345,284	-	-	-	-	-	-	-
1808												
1809	399L	WIDCO Capital Lease										
1810		P	SE	-	-	-	-	-	-	-	-	-
1811												
1812												
1813		Remove Capital Leases										
1814												
1815												
1816	1011390	General Capital Leases										
1817		D_SPLIT	S	5,882,166	-	-	5,674,924.43	-	-	-	207,241.98	-
1818		P	SG	3,335,890	3,335,890	-	-	-	-	-	-	-
1819		LABOR	SO	3,646,055	1,473,897	175,474	1,239,682	-	198,397	-	356,939	201,666
1820				12,864,111	4,809,787	175,474	6,914,606	-	198,397	-	564,181	201,666
1821												
1822		Remove Capital Leases		(12,864,111)	(4,809,787)	(175,474)	(6,914,606)	-	(198,397)	-	(564,181)	(201,666)
1823												
1824												
1825	1011346	General Gas Line Capital Leases										
1826		P	SG	-	-	-	-	-	-	-	-	-
1827												
1828												
1829		Remove Capital Leases										
1830												
1831												
1832	GP	Unclassified Gen Plant - Acct 300										
1833		D_SPLIT	S	-	-	-	-	-	-	-	-	-
1834		LABOR	SO	42,655	17,243	2,053	14,503	-	2,321	-	4,176	2,359
1835		CUST	CN	-	-	-	-	-	-	-	-	-
1836		G-SG	SG	-	-	-	-	-	-	-	-	-
1837		G-DGP	SG	-	-	-	-	-	-	-	-	-
1838		G-DGU	SG	-	-	-	-	-	-	-	-	-
1839				42,655	17,243	2,053	14,503	-	2,321	-	4,176	2,359
1840												

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

				OREGON							
FERC	BUSINESS	PITA		Normalized	Production	Transmission	Distribution	Ancillary	C Billing	C Metering	C Service
ACCT	DESCRIPTION	FUNCTION	FACTOR								
1841	399G	Unclassified Gen Plant - Acct 300									
1842		D_SPLIT	S	-	-	-	-	-	-	-	-
1843		LABOR	SO	-	-	-	-	-	-	-	-
1844		G-SG	SG	-	-	-	-	-	-	-	-
1845		G-DGP	SG	-	-	-	-	-	-	-	-
1846		G-DGU	SG	-	-	-	-	-	-	-	-
1847				-	-	-	-	-	-	-	-
1848				-	-	-	-	-	-	-	-
1849		<b>TOTAL GENERAL PLANT</b>		<b>403,408,915</b>	<b>172,234,469</b>	<b>44,770,026</b>	<b>163,337,235</b>	<b>-</b>	<b>7,813,929</b>	<b>9,349,836</b>	<b>5,903,421</b>
1850											
1851		Summary of General Plant by Factor									
1852		S		169,150,222	8,312,129	20,533,306	135,454,017	-	-	4,122,702	728,069
1853		DGP		-	1,248,634	1,233,591	891,852	-	-	-	28,780
1854		DGU		-	2,334,461	1,722,382	899,458	-	-	310	28,780
1855		SG		48,683,228	17,505,337	13,023,542	7,104,227	-	-	5,640	224,783
1856		SO		72,763,772	26,255,574	8,380,745	25,842,976	-	3,189,119	5,737,584	3,432,556
1857		SE		117,540,747	117,587,061	(21,700)	(23,844)	-	-	-	(769)
1858		CN		6,965,280	84,436	208,581	229,187	-	4,796,793	-	1,646,283
1859		DGP		-	4,726,451	7,185,051	7,295,516	-	50,418	91,310	276,031
1860		SSGCT		29,150	11,839,198	1,362,769	9,756,402	-	1,565,221	2,816,009	1,590,234
1861		SG		1,140,627	8,427,573	1,168,001	6,885,214	-	1,089,651	1,960,509	1,109,988
1862		Less Capital Leases		(12,864,111)	(4,809,787)	(175,474)	(6,914,606)	-	(198,397)	(564,181)	(201,666)
1863		Total General Plant by Factor		<b>403,408,915</b>	<b>193,511,067</b>	<b>54,620,793</b>	<b>187,420,399</b>	<b>-</b>	<b>10,492,804</b>	<b>14,169,882</b>	<b>8,863,068</b>
1864		301 Organization									
1865		D_SPLIT	S	-	-	-	-	-	-	-	-
1866		LABOR	SO	-	-	-	-	-	-	-	-
1867		I-SG	SG	-	-	-	-	-	-	-	-
1868				-	-	-	-	-	-	-	-
1869		302 Franchise & Consent									
1870		D_SPLIT	S	-	-	-	-	-	-	-	-
1871		I-SG	SG	8,683,286	7,773,683	906,792	2,702	-	-	110	-
1872		I-DGP	SG	27,760,743	27,760,743	-	-	-	-	-	-
1873		I-DGU	SG	2,483,623	2,483,623	-	-	-	-	-	-
1874		I-DGP	SG	-	-	-	-	-	-	-	-
1875		I-DGU	SG	154,401	154,401	-	-	-	-	-	-
1876				<b>39,082,054</b>	<b>38,172,450</b>	<b>906,792</b>	<b>2,702</b>	<b>-</b>	<b>-</b>	<b>110</b>	<b>-</b>
1877											
1878		303 Miscellaneous Intangible Plant									
1879		D_SPLIT	S	540,701	-	-	521,650.98	-	-	19,050.12	-
1880		LABOR	SG	15,419,680	6,233,317	742,103	5,242,789	-	839,051	1,509,547	852,872
1881		LABOR	SO	112,055,116	45,297,637	5,392,878	38,099,454	-	6,097,400	10,969,909	6,197,838
1882		P	SE	907,133	907,133	-	-	-	-	-	-
1883		CSS_SYS	CN	36,145,444	-	-	-	-	19,879,994	6,506,180	9,759,270
1884		I-DGP	SG	62,485	62,485	-	-	-	-	-	-
1885		I-DGP	SSGCT	-	-	-	-	-	-	-	-
1886				<b>165,130,559</b>	<b>52,500,572</b>	<b>6,134,982</b>	<b>43,863,894</b>	<b>-</b>	<b>26,816,445</b>	<b>19,004,687</b>	<b>16,809,980</b>
1887		303 Less Non-Utility Plant									
1888		I-SITUS	S	-	-	-	-	-	-	-	-
1889				<b>165,130,559</b>	<b>52,500,572</b>	<b>6,134,982</b>	<b>43,863,894</b>	<b>-</b>	<b>26,816,445</b>	<b>19,004,687</b>	<b>16,809,980</b>
1890		IP Unclassified Intangible Plant - Acct 300									
1891		D_SPLIT	S	-	-	-	-	-	-	-	-
1892		I-SG	SG	-	-	-	-	-	-	-	-
1893		I-DGU	SG	-	-	-	-	-	-	-	-
1894		LABOR	SO	-	-	-	-	-	-	-	-
1895				-	-	-	-	-	-	-	-
1896				-	-	-	-	-	-	-	-
1897		<b>TOTAL INTANGIBLE PLANT</b>		<b>204,212,613</b>	<b>90,673,022</b>	<b>7,041,773</b>	<b>43,866,596</b>	<b>-</b>	<b>26,816,445</b>	<b>19,004,796</b>	<b>16,809,980</b>
1898											
1899		Summary of Intangible Plant by Factor									
1900		S		540,701	-	-	521,651	-	-	19,050	-
1901		DGP		-	27,823,228	-	-	-	-	-	-
1902		DGU		-	2,483,623	-	-	-	-	-	-
1903		SG		54,564,219	14,007,000	1,648,895	5,245,491	-	839,051	1,509,657	852,872
1904		SO		112,055,116	45,297,637	5,392,878	38,099,454	-	6,097,400	10,969,909	6,197,838
1905		CN		36,145,444	-	-	-	-	19,879,994	6,506,180	9,759,270
1906		SSGCT		-	62,485	-	-	-	-	-	-
1907		SSGCH		-	-	-	-	-	-	-	-
1908		SE		907,133	907,133	-	-	-	-	-	-
1909		Total Intangible Plant by Factor		<b>204,212,613</b>	<b>90,581,106</b>	<b>7,041,773</b>	<b>43,866,596</b>	<b>-</b>	<b>26,816,445</b>	<b>19,004,796</b>	<b>16,809,980</b>
1910		Summary of Unclassified Plant (Account 106)									
1911		DP		5,406,560	-	-	5,406,560	-	-	-	-
1912		DSO		-	-	-	-	-	-	-	-
1913		GP		42,655	17,243	2,053	14,503	-	2,321	4,176	2,359
1914		HP		-	-	-	-	-	-	-	-
1915		NP		-	-	-	-	-	-	-	-
1916		OP		-	-	-	-	-	-	-	-
1917		TP		3,766,851	-	3,766,851	-	-	-	-	-
1918		TSO		-	-	-	-	-	-	-	-
1919		IP		-	-	-	-	-	-	-	-
1920		MP		-	-	-	-	-	-	-	-
1921		SP		3,193	3,193	-	-	-	-	-	-
1922		Total Unclassified Plant by Factor		<b>9,219,258</b>	<b>20,436</b>	<b>3,768,904</b>	<b>5,421,062</b>	<b>-</b>	<b>2,321</b>	<b>4,176</b>	<b>2,359</b>
1923											
1924		<b>TOTAL ELECTRIC PLANT IN SERVICE</b>		<b>5,543,234,819</b>	<b>2,662,161,725</b>	<b>897,899,724</b>	<b>1,837,922,900</b>	<b>-</b>	<b>34,630,374</b>	<b>87,906,695</b>	<b>22,713,401</b>

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC	BUSINESS	PITA	OREGON	Production	Transmission	Distribution	Ancillary	C. Billing	C. Metering	C. Service	
ACCT	DESCRIPTION	FUNCTION	FACTOR	Normalized							
1925	Summary of Electric Plant by Factor										
1926	S			1,859,962,055	8,312,129	20,533,306	1,766,694,737	-	63,693,815	728,069	
1927	SE			118,447,880	118,494,194	(21,700)	(23,844)	-	-	(769)	
1928	DGU			-	368,134,313	174,776,282	899,458	-	310	28,780	
1929	DGP			-	409,800,443	154,090,345	891,852	-	-	28,780	
1930	SG			3,188,075,425	1,500,624,641	534,849,707	12,349,719	839,051	1,515,297	1,077,655	
1931	SO			184,818,888	71,553,211	13,773,624	63,942,430	9,286,519	16,707,493	9,630,394	
1932	CN			43,110,724	84,436	208,581	229,187	24,676,787	6,506,180	11,405,553	
1933	SE			-	4,726,451	7,185,051	7,295,516	50,418	91,310	276,031	
1934	DGU			141,432,079	12,746,331	1,362,769	9,756,402	1,565,221	2,816,009	1,590,234	
1935	DGP			20,251,879	99,008,679	8,209,774	50,751,909	27,906,096	20,965,306	17,919,968	
1936	Less Capital Leases										
1937				(12,864,111)	(4,809,787)	(175,474)	(6,914,606)	(198,397)	(564,181)	(201,665)	
1938	105	Plant Held For Future Use									
1939		D_SPLIT	S	-	-	-	-	-	-	-	
1940		P	SG	-	-	-	-	-	-	-	
1941		T	SG	(2,398,306)	-	(2,398,306)	-	-	-	-	
1942		P	SG	2,398,305	2,398,305	-	-	-	-	-	
1943		P	SE	0	0	-	-	-	-	-	
1944		G	SG	-	-	-	-	-	-	-	
1945				-	-	-	-	-	-	-	
1946				-	-	-	-	-	-	-	
1947				(0)	2,398,305	(2,398,306)	-	-	-	-	
1948				-	-	-	-	-	-	-	
1949	114	Electric Plant Acquisition Adjustments									
1950		P	S	-	-	-	-	-	-	-	
1951		P	SG	38,335,325	38,335,325	-	-	-	-	-	
1952		P	SG	3,913,465	3,913,465	-	-	-	-	-	
1953				42,248,790	42,248,790	-	-	-	-	-	
1954				-	-	-	-	-	-	-	
1955	115	Accum Provision for Asset Acquisition Adjustments									
1956		P	S	-	-	-	-	-	-	-	
1957		P	SG	(20,661,458)	(20,661,458)	-	-	-	-	-	
1958		P	SG	(3,019,185)	(3,019,185)	-	-	-	-	-	
1959				(23,680,643)	(23,680,643)	-	-	-	-	-	
1960				-	-	-	-	-	-	-	
1961	120	Nuclear Fuel									
1962		P	SE	-	-	-	-	-	-	-	
1963				-	-	-	-	-	-	-	
1964				-	-	-	-	-	-	-	
1965	124	Weatherization									
1966		DSM	S	0	-	-	0	-	-	-	
1967		DSM	SO	(696)	-	-	(696)	-	-	-	
1968				(696)	-	-	(696)	-	-	-	
1969				-	-	-	-	-	-	-	
1970	182W	Weatherization									
1971		DSM	S	-	-	-	-	-	-	-	
1972		DSM	SG	-	-	-	-	-	-	-	
1973		DSM	SGCT	-	-	-	-	-	-	-	
1974		DSM	SO	-	-	-	-	-	-	-	
1975				-	-	-	-	-	-	-	
1976				-	-	-	-	-	-	-	
1977	186W	Weatherization									
1978		DSM	S	-	-	-	-	-	-	-	
1979		DSM	CN	-	-	-	-	-	-	-	
1980		DSM	CNP	-	-	-	-	-	-	-	
1981		DSM	SG	-	-	-	-	-	-	-	
1982		DSM	SO	-	-	-	-	-	-	-	
1983				-	-	-	-	-	-	-	
1984				-	-	-	-	-	-	-	
1985		Total Weatherization									
1986				(696)	-	-	(696)	-	-	-	
1987	151	Fuel Stock									
1988		P	DEU	-	-	-	-	-	-	-	
1989		P	SE	39,313,195	39,313,195	-	-	-	-	-	
1990		P	SSECT	-	-	-	-	-	-	-	
1991		P	SSECH	2,336,814	2,336,814	-	-	-	-	-	
1992				41,650,008	41,650,008	-	-	-	-	-	
1993				-	-	-	-	-	-	-	
1994	152	Fuel Stock - Undistributed									
1995		P	SE	-	-	-	-	-	-	-	
1996				-	-	-	-	-	-	-	
1997				-	-	-	-	-	-	-	
1998	25316	DG&T Working Capital Deposit									
1999		P	SE	(218,517)	(218,517)	-	-	-	-	-	
2000				(218,517)	(218,517)	-	-	-	-	-	
2001				-	-	-	-	-	-	-	
2002	25317	DG&T Working Capital Deposit									
2003		P	SE	(423,752)	(423,752)	-	-	-	-	-	
2004				(423,752)	(423,752)	-	-	-	-	-	
2005				-	-	-	-	-	-	-	
2006	25319	Provo Working Capital Deposit									
2007		P	SE	-	-	-	-	-	-	-	
2008				-	-	-	-	-	-	-	
2009				-	-	-	-	-	-	-	
2010		Total Fuel Stock									
				41,007,740	41,007,740	-	-	-	-	-	

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON									
				Normalized	Production	Transmission	Distribution	Ancillary	C Billing	C Metering	C Service		
2011	154	Materials and Supplies											
2012		MSS	S	28,381,534	22,799,225	1,917,248	3,540,802	-	-	-	124,258	-	-
2013		MSS	SG	857,268	688,654	57,911	106,950	-	-	-	3,753	-	-
2014		MSS	SE	1,103,637	886,565	74,554	137,687	-	-	-	4,832	-	-
2015		MSS	SO	(727)	(584)	(48)	(91)	-	-	-	(3)	-	-
2016		MSS	SNPPS	20,177,057	16,208,471	1,363,014	2,517,234	-	-	-	88,338	-	-
2017		MSS	SNPPH	(5,666)	(4,551)	(383)	(707)	-	-	-	(26)	-	-
2018		MSS	SNPD	(1,119,929)	(899,653)	(75,654)	(139,719)	-	-	-	(4,903)	-	-
2019		MSS	SNPT	-	-	-	-	-	-	-	-	-	-
2020		MSS	SG	-	-	-	-	-	-	-	-	-	-
2021		MSS	SG	-	-	-	-	-	-	-	-	-	-
2022		MSS	SSGCT	-	-	-	-	-	-	-	-	-	-
2023		MSS	SNPP	-	-	-	-	-	-	-	-	-	-
2024		MSS	SSGCH	-	-	-	-	-	-	-	-	-	-
2025				49,393,174	39,678,127	3,336,641	6,162,156	-	-	-	216,250	-	-
2026				-	-	-	-	-	-	-	-	-	-
2027	163	Stores Expense Undistributed											
2028		MSS	SO	-	-	-	-	-	-	-	-	-	-
2029				-	-	-	-	-	-	-	-	-	-
2030				-	-	-	-	-	-	-	-	-	-
2031				-	-	-	-	-	-	-	-	-	-
2032	25318	Provo Working Capital Deposit											
2033		MSS	SNPPS	(73,601)	(59,125)	(4,972)	(9,182)	-	-	-	(322)	-	-
2034				-	-	-	-	-	-	-	-	-	-
2035				(73,601)	(59,125)	(4,972)	(9,182)	-	-	-	(322)	-	-
2036				-	-	-	-	-	-	-	-	-	-
2037		Total Materials & Supplies		49,319,573	39,619,002	3,331,669	6,152,974	-	-	-	215,928	-	-
2038				-	-	-	-	-	-	-	-	-	-
2039	165	Prepayments											
2040		LABOR	S	2,900,866	1,172,658	139,610	986,313	-	157,849	-	283,987	160,449	-
2041		GP	GPS	46,688	22,422	7,563	15,479.95	-	292	-	740.40	191	-
2042		PT	SG	810,462	593,118	217,344	-	-	-	-	-	-	-
2043		P	SE	696,368	696,368	-	-	-	-	-	-	-	-
2044		LABOR	SO	7,746,634	3,131,532	372,822	2,633,905	-	421,528	-	758,376	428,471	-
2045				12,201,019	5,616,099	737,339	3,635,698	-	579,668	-	1,043,103	589,111	-
2046				-	-	-	-	-	-	-	-	-	-
2047	182M	Misc Regulatory Assets											
2048		DDS2	S	(1,286,545)	(652,564)	(237,478)	(364,614)	-	(16,171)	-	(15,719)	-	-
2049		DEFSG	SG	1,549,591	375,712	1,173,879	-	-	-	-	-	-	-
2050		P	SGCT	2,750,587	2,750,587	-	-	-	-	-	-	-	-
2051		DEFSG	SG-P	(736,419)	(178,551)	(557,867)	-	-	-	-	-	-	-
2052		P	SE	-	-	-	-	-	-	-	-	-	-
2053		P	SSGCT	-	-	-	-	-	-	-	-	-	-
2054		LABOR	SO	1,997,962	807,665	96,156	679,320	-	108,718	-	195,595	110,509	-
2055				4,275,176	3,102,849	474,689	314,706	-	92,547	-	179,876	110,509	-
2056				-	-	-	-	-	-	-	-	-	-
2057	186M	Misc Deferred Debits											
2058		LABOR	S	-	-	-	-	-	-	-	-	-	-
2059		P	SG	-	-	-	-	-	-	-	-	-	-
2060		P	SG	-	-	-	-	-	-	-	-	-	-
2061		DEFSG	SG	13,929,377	3,377,304	10,552,073	-	-	-	-	-	-	-
2062		LABOR	SO	64,435	26,047	3,101	21,908	-	3,506	-	6,308	3,564	-
2063		P	SE	1,864,721	1,864,721	-	-	-	-	-	-	-	-
2064		P	SNPPS	-	-	-	-	-	-	-	-	-	-
2065		GP	EXCTAX	-	-	-	-	-	-	-	-	-	-
2066				15,858,533	5,268,073	10,555,174	21,908	-	3,506	-	6,308	3,564	-
2067				-	-	-	-	-	-	-	-	-	-
2068		Working Capital											
2069	CWC	Cash Working Capital											
2070		CWC	S	11,608,463	8,017,413	987,560	1,942,539.85	0	193,984	-	304,286.12	162,679	-
2071		CWC	SO	-	-	-	-	-	-	-	-	-	-
2072		CWC	SE	-	-	-	-	-	-	-	-	-	-
2073				11,608,463	8,017,413	987,560	1,942,540	0	193,984	-	304,286	162,679	-
2074				-	-	-	-	-	-	-	-	-	-
2075	OWC	Other Working Capital											
2076	131	Cash	GP	(0)	(0)	(0)	(0.00)	-	(0)	-	(0.00)	(0)	-
2077	135	Working Funds	GP	662	318	107	219.37	-	4	-	10.49	3	-
2078	141	Notes Receivable	GP	131,637	63,219	21,323	43,645.71	-	822	-	2,087.55	539	-
2079	143	Other Accounts Receivable	LABOR	4,488,236	1,814,344	216,005	1,526,029	-	244,224	-	439,387	248,247	-
2080	232	Accounts Payable	LABOR	-	-	-	-	-	-	-	-	-	-
2081	232	Accounts Payable	LABOR	(1,203,907)	(486,672)	(57,940)	(409,336)	-	(65,510)	-	(117,859)	(66,589)	-
2082	232	Accounts Payable	P	(283,338)	(283,338)	-	-	-	-	-	-	-	-
2083	253	Deferred Hedge	P	0	0	-	-	-	-	-	-	-	-
2084	2533	Other Deferred Credits - Mt P	S	-	-	-	-	-	-	-	-	-	-
2085	2533	Other Deferred Credits - Mt P	SE	(1,431,645)	(1,431,645)	-	-	-	-	-	-	-	-
2086	230	Asset Retirement Obligor P	SE	(608,850)	(608,850)	-	-	-	-	-	-	-	-
2087	230	Asset Retirement Obligor P	S	-	-	-	-	-	-	-	-	-	-
2088	254105	ARO Regulatory Liability	P	-	-	-	-	-	-	-	-	-	-
2089	254105	ARO Regulatory Liability	P	(117,221)	(117,221)	-	-	-	-	-	-	-	-
2090	2533	Cholla Reclamation	P	-	-	-	-	-	-	-	-	-	-
2091				975,573	(1,049,846)	179,495	1,160,558	-	179,541	-	323,625	182,200	-
2092				-	-	-	-	-	-	-	-	-	-
2093		Total Working Capital		12,584,036	6,967,567	1,167,055	3,103,098	0	373,525	-	627,912	344,880	-
2094		Miscellaneous Rate Base											
2095	18221	Unrec Plant & Reg Study Costs											
2096		P	S	-	-	-	-	-	-	-	-	-	-
2097				-	-	-	-	-	-	-	-	-	-
2098				-	-	-	-	-	-	-	-	-	-
2099				-	-	-	-	-	-	-	-	-	-

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C. Billing	C. Metering	C. Service
2100	18222	Nuclear Plant - Trojan									
2101			P	(175,546)	(175,546)	-	-	-	-	-	-
2102			P	561,363	561,363	-	-	-	-	-	-
2103			P	820,434	820,434	-	-	-	-	-	-
2104				1,206,251	1,206,251	-	-	-	-	-	-
2105											
2106											
2107											
2108	1869	Misc Deferred Debits-Trojan									
2109			P	-	-	-	-	-	-	-	-
2110			P	-	-	-	-	-	-	-	-
2111				-	-	-	-	-	-	-	-
2112				-	-	-	-	-	-	-	-
2113		TOTAL MISCELLANEOUS RATE BASE		1,206,251	1,206,251	-	-	-	-	-	-
2114											
2115		TOTAL RATE BASE ADDITIONS		155,019,777	123,754,033	13,867,620	13,227,687	0	1,049,246	2,073,127	1,048,063
2116	235	Customer Service Deposits									
2117			CUST	-	-	-	-	-	-	-	-
2118			CUST	-	-	-	-	-	-	-	-
2119				-	-	-	-	-	-	-	-
2120				-	-	-	-	-	-	-	-
2121	2281	Prov for Property Insurance LABOR		-	-	-	-	-	-	-	-
2122	2282	Prov for Injuries & Damage LABOR		(2,306,013)	(932,193)	(110,982)	(784,059)	-	(125,480)	(225,753)	(127,547)
2123	2283	Prov for Pensions and Benf LABOR		(5,654,188)	(2,285,673)	(272,119)	(1,922,460)	-	(307,669)	(553,531)	(312,737)
2124	2283	Prov for Pensions and Benf LABOR		-	-	-	-	-	-	-	-
2125	254	Reg Liabilities - Insurance F LABOR		(148,400)	(59,990)	(7,142)	(50,457)	-	(8,075)	(14,528)	(8,208)
2126				(8,108,601)	(3,277,855)	(390,243)	(2,756,976)	-	(441,224)	(793,811)	(448,492)
2127											
2128	22844	Accum Hydro Relicensing Obligation		-	-	-	-	-	-	-	-
2129			P	-	-	-	-	-	-	-	-
2130			P	-	-	-	-	-	-	-	-
2131				-	-	-	-	-	-	-	-
2132				-	-	-	-	-	-	-	-
2133	22843	Accum Misc Oper Prov-Tro P		(643,113)	(643,113)	-	-	-	-	-	-
2134	230	Asset Retirement Obligation P		(608,780)	(608,780)	-	-	-	-	-	-
2135	254105	ARO Regulatory Liability P		(214,399)	(214,399)	-	-	-	-	-	-
2136	254			-	-	-	-	-	-	-	-
2137			P	(1,466,292)	(1,466,292)	-	-	-	-	-	-
2138				-	-	-	-	-	-	-	-
2139	252	Customer Advances for Construction									
2140			D_SPLIT	(1,593,020)	-	-	(1,536,894.71)	-	-	(56,125.70)	-
2141			D_SPLIT	-	-	-	-	-	-	-	-
2142			T	(1,906,223)	-	(1,906,223)	-	-	-	-	-
2143			D_SPLIT	-	-	-	-	-	-	-	-
2144			D_SPLIT	-	-	-	-	-	-	-	-
2145				(3,499,244)	-	(1,906,223)	(1,536,895)	-	-	(56,126)	-
2146				-	-	-	-	-	-	-	-
2147	25398	SO2 Emissions									
2148			P	(3,871,633)	(3,871,633)	-	-	-	-	-	-
2149				(3,871,633)	(3,871,633)	-	-	-	-	-	-
2150				-	-	-	-	-	-	-	-
2151	25399	Other Deferred Credits									
2152			D_SPLIT	(497,650)	-	-	(480,116.81)	-	-	(17,533.34)	-
2153			LABOR	(669,708)	(270,726)	(32,231)	(227,705.01)	-	(36,442)	(65,562.71)	(37,042)
2154			P	(5,979,876)	(5,979,876)	-	-	-	-	-	-
2155			P	(588,737)	(588,737)	-	-	-	-	-	-
2156				(7,735,971)	(6,839,338)	(32,231)	(707,822)	-	(36,442)	(83,096)	(37,042)
2157				-	-	-	-	-	-	-	-
2158	190	Accumulated Deferred Income Taxes									
2159			D_SPLIT	811,860	-	-	783,256.35	-	-	28,603.66	-
2160			P	34,745	34,745	-	-	-	-	-	-
2161			LABOR	3,110,735	1,257,497	149,710	1,057,670	-	169,268	304,533	172,057
2162			P	200	200	-	-	-	-	-	-
2162			PTD	82,697	39,794	14,582	27,323	-	-	998	-
2162			P	-	-	-	-	-	-	-	-
2162			P	-	-	-	-	-	-	-	-
2162			CUST	1,154,288	-	-	-	-	1,154,288	-	-
2164			P	36	36	-	-	-	-	-	-
2165			P	11,600,625	11,600,625	-	-	-	-	-	-
2166			P	4,424,890	4,424,890	-	-	-	-	-	-
2167			LABOR	(0)	(0)	(0)	(0)	-	(0)	(0)	(0)
2168			D_SPLIT	603,426	-	-	582,165.54	-	-	21,260.04	-
2169			P	-	-	-	-	-	-	-	-
2170				21,823,502	17,357,788	164,293	2,450,415	-	1,323,556	355,395	172,057
2171				-	-	-	-	-	-	-	-
2172	281	Accumulated Deferred Income Taxes									
2173			P	-	-	-	-	-	-	-	-
2174			PT	-	-	-	-	-	-	-	-
2175			T	-	-	-	-	-	-	-	-
2176				-	-	-	-	-	-	-	-
2177				-	-	-	-	-	-	-	-
2178	282	Accumulated Deferred Income Taxes									
2179			GP	(546,068,247)	(262,251,562)	(88,452,780)	(181,055,172.60)	-	(3,411,464)	(8,659,754.88)	(2,237,514)
2180			ACCMDIT	(0)	(0)	(0)	(0)	-	(0)	(0)	-
2181			PT	(2,753,161)	(2,014,837)	(738,324)	-	-	-	-	-
2182			LABOR	(4,126,194)	(1,667,990)	(198,581)	(1,402,932)	-	(224,524)	(403,944)	(228,222)
2183			LABOR	-	-	-	-	-	-	-	-
2184			P	(4,070,886)	(4,070,986)	-	-	-	-	-	-
2185			P	(4,924,377)	(4,924,377)	-	-	-	-	-	-
2186				(561,942,966)	(274,929,752)	(89,389,685)	(182,458,105)	-	(3,635,988)	(9,063,699)	(2,465,737)
2187				-	-	-	-	-	-	-	-



RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON								
				Normalized	Production	Transmission	Distribution	Ancillary	C. Billing	C. Metering	C. Service	
2188	283	Accumulated Deferred Income Taxes										
2189		GP	S	(2,929,453)	(1,406,882)	(474,516)	(971,293.76)	-	(18,301)	(46,456.37)	(12,003)	
2190		P	SG	(1,063,182)	(1,063,182)	-	-	-	-	-	-	
2191		P	SE	(3,004,988)	(3,004,988)	-	-	-	-	-	-	
2192		LABOR	SO	2,465,280	996,575	118,647	838,211	-	134,146	241,345	136,356	
2193		GP	GPS	(3,965,082)	(1,904,247)	(642,269)	(1,314,668.40)	-	(24,771)	(62,879.76)	(16,247)	
2194		LABOR	SNP	(2,179,696)	(881,130)	(104,902)	(741,110)	-	(118,607)	(213,387)	(120,560)	
2195		P	TROJD	384,207	384,207	-	-	-	-	-	-	
2196		P	SSGCT	-	-	-	-	-	-	-	-	
2197		P	SGCT	(592,272)	(592,272)	-	-	-	-	-	-	
2198		P	SSGCH	-	-	-	-	-	-	-	-	
2199				(10,885,187)	(7,471,919)	(1,103,041)	(2,188,862)	-	(27,533)	(81,378)	(12,455)	
2200												
2201		TOTAL ACCUMULATED DEF INCOME TAX		(551,004,650)	(265,043,883)	(90,328,433)	(182,196,552)	-	(2,339,965)	(8,789,682)	(2,306,135)	
2202	255	Accumulated Investment Tax Credit										
2203		LABOR	S	-	-	-	-	-	-	-	-	
2204		LABOR	ITC84	(1,032,278)	(417,293)	(49,680)	(350,981)	-	(56,171)	(101,057)	(57,096)	
2205		LABOR	ITC85	(1,830,931)	(740,143)	(88,117)	(622,528)	-	(99,629)	(179,243)	(101,270)	
2206		LABOR	ITC86	(876,373)	(354,269)	(42,177)	(297,972)	-	(47,687)	(85,795)	(48,473)	
2207		LABOR	ITC88	(126,948)	(51,318)	(6,110)	(43,163)	-	(6,908)	(12,428)	(7,022)	
2208		LABOR	ITC89	(257,725)	(104,184)	(12,404)	(87,628)	-	(14,024)	(25,231)	(14,255)	
2209		LABOR	ITC90	(48,049)	(19,423)	(2,312)	(16,337)	-	(2,815)	(4,704)	(2,658)	
2210		LABOR	DGU	-	-	-	-	-	-	-	-	
2211				(4,172,305)	(1,686,630)	(200,801)	(1,418,610)	-	(227,033)	(408,458)	(230,773)	
2212												
2213		TOTAL RATE BASE DEDUCTIONS		(579,858,695)	(282,185,631)	(92,857,931)	(188,616,855)	-	(3,044,663)	(10,131,173)	(3,022,441)	
2214												
2215												
2216												
2217	108SP	Steam Prod Plant Accumulated Depr										
2218		P	S	-	-	-	-	-	-	-	-	
2219		P	SG	(239,306,334)	(239,306,334)	-	-	-	-	-	-	
2220		P	SG	(256,903,473)	(256,903,473)	-	-	-	-	-	-	
2221		P	SG	(168,131,349)	(168,131,349)	-	-	-	-	-	-	
2222		P	SSGCH	(45,187,416)	(45,187,416)	-	-	-	-	-	-	
2223				(709,528,572)	(709,528,572)	-	-	-	-	-	-	
2224												
2225	108NP	Nuclear Prod Plant Accumulated Depr										
2226		P	SG	-	-	-	-	-	-	-	-	
2227		P	SG	-	-	-	-	-	-	-	-	
2228		P	SG	-	-	-	-	-	-	-	-	
2229				-	-	-	-	-	-	-	-	
2230				-	-	-	-	-	-	-	-	
2231				-	-	-	-	-	-	-	-	
2232	108HP	Hydraulic Prod Plant Accum Depr										
2233		P	S	-	-	-	-	-	-	-	-	
2234		Pre-Merger Pacific	P	(40,482,847)	(40,482,847)	-	-	-	-	-	-	
2235		Pre-Merger Utah	P	(7,934,116)	(7,934,116)	-	-	-	-	-	-	
2236		Post-Merger Pacific	P	(14,481,737)	(14,481,737)	-	-	-	-	-	-	
2237		Post-Merger Utah	P	(4,351,199)	(4,351,199)	-	-	-	-	-	-	
2238				(67,249,900)	(67,249,900)	-	-	-	-	-	-	
2239												
2240	108OP	Other Production Plant - Accum Depr										
2241		P	S	-	-	-	-	-	-	-	-	
2242		P	SG	(360,488)	(360,488)	-	-	-	-	-	-	
2243		P	SG	-	-	-	-	-	-	-	-	
2244		P	SG	(62,403,780)	(62,403,780)	-	-	-	-	-	-	
2245		P	SSGCT	(5,500,320)	(5,500,320)	-	-	-	-	-	-	
2246				(68,264,588)	(68,264,588)	-	-	-	-	-	-	
2247												
2248	108EP	Experimental Plant - Accum Depr										
2249		P	SG	-	-	-	-	-	-	-	-	
2250		P	SG	-	-	-	-	-	-	-	-	
2251				-	-	-	-	-	-	-	-	
2252				-	-	-	-	-	-	-	-	
2253		TOTAL PRODUCTION PLANT DEPRECIATION		(845,043,059)	(845,043,059)	-	-	-	-	-	-	
2254												
2255		Summary of Prod Plant Depreciation by Factor										
2256		S		-	-	-	-	-	-	-	-	
2257		DGP		-	(279,789,181)	-	-	-	-	-	-	
2258		DGU		-	(265,198,077)	-	-	-	-	-	-	
2259		SG		(794,355,324)	(249,368,066)	-	-	-	-	-	-	
2260		SSGCH		(45,187,416)	(45,187,416)	-	-	-	-	-	-	
2261		SSGCT		(5,500,320)	(5,500,320)	-	-	-	-	-	-	
2262		Total of Prod Plant Depreciation by Factor		(845,043,059)	(845,043,059)	-	-	-	-	-	-	

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C Billing	C Metering	C Service
2263											
2264											
2265	108TP	Transmission Plant Accumulated Depr									
2266		T_Split	SG	(105,686,236)	(2,941,887.19)	(102,744,349.02)	-	-	-	-	-
2267		T_Split	SG	(105,997,635)	(2,950,555)	(103,047,079)	-	-	-	-	-
2268		T_Split	SG	(107,612,019)	(2,995,493.36)	(104,616,525.31)	-	-	-	-	-
2269	TOTAL TRANS PLANT ACCUM DEPR			(319,295,890)	(8,887,936)	(310,407,954)	-	-	-	-	-
2270	108360	Land and Land Rights									
2271		D	S	(1,602,022)	-	-	(1,602,022)	-	-	-	-
2272				(1,602,022)	-	-	(1,602,022)	-	-	-	-
2273											
2274	108361	Structures and Improvements									
2275		D	S	(2,891,139)	-	-	(2,891,139)	-	-	-	-
2276				(2,891,139)	-	-	(2,891,139)	-	-	-	-
2277											
2278	108362	Station Equipment									
2279		D	S	(50,927,189)	-	-	(50,927,189)	-	-	-	-
2280				(50,927,189)	-	-	(50,927,189)	-	-	-	-
2281											
2282	108363	Storage Battery Equipment									
2283		D	S	-	-	-	-	-	-	-	-
2284											
2285											
2286	108364	Poles, Towers & Fixtures									
2287		D	S	(254,217,371)	-	-	(254,217,371)	-	-	-	-
2288				(254,217,371)	-	-	(254,217,371)	-	-	-	-
2289											
2290	108365	Overhead Conductors									
2291		D	S	(111,511,075)	-	-	(111,511,075)	-	-	-	-
2292				(111,511,075)	-	-	(111,511,075)	-	-	-	-
2293											
2294	108366	Underground Conduit									
2295		D	S	(30,131,046)	-	-	(30,131,046)	-	-	-	-
2296				(30,131,046)	-	-	(30,131,046)	-	-	-	-
2297											
2298	108367	Underground Conductors									
2299		D	S	(49,257,652)	-	-	(49,257,652)	-	-	-	-
2300				(49,257,652)	-	-	(49,257,652)	-	-	-	-
2301											
2302	108368	Line Transformers									
2303		D	S	(145,890,557)	-	-	(145,890,557)	-	-	-	-
2304				(145,890,557)	-	-	(145,890,557)	-	-	-	-
2305											
2306	108369	Services									
2307		D	S	(54,920,796)	-	-	(54,920,796)	-	-	-	-
2308				(54,920,796)	-	-	(54,920,796)	-	-	-	-
2309											
2310	108370	Meters									
2311		C_Meter	S	(30,602,765)	-	-	-	-	-	(30,602,765.11)	-
2312				(30,602,765)	-	-	-	-	-	(30,602,765)	-
2313											
2314											
2315											
2316	108371	Installations on Customers' Premises									
2317		D	S	(2,335,549)	-	-	(2,335,549)	-	-	-	-
2318				(2,335,549)	-	-	(2,335,549)	-	-	-	-
2319											
2320	108372	Leased Property									
2321		D	S	-	-	-	-	-	-	-	-
2322				-	-	-	-	-	-	-	-
2323											
2324	108373	Street Lights									
2325		D	S	(7,478,090)	-	-	(7,478,090)	-	-	-	-
2326				(7,478,090)	-	-	(7,478,090)	-	-	-	-
2327											
2328	108D00	Unclassified Dist Plant - Acct 300									
2329		D_SPLIT	S	-	-	-	-	-	-	-	-
2330				-	-	-	-	-	-	-	-
2331											
2332	108DS	Unclassified Dist Sub Plant - Acct 300									
2333		D_SPLIT	S	-	-	-	-	-	-	-	-
2334				-	-	-	-	-	-	-	-
2335											
2336	108DP	Unclassified Dist Sub Plant - Acct 300									
2337		D_SPLIT	S	-	-	-	-	-	-	-	-
2338				-	-	-	-	-	-	-	-
2339											
2340											
2341	TOTAL DISTRIBUTION PLANT DEPR			(741,765,252)	-	-	(711,162,487)	-	-	(30,602,765)	-
2342											
2343	Summary of Distribution Plant Depr by Factor										
2344		S		(741,765,252)	-	-	(711,162,487)	-	-	(30,602,765)	-
2345											
2346	Total Distribution Depreciation by Factor			(741,765,252)	-	-	(711,162,487)	-	-	(30,602,765)	-
2347	108GP	General Plant Accumulated Depr									
2348		D_SPLIT	S	(50,628,900)	-	-	(48,845,129.32)	-	-	(1,783,770.28)	-
2349		G-DGP	SG	(1,961,193)	(1,344,592)	(616,602)	-	-	-	-	-
2350		G-DGU	SG	(3,726,099)	(2,554,609)	(1,171,491)	-	-	-	-	-
2351		G-SG	SG	(12,083,872)	(8,293,222)	(3,710,602)	(76,918)	-	-	(3,131)	-
2352		B_Center	CN	(1,802,318)	-	-	-	-	(1,343,345.91)	-	(458,971.75)
2353		LABOR	SO	(22,106,984)	(8,936,621)	(1,063,943)	(7,516,515)	-	(1,202,936)	(2,164,217)	(1,222,751)
2354		P	SE	(65,729)	(65,729)	-	-	-	-	-	-
2355		G-SG	SSGCT	(8,492)	(5,828)	(2,608)	(54)	-	-	(2)	-
2356		G-SG	SSGCH	(650,630)	(446,530)	(199,789)	(4,141)	-	-	(169)	-
2357				(93,034,218)	(21,647,131)	(6,765,035)	(56,442,758)	-	(2,546,282)	(3,951,289)	(1,681,723)

RESULTS OF OPERATIONS SUMMARY

REVISED PROTOCOL

FERC ACCT	DESCRIPTION	BUSINESS FUNCTION	PITA FACTOR	OREGON Normalized	Production	Transmission	Distribution	Ancillary	C Billing	C Metering	C Service
2358											
2359											
2360	108MP	Mining Plant Accumulated Depr.									
2361		P	S	-	-	-	-	-	-	-	-
2362		P	SE	(42,029,817)	(42,029,817)	-	-	-	-	-	-
2363				(42,029,817)	(42,029,817)	-	-	-	-	-	-
2364	108MP	Less Centralia Sltus Depreciation									
2365		P	S	-	-	-	-	-	-	-	-
2366				(42,029,817)	(42,029,817)	-	-	-	-	-	-
2367											
2368	1081390	Accum Depr - Capital Lease									
2369		LABOR	SO	-	-	-	-	-	-	-	-
2370											
2371											
2372		Remove Capital Leases									
2373											
2374											
2375	1081399	Accum Depr - Capital Lease									
2376		P	S	-	-	-	-	-	-	-	-
2377		P	SE	-	-	-	-	-	-	-	-
2378											
2379											
2380		Remove Capital Leases									
2381											
2382											
2383											
2384	TOTAL GENERAL PLANT ACCUM DEPR			(135,064,034)	(63,676,948)	(6,765,035)	(56,442,758)	-	(2,546,282)	(3,951,289)	(1,681,723)
2385											
2386											
2387											
2388	Summary of General Depreciation by Factor										
2389		S		(50,628,900)	-	-	(48,845,129)	-	-	(1,783,770)	-
2390		DGP		-	(1,344,592)	(616,602)	-	-	-	-	-
2391		DGU		-	(2,554,609)	(1,171,491)	-	-	-	-	-
2392		SE		(42,095,546)	(42,095,546)	-	-	-	-	-	-
2393		SO		(22,106,984)	(8,936,621)	(1,063,943)	(7,516,515)	-	(1,202,936)	(2,164,217)	(1,222,751)
2394		CN		(1,802,318)	-	-	-	-	(1,343,346)	-	(458,972)
2395		SG		(17,771,165)	(8,293,222)	(3,710,602)	(76,918)	-	-	(3,131)	-
2396		DGP		-	-	-	-	-	(1,343,346)	-	(458,972)
2397		SSGCT		(8,492)	(8,936,621)	(1,063,943)	(7,516,515)	-	(1,202,936)	(2,164,217)	(1,222,751)
2398		SE		(650,630)	(65,729)	-	-	-	-	-	-
2399		Remove Capital Leases		-	-	-	-	-	-	-	-
2400	Total General Depreciation by Factor			(135,064,034)	(72,226,939)	(7,626,581)	(63,955,078)	-	(5,092,564)	(6,115,336)	(3,363,446)
2401											
2402											
2403	TOTAL ACCUM DEPR - PLANT IN SERVICE			(2,041,168,235)	(917,607,943)	(317,172,989)	(767,605,245)	-	(2,546,282)	(34,554,054)	(1,681,723)
2404	111SP	Accum Prov for Amort-Steam									
2405		P	SSGCH	-	-	-	-	-	-	-	-
2406		P	SSGCT	-	-	-	-	-	-	-	-
2407											
2408											
2409											
2410	111GP	Accum Prov for Amort-General									
2411		D_SPLIT	S	(10,854,756)	-	-	(10,472,318.31)	-	-	(382,437.52)	-
2412		CUST	CN	(792,042)	-	-	-	-	(792,042)	-	-
2413		I-SG	SG	(224,015)	(200,548)	(23,394)	(70)	-	-	(3)	-
2414		LABOR	SO	(3,079,249)	(1,244,769)	(148,195)	(1,046,964)	-	(167,555)	(301,451)	(170,315)
2415		P	SE	-	-	-	-	-	-	-	-
2416				(14,950,062)	(1,445,317)	(171,589)	(11,519,352)	-	(959,597)	(683,891)	(170,315)
2417											
2418											
2419	111HP	Accum Prov for Amort-Hydro									
2420		Pre-Merger Pacific	P	(92,811)	(92,811)	-	-	-	-	-	-
2421		Pre-Merger Utah	P	-	-	-	-	-	-	-	-
2422		Post-Merger Pacific	P	(2,649)	(2,649)	-	-	-	-	-	-
2423		Post-Merger Utah	P	(109,550)	(109,550)	-	-	-	-	-	-
2424				(204,811)	(204,811)	-	-	-	-	-	-
2425											
2426											
2427	111IP	Accum Prov for Amort-Intangible Plant									
2428		D_SPLIT	S	(580,763)	-	-	(560,301.17)	-	-	(20,461.58)	-
2429		LABOR	SG	30,126	12,178	1,450	10,243	-	1,639	2,949	1,666
2430		LABOR	SG	(84,292)	(34,074)	(4,057)	(28,660)	-	(4,587)	(8,252)	(4,662)
2431		P	SE	(365,642)	(365,642)	-	-	-	-	-	-
2432		LABOR	SG	(11,421,406)	(4,817,038)	(549,678)	(3,883,351)	-	(621,488)	(1,118,126)	(631,725)
2433		I-SG	SG	(4,594,437)	(4,113,154)	(479,795)	(1,430)	-	-	(58)	-
2434		I-SG	SG	(877,774)	(785,824)	(91,666)	(273)	-	-	(11)	-
2435		CSS_SYS	CN	(28,974,607)	-	-	-	-	(15,936,034)	(5,215,429)	(7,823,144)
2436		P	SSGCT	-	-	-	-	-	-	-	-
2437		P	SSGCH	(7,235)	(7,235)	-	-	-	-	-	-
2438		LABOR	SO	(79,074,244)	(31,965,309)	(3,805,607)	(26,885,747)	-	(4,302,769)	(7,741,166)	(4,373,646)
2439				(125,950,273)	(41,876,098)	(4,929,353)	(31,349,518)	-	(20,863,238)	(14,100,556)	(12,831,511)
2440	111IP	Less Non-Utility Plant									
2441											
2442				(125,950,273)	(41,876,098)	(4,929,353)	(31,349,518)	-	(20,863,238)	(14,100,556)	(12,831,511)
2443											
2444	111390	Accum Amtr - Capital Lease									
2445		LABOR	S	-	-	-	-	-	-	-	-
2446		P	SG	-	-	-	-	-	-	-	-
2447		LABOR	SO	-	-	-	-	-	-	-	-
2448											
2449											
2450		Remove Capital Lease Amtr									
2451											
2452	TOTAL ACCUM PROV FOR AMORTIZATION			(141,105,146)	(43,526,226)	(5,100,942)	(42,868,870)	-	(21,822,835)	(14,784,447)	(13,001,826)

Docket No. UE-210  
Exhibit PPL/919  
Witness: C. Craig Paice

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of C. Craig Paice**

**Marginal Cost of Service Study**

**August 2009**



Table 1

PacifiCorp  
Oregon Marginal Cost Study  
Summary of Marginal Costs  
Demand & Energy in Mills/kWh  
December 2010 Dollars

Line	Description	Energy				Demand & Energy							
		(A)		(B)		(C)		(D)		(E)		(F)	
		1 Year	10 Year	10 Year	20 Year	1 Year	10 Year	10 Year	20 Year	1 Year	10 Year	10 Year	20 Year
1	Res - Schedule 4	(sec)	67.57	67.12	64.99	67.57	113.51	111.37					
2													
3	GS - Schedule 23	(sec)	67.57	67.12	64.99	67.57	103.40	101.26					
4	0-15 kW	(sec)	67.57	67.12	64.99	67.57	110.66	108.53					
5	15+ kW	(pri)	65.12	65.02	62.96	65.12	105.83	103.50					
6	Primary												
7													
8	GS - Schedule 28	(sec)	67.57	67.12	64.99	67.57	106.63	104.49					
9	0-50 kW	(sec)	67.57	67.12	64.99	67.57	108.63	106.49					
10	51-100 kW	(sec)	67.57	67.12	64.99	67.57	105.39	103.25					
11	> 101kW	(pri)	65.48	65.04	62.96	65.48	102.63	100.50					
12	Primary												
13													
14	GS - Schedule 30	(sec)	67.56	67.12	64.99	67.56	104.64	102.50					
15	0-300 kW	(sec)	67.57	67.12	64.99	67.57	104.36	102.23					
16	301+ kW	(pri)	65.45	65.02	62.96	65.45	100.86	98.79					
17	Primary												
18													
19	LPS - Schedule 48T	(sec)	67.57	67.12	64.99	67.57	102.53	100.39					
20	1-4 MW	(pri)	65.46	65.02	62.96	65.46	97.16	95.09					
21	1-4 MW	(sec)	67.57	67.11	64.99	67.57	92.59	90.45					
22	> 4 MW	(pri)	65.46	65.02	62.96	65.46	90.29	88.22					
23	> 4 MW												
24													
25	Trans	(trn)	64.12	63.69	61.67	64.12	81.66	79.63					
26													
27													
28	Schedule 41- Irrigation	(sec)	67.56	67.12	64.99	67.56	114.15	112.01					
29	Schedule 33*- Irrigation	(sec)	67.57	67.12	64.99	67.57	117.23	115.09					

Sources:

- (A) Tab 2.13 (1 Year MC); 1 Year Marginal Costs by Load Class'
- (B) Tab 2.11 (10 Yr FC); 10 Year Run Costing Inputs and Customer Data Marginal Unit Costs'
- Tab 2.10 (10 Yr UC); 10 Year Run Costing Inputs and Customer Data Marginal Unit Costs'
- (C) Tab 2.3 (Table 4); 20 Year Marginal Cost By Load Class December 2010 Dollars'
- Tab 2.3 (Table 3); 20 Year Costing Inputs and Customer Data Marginal Unit Costs'
- (D) Column (A)
- (E) Tab 2.11 (10 Yr FC); 10 Year Marginal Cost By Load Class'
- Tab 2.10 (10 Yr UC); 10 Year Run Costing Inputs and Customer Data Marginal Unit Costs'
- (F) Tab 2.4 (Table 4); 20 Year Marginal Cost By Load Class December 2010 Dollars'
- Tab 2.3 (Table 3); 20 Year Costing Inputs and Customer Data Marginal Unit Costs'

Energy costs include both generation and transmission energy-related costs.

\* Schedule 33 Cost of Service results are provided for informational purposes only.

**Table 2**

PacifiCorp  
Oregon Marginal Cost Study  
Summary of Marginal Costs  
Commitment and Billing in \$ / Customer / Month  
December 2010 Dollars

Line	Description	(A)		(B)	
		1 Year	1&3 Phase	10 & 20 Year	1&3 Phase
1	Res - Schedule 4	(sec)	\$12.96		\$30.63
2					
3	GS - Schedule 23				
4	0-15 kW	(sec)	14.34		45.93
5	15+ kW	(sec)	26.55		81.06
6	Primary	(pri)	105.04		118.21
7					
8	GS - Schedule 28				
9	0-50 kW	(sec)	29.41		92.38
10	51-100 kW	(sec)	31.07		103.62
11	> 101kW	(sec)	68.24		147.36
12	Primary	(pri)	107.28		112.92
13					
14	GS - Schedule 30				
15	0-300 kW	(sec)	88.37		184.08
16	301+ kW	(sec)	88.38		184.29
17	Primary	(pri)	127.28		133.91
18					
19	Total				
20	1 - 4 MW	(sec)	237.12		328.48
21	1 - 4 MW	(pri)	237.06		239.02
22	> 4 MW	(sec)	237.12		326.51
23	> 4 MW	(pri)	237.06		237.06
24	Trans	(trn)	3,709.57		3,709.57
25					
26					
27	Schedule 41- Irrigation	(sec)	10.35		120.17
28	Schedule 41- Irrigation	(sec)	10.35		120.17
29	Schedule 33*- Irrigation	(sec)	10.69		142.43

Footnote:  
Short-run commitment and billing costs include the cost of metering, meter overhead and maintenance, service drops, service drop overhead and maintenance, customer accounting and informational expenses, and billing expenses.

\* Schedule 33 Cost of Service results are provided for informational purposes only.

Sources:  
Tab 2.7 (Table 7): 'Marginal Distribution & Billing Costs By Load Size'

**Table 3**

PacificCorp  
Oregon Marginal Cost Study  
20 Year Costing Inputs and Customer Data  
Marginal Unit Costs  
December 2010 Dollars

Line	Description	(A) Residential (sec)	(B) General Service - 0-15 kW (sec)	(C) General Service - 15+ kW (sec)	(D) General Service - Schedule 23 Primary (pri)	(E) General Service - 0-50 kW (sec)	(F) General Service - 51-100 kW (sec)	(G) General Service - Schedule 28 > 101kW (sec)	(H) Primary (pri)	(I) General Service - 0-300 kW (sec)	(J) 301+ kW (sec)	(K) Primary (pri)	(L) 1-4 MW (sec)	(M) Large Power Service - 1-4 MW (pri)	(N) Large Power Service - > 4 MW (sec)	(O) > 4 MW (pri)	(P) Trans (tm)	(Q) Irrigation Sch 41 (sec)	(R) Irrigation Sch 33* (sec)
Billing Units																			
Demand																			
1	Peak Mw @ Meter	886	79	72	0	71	116	145	3	31	163	14	90	60	7	156	46	21	18
2	System Feeder	1,084	76	67	0	67	110	143	3	31	162	14	89	58	6	154	0	16	14
3	Transformer	2,402	271	109	0	109	158	200	4	41	194	17	143	92	18	236	69	98	84
4	Demand Loss Factor	1.1131	1.1131	1.1131	1.0819	1.1131	1.1131	1.1131	1.0819	1.1131	1.1131	1.0819	1.1131	1.0819	1.1131	1.0498	1.0498	1.1131	1.1131
5	Peak Mw @ Generator	986	88	80	0	79	129	161	3	35	181	15	101	65	8	169	49	23	20
6	System Feeder	1,207	85	75	0	74	122	159	3	35	181	15	100	63	7	166	N/A	18	16
7	Transformer	2,674	302	121	N/A	121	176	223	N/A	46	216	N/A	160	N/A	20	N/A	N/A	109	94
Energy																			
11	Energy - Annual Mwh	5,435,846	582,532	430,256	1,152	431,890	672,435	922,391	18,249	206,234	1,078,480	93,931	594,746	414,743	54,345	1,175,179	404,889	136,792	118,046
12	Energy Loss Factor	1.0918	1.0918	1.0918	1.0577	1.0918	1.0918	1.0918	1.0577	1.0918	1.0918	1.0577	1.0918	1.0577	1.0918	1.0577	1.0361	1.0918	1.0918
13	Energy - Annual Mwh	5,934,856	636,009	469,754	1,218	471,647	734,164	1,007,067	19,302	225,167	1,177,485	99,352	649,344	438,677	59,334	1,242,998	419,485	149,349	128,883
14	Customer	478,485	64,649	9,372	34	4,491	3,525	2,034	50	230	572	52	121	56	2	34	2	6,108	2,062
15	Annual Customers																	2,834	756
16	Average Customers																		
Unit Costs																			
22	Generation	\$74.48	\$74.48	\$74.48	\$74.48	\$74.48	\$74.48	\$74.48	\$74.48	\$74.48	\$74.48	\$74.48	\$74.48	\$74.48	\$74.48	\$74.48	\$74.48	\$74.48	\$74.48
23	Transmission	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34
24	Poles, Cond., Subst.	\$83.22	\$87.55	\$87.55	\$87.55	\$87.00	\$87.00	\$87.00	\$87.00	\$89.43	\$69.43	\$69.43	\$66.87	\$56.87	\$27.17	\$26.04	\$0.00	\$151.53	\$174.56
25	Transformers	\$1.51	\$1.96	\$1.96	\$0.00	\$1.96	\$1.96	\$1.96	\$0.00	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$0.00	\$0.00	\$0.00	\$1.96	\$1.96
26	Energy - @ Generator	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571
27	Generation	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381
28	Transmission	\$98.51	\$112.87	\$112.87	\$112.87	\$48.31	\$48.31	\$48.31	\$48.31	\$56.87	\$56.87	\$56.87	\$56.87	\$16.84	\$0.00	\$0.00	\$0.00	\$303.41	\$383.21
29	Poles	\$39.46	\$45.21	\$45.21	\$45.21	\$19.34	\$19.34	\$19.34	\$19.34	\$22.77	\$22.77	\$22.77	\$22.77	\$6.75	\$0.00	\$0.00	\$0.00	\$121.51	\$153.49
30	Conductor	\$74.10	\$220.96	\$495.99	\$0.00	\$687.94	\$802.95	\$881.83	\$0.00	\$1,068.93	\$1,071.19	\$0.00	\$1,072.72	\$0.00	\$1,072.72	\$0.00	\$0.00	\$892.92	\$1,044.20
31	Service Drop	\$70.74	\$91.06	\$217.90	\$0.00	226.61	236.74	521.65	--	521.43	521.41	521.41	521.43	\$936.36	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
32	Meters	\$15.52	\$18.36	\$38.03	\$1,197.78	38.76	46.47	207.64	209.65	209.44	209.65	209.65	1,197.78	\$262.21	\$1,197.78	\$262.21	\$42.868	\$37.98	\$45.05
33	Meter Reading	\$14.00	\$17.36	\$17.36	\$17.36	16.80	16.80	16.80	16.80	75.74	75.74	75.74	75.74	\$114.93	\$114.93	\$114.93	\$114.93	\$26.74	\$26.67
34	Billing & Collections	\$32.27	\$30.49	\$30.49	\$30.49	32.60	32.60	32.60	32.60	32.60	32.60	32.60	32.60	\$238.22	\$238.22	\$238.22	\$238.22	\$33.07	\$33.02
35	Uncollectibles	\$10.15	\$2.73	\$2.73	\$2.73	25.17	25.17	25.17	25.17	180.30	180.30	180.30	180.30	\$1,110.75	\$1,110.75	\$1,110.75	\$1,110.75	\$12.33	\$9.21
36	Customer Service / Other	\$12.82	\$12.11	\$12.11	\$12.11	15.01	15.01	15.01	15.01	40.89	40.89	40.89	40.89	\$182.98	\$182.98	\$182.98	\$182.98	\$14.72	\$14.32
37	Total Commitment & Billing	\$367.57	\$551.16	\$972.70	\$1,418.56	\$1,109.54	\$1,243.39	\$1,768.36	\$1,355.01	\$2,208.97	\$2,211.43	\$1,606.95	\$3,941.71	\$2,868.25	\$3,918.18	\$2,844.66	\$44,515	\$1,442.08	\$1,709.16

Sources:  
Lines 1 - 3 Tab 17.4 (Cust Data 4); Customer Loads 12 Months Ended December 2010  
Lines 12 & 17 Tab 17.2 (Cust Data 2); Customers and MWh's 12 Months Ended December 2010 - Normalized  
Line 13 Tab 16.1 (Losses); Energy Loss Factors  
Line 22 Tab 4.1 (Capacity); Marginal Capacity Costs Based on Avoided Capacity Costs  
Line 23 Tab 6.1 (Transm); Marginal Transmission Investment and O&M Expenses  
Line 24 Tab 2.7 (Table 7); Marginal Distribution & Billing Costs By Load Size  
Line 28 Tab 5.1 (Energy); Marginal Generation Energy Costs  
Line 29 Tab 2.6 (Table 6); Marginal Cost of Transmission Investment and Associated Expenses  
Lines 31 - 39 Tab 2.7 (Table 7); Marginal Distribution & Billing Costs By Load Size

\* Schedule 33 Cost of Service results are provided for informational purposes only.





**Table 5**

PacifiCorp  
Oregon Marginal Cost Study  
Summary of Marginal Generation Costs  
In Nominal Dollars

Year	(A) Resource Cost (Mills / kWh) (B) + (C)	(B) Energy Only (Mills / kWh)	(C) Capacity Only (Mills / kWh)	(D) Capacity Only (\$ / kW)
2010	79.34	61.88	17.46	\$74.50
2011	78.19	60.36	17.83	\$76.06
2012	76.81	58.62	18.19	\$77.59
2013	77.15	58.62	18.53	\$79.05
2014	79.47	60.59	18.88	\$80.55
2015	82.45	63.21	19.24	\$82.08
2016	83.99	64.38	19.61	\$83.64
2017	85.46	65.48	19.98	\$85.23
2018	86.93	66.57	20.36	\$86.86
2019	88.56	67.82	20.74	\$88.50
2020	90.28	69.14	21.14	\$90.18
2021	90.11	68.57	21.54	\$91.89
2022	90.24	68.29	21.95	\$93.65
2023	90.61	68.24	22.37	\$95.42
2024	90.39	67.60	22.79	\$97.23
2025	90.41	67.19	23.22	\$99.08
2026	90.37	66.70	23.67	\$100.97
2027	91.06	66.94	24.12	\$102.88
2028	92.13	67.55	24.58	\$104.84
2029	92.90	67.86	25.04	\$106.83
<b>2010</b>				
	<b>1 year -</b>			
	Sum of PV Costs @ 8.53%	61.89	17.46	\$74.50
<b>2010 - 2014</b>				
	<b>5 year -</b>			
	Sum of PV Costs @ 8.53%	256.80	77.44	\$330.35
	Annual Cost of R/E @ 22.58%	57.99		
	Annual Cost of Capacity @ 22.58%		17.49	\$74.59
<b>2010 - 2019</b>				
	<b>10 years -</b>			
	Sum of PV Costs @ 8.53%	442.17	134.00	\$571.62
	Annual Cost of R/E @ 13.04%	57.66		
	Annual Cost of Capacity @ 13.04%		17.47	\$74.54
<b>2010 - 2029</b>				
	<b>20 years -</b>			
	Sum of PV Costs @ 8.53%	655.40	205.41	\$876.24
	Annual Cost of R/E @ 8.50%	55.71		
	Annual Cost of Capacity @ 8.50%		17.46	\$74.48

Footnotes:

(B) Tab 5.1 (Energy): 'Marginal Generation Energy Costs'

(C) Tab 4.1 (Capacity): 'Marginal Capacity Costs Based on Avoided Capacity Costs'

(D) Tab 4.1 (Capacity): 'Marginal Capacity Costs Based on Avoided Capacity Costs'

**Table 6**

PacifiCorp  
Oregon Marginal Cost Study  
Marginal Cost of  
Transmission Investment and Associated Expenses

Line	Item	\$'s
1	Growth Related Investments - (2010 to 2014 in \$000's)	\$802,608
2		
3	System Growth MW's from 2010 to 2014	913 mW
4		
5	Marginal Investment (growth invest / mWh)	\$879.09 / kW
6		
7	Annualized Investment x 8.68%	76.31 / kW
8	Admin. & General Factor x 1.71%	15.03
9	Annual O&M Expenses x 1.205%	<u>10.59</u> / kW
10	Annualized Marginal Cost	\$101.93 / kW
11		
12	Marginal Cost of Demand-Related Transmission	\$75.34 / kW
13		
14	Marginal Cost of Energy-Related Transmission (Line 10 - Line 12)	\$26.59 / kW
15	Marginal Cost of Energy-Related Transmission	\$0.00381 / kWh
16	\$26.59 / (8760 x 79.62% LF))	

Sources:

Tab 6.2 (Transm2:) `2010-2014 Forecasted Transmission'

Tab 6.1 (Transm1:) `Marginal Transmission Investment and O&M Expenses'

Table 7

PacificCorp  
Oregon Marginal Cost Study  
Marginal Distribution & Billing Costs By Load Size  
December 2010 Dollars

Line	Description	(A) (sec)	(B) (sec)	(C) (sec)	(D) (pri)	(E) (sec)	(F) (sec)	(G) (pri)	(H) (pri)	(I) (sec)	(J) (sec)	(K) (pri)	(L) (sec)	(M) (pri)	(N) (sec)	(O) (pri)	(P) (tm)	(R) (sec)		
		Residential	General Service - Schedule 23	General Service - Schedule 28	General Service - Schedule 28	General Service - Schedule 28	General Service - Schedule 28	General Service - Schedule 28	General Service - Schedule 28	General Service - Schedule 30	General Service - Schedule 48T	Large Power Service - Schedule 48T	Large Power Service - Schedule 48T	Large Power Service - Schedule 48T	Large Power Service - Schedule 48T	Large Power Service - Schedule 48T	Large Power Service - Schedule 48T	Large Power Service - Schedule 48T	Large Power Service - Schedule 48T	
		(sec)	0-15 kW	15+ kW	Primary	0-50 kW	51-100 kW	> 101kW	Primary	0-300 kW	301+ kW	Primary	1 - 4 MW	1 - 4 MW	1 - 4 MW	1 - 4 MW	1 - 4 MW	1 - 4 MW	1 - 4 MW	
1	Demand Related Costs (\$/kW)																			
2	Poles	16.72	18.05	18.05	18.05	11.62	11.62	11.62	11.62	12.36	12.36	12.36	8.44	8.44	8.44	0.90	0.90	0.90	0.90	0.90
3	Conductors	27.27	29.12	29.12	29.12	20.45	20.45	20.45	20.45	21.50	21.50	21.50	16.19	16.19	16.19	1.91	1.91	1.91	1.91	1.91
4	Substation	17.15	17.15	17.15	17.15	17.15	17.15	17.15	17.15	17.15	17.15	17.15	17.15	17.15	17.15	17.15	17.15	17.15	17.15	17.15
5	Dist. O&M @ of Total Investment	22.08	23.23	23.23	23.23	17.78	17.78	17.78	17.78	18.42	18.42	18.42	15.09	15.09	15.09	6.91	6.91	6.91	6.91	6.91
6	Total \$/ Feeder kW	\$63.22	\$87.55	\$87.55	\$87.55	\$67.00	\$67.00	\$67.00	\$67.00	\$69.43	\$69.43	\$69.43	\$56.87	\$56.87	\$56.87	\$27.17	\$27.17	\$27.17	\$27.17	\$27.17
7	Transformers	1.11	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44
8	Dist. O&M @ of Total Investment	0.40	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
9	Total \$/ Transformer kW	\$1.51	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96	\$1.96
10																				
11																				
12	Commitment Related Costs (\$/Customer)																			
13	Poles	72.37	82.92	82.92	82.92	35.49	35.49	35.49	35.49	41.78	41.78	41.78	12.37	12.37	12.37	-	-	-	-	-
14	Conductors	28.99	33.21	33.21	33.21	14.21	14.21	14.21	14.21	16.73	16.73	16.73	4.96	4.96	4.96	-	-	-	-	-
15	Transformers	54.44	62.33	62.33	62.33	589.88	589.88	589.88	589.88	785.29	785.29	785.29	788.07	788.07	788.07	788.07	788.07	788.07	788.07	788.07
16	Dist. O&M @ of Total Investment	56.27	100.58	173.56	41.95	200.50	231.02	251.95	17.95	304.78	303.38	21.13	290.91	6.26	284.65	NA	NA	NA	NA	NA
17	Total Commitment Related	\$212.07	\$379.04	\$654.07	\$158.08	\$755.59	\$870.60	\$949.48	\$67.65	\$1,146.58	\$1,150.84	\$79.64	\$1,096.31	\$23.59	\$1,072.72	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
18																				
19	Billing Related Costs (\$/Customer/Yr)																			
20	Service Drop	51.97	66.90	160.08	NA	166.48	173.92	383.23	NA	383.07	383.05	NA	687.89	NA	687.89	NA	NA	NA	NA	NA
21	Service Drop O&M @	18.77	24.16	57.82	NA	60.13	62.82	138.42	NA	138.36	138.36	NA	248.47	NA	248.47	NA	NA	NA	NA	NA
22	Meter	10.88	12.87	26.65	\$839.43	25.76	32.57	145.52	839.43	146.78	146.93	839.43	183.76	839.43	183.76	839.43	30,042.75	26.20	31.57	31.57
23	Meter O&M at	4.64	5.49	11.38	358.35	11.00	13.90	62.12	358.35	62.66	62.72	358.35	78.45	358.35	78.45	358.35	12,825.25	11.18	13.48	13.48
24	Meter Reading	14.00	17.36	17.36	17.36	16.80	16.80	16.80	16.80	17.54	17.54	17.54	114.93	114.93	114.93	114.93	114.93	26.74	26.87	26.87
25	Billing & Collections	32.27	30.49	30.49	30.49	32.60	32.60	32.60	32.60	32.60	32.60	32.60	238.22	238.22	238.22	238.22	238.22	33.07	33.02	33.02
26	Uncollectables	10.15	2.73	2.73	2.73	25.17	25.17	25.17	25.17	\$180.30	\$180.30	\$180.30	1,110.75	1,110.75	1,110.75	1,110.75	1,110.75	12.33	9.21	9.21
27	Customer Service / Other	12.82	12.11	12.11	12.11	15.01	15.01	15.01	15.01	40.89	40.89	40.89	182.98	182.98	182.98	182.98	182.98	14.72	14.32	14.32
28	Total Billing Related	\$155.50	\$172.12	\$318.63	\$1,260.48	\$352.95	\$372.79	\$818.87	\$1,287.36	\$1,060.40	\$1,060.59	\$1,527.31	\$2,845.45	\$2,844.66	\$2,845.45	\$2,844.66	\$44,514.88	\$124.23	\$128.26	\$128.26
29																				
30																				
31	Monthly Billing Related (Line 28 / 12)	\$12.96	\$14.34	\$26.55	\$105.04	\$29.41	\$31.07	\$68.24	\$107.28	\$88.37	\$88.38	\$127.28	\$237.12	\$237.06	\$237.12	\$237.06	\$3,709.57	\$10.35	\$10.69	\$10.69
32																				
33	Total Distribution (Comm & Billing Costs)	\$367.57	\$551.16	\$972.70	\$1,418.56	\$1,108.54	\$1,243.39	\$1,768.36	\$1,355.01	\$2,208.97	\$2,211.43	\$1,606.95	\$3,941.76	\$2,868.25	\$3,918.17	\$2,844.66	\$44,514.88	\$1,442.08	\$1,709.18	\$1,709.18
34	Monthly Commitment & Bill (Line 33 / 12)	\$30.63	\$45.93	\$81.06	\$118.21	\$92.38	\$103.62	\$147.36	\$112.92	\$184.08	\$184.29	\$133.91	\$328.48	\$239.02	\$326.51	\$237.06	\$3,709.57	\$120.17	\$142.43	\$142.43
35																				

Sources: Lines  
 Line 1 - 2 Tab 8.1 (PC 1): Hypothetical Feeder Study Results Annual Demand and Commitment Costs  
 Line 3 Tab 7.1 (Dist Sub 1): Distribution Substation Costs / kW  
 Line 4 Sum of lines 1 to 3 multiplied by 36.12%  
 Line 7 Tab 10.1 (Dist O&M): Distribution O&M Expense Loading Factor as a Percent of Dist. Plant\* (for 36.12% Factor)  
 Line 8 Tab 9.2 (XFMR 2): Transformer Demand Costs  
 Line 9 Tab 8.1 (PC 1): Hypothetical Feeder Study Results Annual Demand and Commitment Costs  
 Line 10 Tab 9.1 (XFMR 1): Transformer Commitment Costs  
 Line 11 Tab 12.1 (Services 1): Weighted Average Installed Service Drop Costs  
 Line 12 Tab 11.1 (Meters 1): Weighted Average Installed Meter Costs  
 Line 13 Tab 11.5 (Meters 5): Distribution Meters Expense Loading Factor\* (for 42.68% Factor)  
 Line 14 Tab 13.1 (Cust Exp Sum): Summary of Customer Accounting Expense By Schedule  
 Line 24-27

\* Schedule 33 Cost of Service results are provided for informational purposes only.



**Full MC %**

PacifiCorp  
Oregon Marginal Cost Study  
Marginal Cost Percentage @ Meter  
December 2010 Dollars

Line	Description	(A) Marginal Cost (000)s	(B) Mills / kWh	(C) % of Total
	Demand Related Marginal Cost -			
1	Generation	\$161,795	12.67	10.3%
2	Transmission	163,662	12.81	10.4%
3	Dist. Poles, Cond., Subst.	171,013	13.39	10.9%
4	Dist. Transformers	<u>6,968</u>	<u>0.55</u>	<u>0.4%</u>
5	Total Demand Related	\$503,438	39.42	32.0%
6				
7	Energy Related Marginal Cost -			
8				
9	Generation	\$766,783	60.04	48.8%
10	Transmission	<u>52,473</u>	<u>4.11</u>	<u>3.3%</u>
11	Total Energy Related	\$819,256	64.14	52.1%
12				
13	Commitment & Billing -			
14	Commitment	153,493	12.02	9.8%
15	Billing	<u>95,337</u>	<u>7.46</u>	<u>6.1%</u>
16	Total Commitment & Billing	\$248,830	19.48	15.8%
17				
18				
19	TOTAL MARGINAL COST	<u>\$1,571,524</u>	<u>123.04</u>	<u>100.0%</u>
20				
21				
22	Note: Total MWh =	12,772,237		

PacifiCorp  
Oregon Marginal Cost Study  
10 Year Run Costing Inputs and Customer Data  
Marginal Unit Costs  
December 2010 Dollars

Line	Description	(A) Residential (sec)	(B) General Service - Schedule 23 0-15 kW (sec)	(C) 15+ kW (sec)	(E) Schedule 23 (pri)	(F) 0-50 kW (sec)	(G) General Service - Schedule 28 51-100 kW (sec)	(H) General Service - Schedule 28 > 101 kW (sec)	(I) Primary (pri)	(J) General Service - Schedule 30 0-300 kW (sec)	(K) General Service - Schedule 30 301+ kW (sec)	(L) Primary (pri)	(M) 1 - 4 MW (sec)	(N) Large Power Service - Schedule 48T 1 - 4 MW (pri)	(O) Large Power Service - Schedule 48T > 4 MW (sec)	(P) Schedule 48T > 4 MW (pri)	(Q) (tm)	(R) Irrg Sch 41 (sec)	(S) Irrg Sch 33* (sec)
Billing Units																			
Demand																			
1	Peak MW @ Meter	886	79	72	0	71	116	145	3	31	163	14	90	60	7	156	46	21	18
2	System Feeder	1,084	76	67	0	67	110	143	3	31	162	14	89	58	6	154	0	16	14
3	Transformer	2,402	271	109	0	109	158	200	4	41	194	17	143	92	18	236	69	98	84
4	Demand Loss Factor	1,1131	1,1131	1,1131	1,0819	1,1131	1,1131	1,1131	1,0819	1,1131	1,1131	1,0819	1,1131	1,0819	1,1131	1,0819	1,0498	1,1131	1,1131
5	Peak MW @ Generator	986	88	80	0	79	129	161	3	35	181	15	101	65	8	169	49	23	20
6	System Feeder	1,207	85	75	0	74	122	159	3	35	181	15	100	63	7	166	-	18	16
7	Transformer	2,674	302	121	N/A	121	176	223	N/A	46	216	N/A	160	N/A	20	N/A	N/A	109	94
8	Energy																		
9	Energy - Annual Mwh	5,435,846	582,532	430,256	1,152	431,990	672,435	922,391	18,249	206,234	1,078,480	93,951	594,746	414,743	54,345	1,175,179	404,889	136,792	118,046
10	Energy Loss Factor	1,0918	1,0918	1,0918	1,0577	1,0918	1,0918	1,0918	1,0577	1,0918	1,0918	1,0577	1,0918	1,0577	1,0918	1,0577	1,0361	1,0918	1,0918
11	Energy - Annual Mwh	5,934,856	636,009	469,754	1,218	471,647	734,164	1,007,067	19,302	225,167	1,177,485	99,352	649,344	438,677	59,334	1,242,898	419,485	149,349	128,883
12																			
13																			
14																			
15	Customer																		
16	Annual Customers	478,485	64,649	9,372	34	4,491	3,525	2,034	50	230	572	52	121	56	2	34	2	6,108	2,062
17	Average Customers																	2,834	756
18																			
19	Unit Costs																		
20																			
21	Generation	\$74.54	\$74.54	\$74.54	\$74.54	\$74.54	\$74.54	\$74.54	\$74.54	\$74.54	\$74.54	\$74.54	\$74.54	\$74.54	\$74.54	\$74.54	\$74.54	\$74.54	\$74.54
22	Transmission	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34	\$75.34
23	Poles, Cond, Subst.	\$83.22	\$87.55	\$87.55	\$87.55	\$87.00	\$87.00	\$87.00	\$87.00	\$69.43	\$69.43	\$69.43	\$69.43	\$56.87	\$27.17	\$25.04	\$0.00	\$151.53	\$174.56
24	Transformers	\$1.51	\$1.96	\$1.96	\$0.00	\$1.96	\$1.96	\$1.96	\$0.00	\$1.96	\$1.96	\$1.96	\$0.00	\$1.96	\$0.00	\$0.00	\$0.00	\$1.96	\$1.96
25																			
26																			
27	Energy @ Generator	\$0.06147	\$0.06147	\$0.06147	\$0.06147	\$0.06147	\$0.06147	\$0.06147	\$0.06147	\$0.06147	\$0.06147	\$0.06147	\$0.06147	\$0.06147	\$0.06147	\$0.06147	\$0.06147	\$0.06147	\$0.06147
28																			
29	Commitment & Billing	\$367.57	\$551.16	\$972.70	1,418.56	\$1,108.54	\$1,243.39	\$1,766.36	\$1,355.01	\$2,208.97	\$2,211.43	\$1,606.95	3,941.76	\$2,868.25	\$3,918.17	\$2,844.66	\$44,514.88	1,442.08	1,709.18
30																			

\* Schedule 33 Cost of Service results are provided for informational purposes only.





PacifiCorp  
Oregon Marginal Cost Study  
5 Year Marginal Costs by Load Class  
December 2010 Dollars  
(Dollars in 000's)

Line	Billing Units	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)	(Q)	(R)	(S)
		Total	Residential (sec)	General Service - Schedule 23 (sec)	General Service - Schedule 23 (sec)	General Service - Schedule 23 (sec)	General Service - Schedule 23 (sec)	General Service - Schedule 23 (sec)	General Service - Schedule 23 (sec)	General Service - Schedule 23 (sec)	General Service - Schedule 23 (sec)	General Service - Schedule 23 (sec)	General Service - Schedule 23 (sec)	General Service - Schedule 23 (sec)	General Service - Schedule 23 (sec)	General Service - Schedule 23 (sec)	General Service - Schedule 23 (sec)	General Service - Schedule 23 (sec)	General Service - Schedule 23 (sec)	General Service - Schedule 23 (sec)
1	Peak MW @ Meter	System	886	79	72	0	71	116	145	3	31	163	14	90	60	7	156	46	21	18
2	Demand Loss Factor	1,1131	1,1131	1,1131	1,1131	1,1131	1,1131	1,1131	1,1131	1,0819	1,1131	1,0819	1,0819	1,1131	1,0819	1,1131	1,0819	1,0498	1,1131	1,1131
3	Peak MW @ Generator	System	966	88	80	0	79	129	161	3	35	181	15	101	65	8	169	49	23	20
4	Energy - Annual MWh @ Meter	12,517,399	5,435,846	582,532	430,256	1,152	431,990	672,435	922,391	18,249	206,234	1,078,480	93,931	594,746	414,743	54,345	1,175,179	404,889	136,792	118,046
5	Energy Loss Factor	1,0918	1,0918	1,0918	1,0918	1,0918	1,0918	1,0918	1,0918	1,0577	1,0918	1,0577	1,0577	1,0918	1,0577	1,0918	1,0577	1,0361	1,0918	1,0918
6	Energy - Annual MWh @ Generator	13,585,860	5,934,856	636,008	469,754	1,218	471,647	734,164	1,007,067	19,302	225,167	1,177,485	99,352	649,344	438,677	59,334	1,242,998	419,485	149,349	128,863
7	Average Customers	563,709	478,485	64,649	9,372	34	4,491	3,525	2,034	50	230	572	52	121	56	2	34	2	6,108	2,062
8	Unit Costs																		2,834	756
9	Generation - \$ / System Peak Kw		\$74.59	\$74.59	\$74.59	\$74.59	\$74.59	\$74.59	\$74.59	\$74.59	\$74.59	\$74.59	\$74.59	\$74.59	\$74.59	\$74.59	\$74.59	\$74.59	\$74.59	\$74.59
10	Energy @ Generator \$ / Kwh		\$0.05799	\$0.05799	\$0.05799	\$0.05799	\$0.05799	\$0.05799	\$0.05799	\$0.05799	\$0.05799	\$0.05799	\$0.05799	\$0.05799	\$0.05799	\$0.05799	\$0.05799	\$0.05799	\$0.05799	\$0.05799
11	Billing Related Costs		\$155.50	\$172.12	\$318.63	\$1,260.48	\$352.95	\$72.78	\$818.87	\$1,287.36	\$1,060.40	\$1,060.59	\$1,527.31	\$2,845.45	\$2,844.66	\$2,845.45	\$2,844.66	\$44,514.88	\$37.38	\$45.05
12	Marginal Costs \$000																		\$86.85	\$83.23
13	Total Demand Related	\$160,314	\$73,526	\$6,531	\$5,957	\$15	\$5,894	\$9,655	\$12,039	\$238	\$2,607	\$13,534	\$1,146	\$7,510	\$4,847	\$572	\$12,621	\$3,620	\$1,719	\$1,484
14	Total Energy Related	\$787,842	\$344,162	\$36,882	\$27,241	\$71	\$27,351	\$42,574	\$58,400	\$1,119	\$13,057	\$88,282	\$5,761	\$37,655	\$25,439	\$3,441	\$72,081	\$24,326	\$8,661	\$7,474
15	Billing Related Costs	\$94,813	\$74,403	\$11,127	\$2,986	\$43	\$1,585	\$1,314	\$1,666	\$64	\$244	\$607	\$79	\$344	\$159	\$6	\$97	\$69	\$475	\$156
16	Total Revenue @ Full MC	\$1,042,969	\$492,091	\$54,540	\$36,184	\$129	\$34,830	\$53,543	\$72,105	\$1,421	\$15,908	\$82,423	\$6,986	\$45,509	\$30,445	\$4,019	\$84,799	\$28,035	\$10,855	\$9,113

\* Schedule 33 Cost of Service results are provided for informational purposes only.

PacificCorp  
Oregon Marginal Cost Study  
1 Year Marginal Costs by Load Class  
December 2010 Dollars  
(Dollars in 000's)

Line	(A) Total	(B) Residential (sec)	(C) General Service - Schedule 23		(E) Schedule 23		(F) 0-50 kW		(G) 51-100 kW		(H) > 101kW		(I) Primary		(J) 0-300 kW		(K) 301+ kW		(L) Schedule 30		(M) 1 - 4 MW		(N) 1 - 4 MW		(O) 4 MW >		(P) Schedule 4B7		(Q) (tm)	(R) Irg Sch 41 (sec)	(S) Irg Sch 33* (sec)									
			0-15 kW	15+ kW	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)				(sec)								
Billing Units																																								
Energy																																								
1		5,435,846	582,532	430,256	1,152	431,990	672,435	922,391	18,249	206,234	1,078,480	93,931	594,746	414,743	54,345	1,175,179	404,889	136,792	118,046																					
2		1,0918	1,0918	1,0918	1,0577	1,0918	1,0918	1,0918	1,0577	1,0918	1,0577	1,0577	1,0918	1,0577	1,0918	1,0577	1,0361	1,0918	1,0918	1,0918																				
3		5,934,856	636,009	468,754	1,218	471,647	734,164	1,007,067	19,302	225,167	1,177,485	99,352	649,344	438,677	59,354	1,242,998	419,485	149,349	128,883																					
4																																								
5		571,879	64,649	9,372	34	4,491	3,525	2,034	50	230	572	52	121	56	2	34	2	6,108	2,062																					
6																																								
7																																								
8																																								
9																																								
10			\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189	\$0.06189			
11			\$172.12	\$318.63	1,260.48	\$352.95	372.79	\$818.87	\$1,287.36	\$1,060.40	\$1,060.59	\$1,527.31	\$2,845.45	\$2,844.66	\$2,845.45	\$2,844.66	\$44,514.88	\$37.38	\$86.85																					
12																																								
13																																								
14																																								
15																																								
16																																								
17			\$39,359	\$29,071	\$75	\$29,168	\$45,434	\$62,322	\$1,195	\$13,934	\$72,869	\$6,148	\$40,185	\$27,148	\$3,672	\$76,923	\$25,960	\$9,242	\$7,976																					
18			\$11,127	\$2,986	\$43	\$1,585	\$1,314	\$1,666	\$64	\$244	\$607	\$79	\$344	\$159	\$6	\$97	\$89	\$475	\$156																					
19			\$50,486	\$32,057	\$118	\$30,773	\$46,748	\$63,988	\$1,259	\$14,178	\$73,476	\$6,227	\$40,529	\$27,307	\$3,678	\$77,020	\$26,049	\$9,717	\$8,132																					
20																																								
21																																								
22																																								

\* Schedule 33 Cost of Service results are provided for informational purposes only.



Streetlight 1

PacifiCorp  
Oregon Marginal Cost Study  
Street Light and Recreational Lighting  
Commitment & Billing Related Cost per Customer

Line	Description	Schedule 51 Wood Pole Installations										Schedule 53	Schedule 54
		Company Owned					Customer Owned						
		70 Watt HPSV	100 Watt HPSV	150 Watt HPSV	200 Watt HPSV	250 Watt HPSV	400 Watt HPSV	100 Watt MH	175 Watt MH	250 Watt MH	400 Watt MH		
1	Light Installation Cost - per lamp	\$149.88	\$145.53	\$152.36	\$164.00	\$160.64	\$219.32	\$197.25	\$205.61	\$212.51	\$223.28	N. A.	N. A.
2													
3	<u>Distribution Commitment Costs - per customer</u>												
4	Acct. 364 Poles	\$82.92	\$82.92	\$82.92	\$82.92	\$82.92	\$82.92	\$82.92	\$82.92	\$82.92	\$82.92	\$82.92	\$82.92
5	Acct. 365 Conductors	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21
6	Acct. 368 Transformers	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.	364.38
7	Dist O&M at 36.1% of Total Investment	\$41.95	\$41.95	\$41.95	\$41.95	\$41.95	\$41.95	\$41.95	\$41.95	\$41.95	\$41.95	\$100.58	\$173.56
8	Acct. 370 Meters											\$12.87	\$5.49
9	Meters at 42.69% of Total Investment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$5.49
10	Total Commitment Related	\$158.08	\$158.08	\$158.08	\$158.08	\$158.08	\$158.08	\$158.08	\$158.08	\$158.08	\$158.08	\$379.04	\$672.43
11													
12	Billing Costs per Customer	\$41.16	\$41.16	\$41.16	\$41.16	\$41.16	\$41.16	\$41.16	\$41.16	\$41.16	\$41.16	\$41.16	\$58.52
13													
14	Total Marginal Commitment & Billing Cost per Cust.	\$199.24	\$199.24	\$199.24	\$199.24	\$199.24	\$199.24	\$199.24	\$199.24	\$199.24	\$199.24	\$420.20	\$730.96

Sources:

- Line 1 "Distribution Cost Development For Street Lighting"
- Line 4 'Hypothetical Feeder Study Results Annual Demand and Commitment Costs'
- Line 5 'Hypothetical Feeder Study Results Annual Demand and Commitment Costs'
- Line 6 'Transformer Commitment Costs By Customer Load Class'
- Line 7 Sum of lines 4 to 6 multiplied by
- Line 14 Distribution O&M Expense Loading Factor as a Percent of Dist. Plant'
- Sum of Commitment & Billing Costs per Customer

PacificCorp  
Oregon Marginal Cost Study  
Street Light and Recreational Lighting  
Full Marginal Cost by Schedule

Line	Description	Units	Schedule 51										Schedule 53	Schedule 54	Total Streetlighting		
			5,800 Lumen 70 Watt No. New Service	9,500 Lumen 100 Watt	16,000 Lumen 150 Watt	27,500 Lumen 250 Watt	50,000 Lumen 400 Watt	90,000 Lumen 100 Watt	12,000 Lumen 17.5 Watt	19,500 Lumen 250 Watt	32,000 Lumen 400 Watt	Customer Owned	Customer Owned				
1	Generation Energy \$/kWh @ Generator	\$/kWh	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571	\$0.05571
2	Transmission Energy \$/kWh @ Generator	\$/kWh	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381	\$0.00381
3	Energy @ Meter 2008	kWh	1,753,087	6,557,611	31,849	5,887,146	56,756	2,328,125	0	718	0	0	0	9,277,495	1,004,784	0	0
4	Energy @ Meter 2010	kWh	1,697,104	6,346,186	30,832	5,695,146	54,944	2,253,778	0	685	0	0	0	9,316,113	815,719	0	0
5	Losses	kWh	1,091,800	1,091,800	1,091,800	1,091,800	1,091,800	1,091,800	1,091,800	1,091,800	1,091,800	1,091,800	1,091,800	1,091,800	1,091,800	1,091,800	1,091,800
6	Energy @ Generator - (5)*(6)	kWh	1,852,896	6,930,963	33,662	6,222,328	59,988	2,460,675	0	759	0	0	0	10,171,332	890,602	0	0
7	Generation Energy Related Marginal Costs - (1)*(7)	\$	\$103,225	\$386,124	\$1,875	\$346,646	\$3,342	\$137,084	\$0	\$42	\$0	\$0	\$0	\$566,645	\$49,615	\$0	\$1,594,599
8	Transmission Energy Related Marginal Costs - (2)*(7)	\$	\$7,064	\$28,423	\$128	\$23,722	\$229	\$9,381	\$0	\$3	\$0	\$0	\$0	\$38,777	\$3,395	\$0	\$109,122
9	Commitment	#	56,551	149,058	498	69,268	494	13,228	-	8	-	-	-	-	-	-	-
10	Total of Monthly Lamp Billing Units 2008	#	4,713	12,422	42	5,772	41	1,102	-	1	-	-	-	-	-	-	-
11	Number of Lamps 2008 - (13)/12	#	0.968	0.968	0.968	0.968	0.968	0.968	0.968	0.968	0.968	0.968	0.968	0.968	0.968	0.968	0.968
12	Escalation factor	#	4,582	12,025	40	5,588	40	1,087	-	1	-	-	-	-	-	-	-
13	Number of Lamps 2010	#	\$149,88	\$145,53	\$152,36	\$164,00	\$219,32	\$205,61	\$212,51	\$223,28	\$219,32	\$212,51	\$223,28	\$219,32	\$212,51	\$223,28	\$219,32
14	Light Installation Cost	\$/Lamp	\$663,749	\$1,749,974	\$5,121	\$916,452	\$5,402	\$234,040	\$0	\$137	\$0	\$0	\$0	\$3,566,876	\$3,566,876	\$0	\$0
15	Light Installation Related	\$/Lamp	117	282	13	185	13	65	-	1	-	-	-	105	105	-	1,041
16	Average customers - 2010	#	82.92	82.92	82.92	82.92	82.92	82.92	82.92	82.92	82.92	82.92	82.92	82.92	82.92	82.92	82.92
17	Act. 364 Poles	\$/Customer	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21	\$33.21
18	Act. 365 Conductors	\$/Customer	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
19	Act. 368 Transformers	\$/Customer	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
20	Act. 370 Meters	\$/Customer	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
21	Act. 364 Poles with O&M	\$/Customer	\$13,206	\$32,958	\$1,467	\$20,881	\$1,467	\$7,337	\$0	\$113	\$0	\$0	\$0	\$28,218	\$11,851	\$0	\$117,488
22	Act. 365 Conductors with O&M	\$/Customer	\$5,289	\$13,200	\$568	\$8,363	\$568	\$2,938	\$0	\$45	\$0	\$0	\$0	\$11,301	\$4,747	\$0	\$47,059
23	Act. 368 Transformers with O&M	\$/Customer	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
24	Act. 370 Meter with O&M	\$/Customer	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
25	Total Poles, Conductors, Transformers	\$/Customer	\$18,495	\$46,158	\$2,055	\$29,244	\$2,055	\$10,275	\$0	\$158	\$0	\$0	\$0	\$94,760	\$70,605	\$0	\$273,805
26	Total Commitment Marginal Cost	\$/Customer	\$702,244	\$1,796,133	\$8,176	\$945,696	\$8,457	\$244,315	\$0	\$295	\$0	\$0	\$0	\$94,760	\$70,605	\$0	\$3,870,681
27	Billing / Customer	\$/Customer	\$29.69	\$29.69	\$29.69	\$29.69	\$29.69	\$29.69	\$29.69	\$29.69	\$29.69	\$29.69	\$29.69	\$29.69	\$29.69	\$29.69	\$29.69
28	Billing Related	\$/Customer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	Meter Reading	\$/Customer	\$11.47	\$11.47	\$11.47	\$11.47	\$11.47	\$11.47	\$11.47	\$11.47	\$11.47	\$11.47	\$11.47	\$11.47	\$11.47	\$11.47	\$11.47
30	Customer Other	\$/Customer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	Billing Related	\$/Customer	3,474	8,671	388	5,493	388	1,930	-	30	-	-	-	7,423	3,118	-	\$30,911
32	Customer Other	\$/Customer	1,342	3,350	149	2,122	149	746	-	11	-	-	-	2,868	1,204	-	\$1,823
33	Total Billing Related Marginal Cost	\$/Customer	\$4,816	\$12,020	\$555	\$7,616	\$555	\$2,676	\$0	\$41	\$0	\$0	\$0	\$10,291	\$6,145	\$0	\$44,975
34	Total Marginal Cost	\$/Customer	\$817,349	\$2,220,700	\$10,715	\$1,323,680	\$12,563	\$393,456	\$0	\$382	\$0	\$0	\$0	\$710,473	\$129,761	\$0	\$5,619,078
35	Generation	\$/Customer	\$978,338	\$666,645	\$49,615	\$1,594,599	\$49,615	\$109,122	\$0	\$3	\$0	\$0	\$0	\$3,566,876	\$3,566,876	\$0	\$3,915,356
36	Transmission	\$/Customer	\$66,950	\$38,777	\$3,395	\$3,870,681	\$3,395	\$109,122	\$0	\$12	\$0	\$0	\$0	\$109,122	\$109,122	\$0	\$109,122
37	Distribution	\$/Customer	\$3,705,316	\$94,760	\$70,605	\$30,911	\$3,118	\$1,928	\$0	\$158	\$0	\$0	\$0	\$94,760	\$70,605	\$0	\$273,805
38	Customer - Billing	\$/Customer	\$20,370	7,423	1,823	\$1,823	1,204	\$11,941	\$0	\$41	\$0	\$0	\$0	\$10,291	\$6,145	\$0	\$44,975
39	Customer - Metering	\$/Customer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	Customer - Other	\$/Customer	\$4,778,844	\$710,473	\$129,761	\$5,619,078	\$129,761	\$5,619,078	\$129,761	\$5,619,078	\$129,761	\$5,619,078	\$129,761	\$5,619,078	\$129,761	\$5,619,078	\$129,761
41	Generation	\$/Customer	\$978,338	\$666,645	\$49,615	\$1,594,599	\$49,615	\$109,122	\$0	\$3	\$0	\$0	\$0	\$3,566,876	\$3,566,876	\$0	\$3,915,356
42	Transmission	\$/Customer	\$66,950	\$38,777	\$3,395	\$3,870,681	\$3,395	\$109,122	\$0	\$12	\$0	\$0	\$0	\$109,122	\$109,122	\$0	\$109,122
43	Distribution	\$/Customer	\$3,705,316	\$94,760	\$70,605	\$30,911	\$3,118	\$1,928	\$0	\$158	\$0	\$0	\$0	\$94,760	\$70,605	\$0	\$273,805
44	Customer - Billing	\$/Customer	\$20,370	7,423	1,823	\$1,823	1,204	\$11,941	\$0	\$41	\$0	\$0	\$0	\$10,291	\$6,145	\$0	\$44,975
45	Customer - Metering	\$/Customer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	Customer - Other	\$/Customer	\$4,778,844	\$710,473	\$129,761	\$5,619,078	\$129,761	\$5,619,078	\$129,761	\$5,619,078	\$129,761	\$5,619,078	\$129,761	\$5,619,078	\$129,761	\$5,619,078	\$129,761



Streetlight 4

PacifiCorp  
Oregon Marginal Cost Study  
Cost of Streetlighting Transformer

Transformer Cost Per Light - 70 Watt

Assume Installed Cost 25 KVA Transformer is			\$ 1,381
Lamp Line Watts	=	83 watts	
+ Ballast (Encasement) Loss	3.0%	2.49	
+ Circuit Loss	5.0%	4.15	
		89.64	
Transformer Cost = Total Watts/25,000 X Installed Cost			
		89,6/25000 X \$1381 =	\$ 4.95

Transformer Cost Per Light - 200 Watt

Assume Installed Cost 25 KVA Transformer is			\$ 1,381
Lamp Line Watts	=	238 watts	
+ Ballast (Encasement) Loss	3.0%	7.14	
+ Circuit Loss	5.0%	11.9	
		257.04	
Transformer Cost = Total Watts/25,000 X Installed Cost			
		246.24/25000 X \$138 =	\$ 14.20

Transformer Cost Per Light - 100 Watt

Assume installed Cost 25 KVA Transformer is			\$ 1,381
Lamp Line Watts	=	117 watts	
+ Ballast (Encasement) Loss	3.0%	3.51	
+ Circuit Loss	5.0%	5.85	
		126.36	
Transformer Cost = Total Watts/25,000 X Installed Cost			
		126.36/25000 X \$13=	\$ 6.98

Transformer Cost Per Light - 400 Watt

Assume Installed Cost 25 KVA Transformer is			\$ 1,381
Lamp Line Watts	=	468 watts	
+ Ballast (Encasement) Loss	3.0%	14.04	
+ Circuit Loss	5.0%	23.4	
		505.44	
Transformer Cost = Total Watts/25,000 X Installed Cost			
		508.68/25000 X \$138 =	\$ 27.92

Source:  
Study by Tom Yousko 11/96  
Transformer Regression

Transformer Cost Per Light - 150 Watt

Assume Installed Cost 25 KVA Transformer is			\$ 1,381
Lamp Line Watts	=	171 watts	
+ Ballast (Encasement) Loss	3.0%	5.13	
+ Circuit Loss	5.0%	8.55	
		184.68	
Transformer Cost = Total Watts/25,000 X Installed Cost			
		246.24/25000 X \$13=	\$ 10.20

Transformer Cost Per Light - 175 Watt

Assume Installed Cost 25 KVA Transformer is			\$ 1,381
Lamp Line Watts	=	208 watts	
+ Ballast (Encasement) Loss	3.0%	6.24	
+ Circuit Loss	5.0%	10.4	
		224.64	
Transformer Cost = Total Watts/25,000 X Installed Cost			
		246.24/25000 X \$138 =	\$ 12.41

Transformer Cost Per Light - 250 Watt

Assume Installed Cost 25 KVA Transformer is			\$ 1,381
Lamp Line Watts	=	305 watts	
+ Ballast (Encasement) Loss	3.0%	9.15	
+ Circuit Loss	5.0%	15.25	
		329.4	
Transformer Cost = Total Watts/25,000 X Installed Cost			
		508.68/25000 X \$13=	\$ 18.20





**Capacity**

PacifiCorp  
Oregon Marginal Cost Study  
Marginal Capacity Costs  
Based on Avoided Capacity Costs

Calendar Year (12 Mo Ended Dec)	(A) Projected Capacity \$/kW	(B) Present Value Factors @ 8.53%	(C) PV of Capacity \$/kW (A) x (B)	(D) Capacity Mills/kWh (A) / 0.487	(E) PV of Capacity Mills/kWh (B) * (D)
2010	\$74.50	1.0000	74.50	17.46	17.46
2011	\$76.06	0.9214	70.08	17.83	16.43
2012	\$77.59	0.8490	65.87	18.19	15.44
2013	\$79.05	0.7823	61.84	18.53	14.50
2014	\$80.55	0.7208	58.06	18.88	13.61
2015	\$82.08	0.6642	54.52	19.24	12.78
2016	\$83.64	0.6120	51.19	19.61	12.00
2017	\$85.23	0.5639	48.06	19.98	11.27
2018	\$86.86	0.5196	45.13	20.36	10.58
2019	\$88.50	0.4788	42.37	20.74	9.93
2020	\$90.18	0.4412	39.79	21.14	9.33
2021	\$91.89	0.4065	37.35	21.54	8.76
2022	\$93.65	0.3746	35.08	21.95	8.22
2023	\$95.42	0.3452	32.94	22.37	7.72
2024	\$97.23	0.3181	30.93	22.79	7.25
2025	\$99.08	0.2931	29.04	23.22	6.81
2026	\$100.97	0.2701	27.27	23.67	6.39
2027	\$102.88	0.2489	25.61	24.12	6.00
2028	\$104.84	0.2293	24.04	24.58	5.64
2029	\$106.83	0.2113	22.57	25.04	5.29
2010	1 Year - Sum of PV Costs	@ 8.53%	\$/kW 74.50		mills / kWh 17.46
2010 - 2014	5 Year - Short Run - Sum of PV Costs Annual Cost of Capacity @ 22.58%	@ 8.53%	\$330.35 74.59		\$77.44 17.49
2010 - 2019	10 Years - Medium Run - Sum of PV Costs Annual Cost of Capacity @ 13.04%	@ 8.53%	\$571.62 74.54		134.00 17.47
2010 - 2029	20 Years - Long Run - Sum of PV Costs Annual Cost of Capacity @ 8.50%	@ 8.53%	\$876.24 74.48		205.41 17.46

Footnote: Ore Commission Approved - AC Study (2007 08 13).xls  
Column A: Total Cost of Simple Cycle: Table 8, Page 1, column (f)



Energy

PacifiCorp  
Oregon Marginal Cost Study  
Marginal Generation Energy Costs  
Nominal Mills / kWh

Calendar Year (12 Mo. Ended Dec)	(A) SCCT Fixed Costs (\$/kW-yr) (1)	(B) SCCT Fixed Costs (\$/kW-mo) (2)	(C) CCCT Fixed Costs (\$/kW-yr) (3)	(D) CCCT Fixed Costs (\$/kW-mo) (4)	(E) Capitalized Energy Cost (\$/kW-mo) (4) - (2) = (5)	(F) Capitalized Energy Cost 48.7% CF (\$/MWh) (6)	(G) Purchase Cost (\$/MWh) (7)	(H) Updated Gas Price (\$/MMBtu) (8)	(I) CCCT Energy Costs 7270 Btu/kWh (\$/MWh) (9)	(J) Variable Avoided Energy Cost (\$/MWh) (7) + (9) = (10)	(K) Capitalized Energy Cost 48.7% CF (\$/MWh) (6) = (11)	(L) Total Avoided Energy Cost (\$/MWh) (10) + (11) = (12)	(M) Present Value Factors (13) @ 8.53%	(N) Present Value of Energy (14) (12) * (13)
2010	74.50	6.21	90.39	7.53	1.32	3.72	0.00	8.00	58.16	58.16	3.72	61.88	1.0000	61.89
2011	76.06	6.34	92.27	7.69	1.35	3.80	0.00	7.78	56.56	56.56	3.80	60.36	0.9214	55.62
2012	77.59	6.47	94.12	7.84	1.38	3.87	0.00	7.53	54.74	54.74	3.87	58.62	0.8490	49.77
2013	79.05	6.59	95.92	7.99	1.41	3.95	0.00	7.52	54.67	54.67	3.95	58.62	0.7823	45.86
2014	80.55	6.71	97.74	8.15	1.43	4.03	0.00	7.78	56.56	56.56	4.03	60.59	0.7208	43.67
2015	82.08	6.84	99.60	8.30	1.46	4.11	0.00	8.13	59.11	59.11	4.11	63.21	0.6642	41.99
2016	83.64	6.97	101.49	8.46	1.49	4.18	0.00	8.28	60.20	60.20	4.18	64.38	0.6120	39.40
2017	85.23	7.10	103.42	8.62	1.52	4.26	0.00	8.42	61.21	61.21	4.26	65.48	0.5639	36.92
2018	86.86	7.24	105.38	8.78	1.54	4.34	0.00	8.56	62.23	62.23	4.34	66.57	0.5196	34.59
2019	88.50	7.38	107.38	8.95	1.57	4.43	0.00	8.72	63.39	63.39	4.43	67.82	0.4788	32.47
2020	90.18	7.52	109.42	9.12	1.60	4.51	0.00	8.89	64.63	64.63	4.51	69.14	0.4412	30.51
2021	91.89	7.66	111.50	9.29	1.63	4.60	0.00	8.80	63.98	63.98	4.60	68.57	0.4065	27.88
2022	93.65	7.80	113.62	9.47	1.66	4.68	0.00	8.75	63.61	63.61	4.68	68.29	0.3746	25.58
2023	95.42	7.95	115.78	9.65	1.70	4.77	0.00	8.73	63.47	63.47	4.77	68.24	0.3452	23.56
2024	97.23	8.10	117.98	9.83	1.73	4.86	0.00	8.63	62.74	62.74	4.86	67.60	0.3181	21.51
2025	99.08	8.26	120.22	10.02	1.76	4.96	0.00	8.56	62.23	62.23	4.96	67.19	0.2931	19.69
2026	100.97	8.41	122.51	10.21	1.80	5.05	0.00	8.48	61.65	61.65	5.05	66.70	0.2701	18.02
2027	102.88	8.57	124.84	10.40	1.83	5.15	0.00	8.50	61.80	61.80	5.15	66.94	0.2489	16.66
2028	104.84	8.74	127.20	10.60	1.86	5.24	0.00	8.57	62.30	62.30	5.24	67.55	0.2293	15.49
2029	106.83	8.90	129.62	10.80	1.90	5.34	0.00	8.60	62.52	62.52	5.34	67.86	0.2113	14.34

2010 1 Year - Sum of PV Costs Mills / kWh  
61.89

2010 - 2014 5 Year - Short Run -  
Sum of PV Costs @ 8.53% = 256.80  
Annual Cost of Energy @ 22.58% = 57.99

2010 - 2019 10 Years - Medium Run -  
Sum of PV Costs @ 8.53% = 442.17  
Annual Cost of Energy @ 13.04% = 57.66

2010 - 2029 20 Years - Long Run -  
Sum of PV Costs @ 8.53% = 655.40  
Annual Cost of Energy @ 8.50% = 55.71

Footnote:  
Source: Ore Commission Approved - AC Study (2007 08 13).xls  
Column A: Total Cost of Simple Cycle: Table 8, Page 1, column (f)  
Column C: Total Cost of Combined Cycle: Table 8, Page 2, column (f)  
Column H: Gas Price: Table 9, Column (d)  
Column I: Heat Rate: for CCCT: Table 8, Page 3

**Avoided Costs**

PacifiCorp Marginal Generation Costs Filed						
Calendar Year	12 Months Ended December			12 Months Ended December		
	Avoided Simple Cycle CT Fixed Costs (\$/kW-yr)	Avoided Combined Cycle CT Fixed Costs (\$/kW-yr)	Gas Price (\$/MMBtu)	Avoided Firm Capacity Costs (\$/kW-yr)	Combined Cycle CT Fixed Cost (\$/kW-yr)	Gas Price (\$/MMBtu)
2010	74.50	90.39	8.00	74.50	90.39	8.00
2011	76.06	92.27	7.78	76.06	92.27	7.78
2012	77.59	94.12	7.53	77.59	94.12	7.53
2013	79.05	95.92	7.52	79.05	95.92	7.52
2014	80.55	97.74	7.78	80.55	97.74	7.78
2015	82.08	99.60	8.13	82.08	99.60	8.13
2016	83.64	101.49	8.28	83.64	101.49	8.28
2017	85.23	103.42	8.42	85.23	103.42	8.42
2018	86.86	105.38	8.56	86.86	105.38	8.56
2019	88.50	107.38	8.72	88.50	107.38	8.72
2020	90.18	109.42	8.89	90.18	109.42	8.89
2021	91.89	111.50	8.80	91.89	111.50	8.80
2022	93.65	113.62	8.75	93.65	113.62	8.75
2023	95.42	115.78	8.73	95.42	115.78	8.73
2024	97.23	117.98	8.63	97.23	117.98	8.63
2025	99.08	120.22	8.56	99.08	120.22	8.56
2026	100.97	122.51	8.48	100.97	122.51	8.48
2027	102.88	124.84	8.50	102.88	124.84	8.50
2028	104.84	127.20	8.57	104.84	127.20	8.57
2029	106.83	129.62	8.60	106.83	129.62	8.60

Source:	Ore Commission Approved - AC Study (2007 08 13).xls Total Cost of Simple Cycle: Table 8, Page 1, column (f) Total Cost of Combined Cycle: Table 8, Page 2, column (f) Gas Price: Table 9, Column (b)	(Fiscal Year): (Previous Year * 75%)+(Current Year * 25%)  (Calendar Year): (Previous Year * 0%)+(Current Year * 100%)  Previous Yr = 0% Current Yr = 100%
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Transm1

PacifiCorp  
Oregon Marginal Cost Study  
Marginal Transmission Investment and O&M Expenses  
December 2010 Dollars

Line	Item	(A) Total (B) + (C)	(B) Demand Related	(C) Energy Related
1	2010 Forecasted	222,610	189,195	33,415
2	2011 Forecasted	245,958	190,266	55,692
3	2012 Forecasted	152,842	100,863	51,979
4	2013 Forecasted	96,192	62,034	34,158
5	2014 Forecasted	85,006	50,848	34,158
7	Growth Related Investments - (2010 to 2014 in \$000's)	\$802,608	\$593,206	\$209,402
9	System Growth mW's from 2010-2014	913	913	913 mW
11	Marginal Investment (7) / (9)	\$879.09	\$649.73	\$229.36 /kW
13	Annualized Investment (11) x 8.68%	\$76.31	\$56.40	\$19.91 /kW
14	Admin. & General Factor (11) x 1.71%	\$15.03	\$11.11	\$3.92 /kW
15	Annual O&M Expenses (11) x 1.205%	\$10.59	\$7.83	\$2.76 /kW
17	Annualized Marginal Cost Sum (13) to (15)	\$101.93	\$75.34	\$26.59 /kW
19	Marginal Cost of Energy-Related Transmission			\$0.00381 /kWh
20	\$26.59 / 8760 hours / 79.62% Load Factor))			

Footnote:

- Lines 1-7 Tab 6.2 (Transm2:) `2010-2014 Forecasted Transmission'
- Line 9 Peak Load Forecast Detail, Dec. 16, 2008 - Forecasting Dept.
- Line 13 Tab 15.1 (Charge 1:) `Calculation of Annual Charges' (for 8.68% factor)
- Line 14 Tab 15.1 (Charge 1:) `Calculation of Annual Charges' (for 1.71% factor)
- Line 15 Tab 6.3 (Tran\_OM:) `Transmission O & M Expenses' (for 1.205% factor)
- Line 20 See Tab "TransLF"

**Transm2**

PacifiCorp  
Oregon Marginal Cost Study  
2010-2014 Forecasted Transmission  
December 2010 Dollars( in 000's)

(A) Line	(B) Description	Forecast					(H) Total
		(C) 2010	(D) 2011	(E) 2012	(F) 2013	(G) 2014	
1	Bulk Power Lines (grid)	45,000	75,000	70,000	46,000	46,000	
2	price adjustment factor	<u>0.975</u>	<u>0.975</u>	<u>0.975</u>	<u>0.975</u>	<u>0.975</u>	
3	Adjusted Bulk Power Lines (grid)	43,886	73,144	68,268	44,862	44,862	275,021
4							
5	Growth Related Major Projects (local)	183,260	177,200	86,720	52,633	41,163	
6	price adjustment factor	<u>0.975</u>	<u>0.975</u>	<u>0.975</u>	<u>0.975</u>	<u>0.975</u>	
7	Adjusted Growth Related Major Projects (local)	178,724	172,814	84,574	51,330	40,144	527,587
8							
9	Bulk Power Lines - Demand Related	10,471	17,452	16,289	10,704	10,704	
10	Line (3) x Demand Factor						
11	23.86%						
12	Bulk Power Lines - Energy Related	33,415	55,692	51,979	34,158	34,158	209,401
13	Line (3) - Line (9)						
14							
15	Total Growth Demand Related	189,195	190,266	100,863	62,034	50,848	593,207
16	Line (7) + Line (9)						
17							
18	\$ Demand Related	\$189,195	\$190,266	\$100,863	\$62,034	\$50,848	\$593,206
19	\$ Energy Related	\$33,415	\$55,692	\$51,979	\$34,158	\$34,158	\$209,402
20							
21	Total Marginal Transmission Investment	\$222,610	\$245,958	\$152,842	\$96,192	\$85,006	\$802,608

Footnotes:

Line 1 & 5 Bulk power line & growth related projects data provided in 2007 dollars; no price adjustment required.

Line 10 Demand Portion of Transmission =  $17.46 / (17.46 + 55.71) =$  23.86%

PacifiCorp  
Transmission O & M Expenses  
(Dollars in 000's)

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
Line	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Description										
1	97,034	83,874	103,968	123,213	102,419	105,962	105,324	115,283	136,930	154,195
2	74,244	71,336	78,405	94,737	76,949	77,497	76,944	83,360	94,111	106,592
3	22,789	12,538	25,563	28,476	25,469	28,465	28,379	31,922	42,820	47,603
Line (1) - (2)										
4	2,102,335	2,135,940	2,172,469	2,232,246	2,299,173	2,396,665	2,487,677	2,578,317	2,688,839	2,874,659
5	1.084%	0.587%	1.177%	1.276%	1.108%	1.188%	1.141%	1.238%	1.593%	1.656%
Line (3) / (4)										

Source:  
PacifiCorp FERC Form 1  
(1) page 321, line 112  
(3) page 321, line 96





**Dist Sub 1**

PacifiCorp  
Oregon Marginal Cost Study  
Distribution Substation Costs / kW  
December 2010 Dollars

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Line		
1	Incremental Substation Cost - \$ / kW	\$159.23
2		
3	Annual Distribution Carrying Charge	10.77%
4		
5	Substation Marginal Cost - \$ / kW	\$17.15 / kW

Dist Sub 2

PacifiCorp  
Marginal Cost Study  
Substation Investment

In Service Year	Substation Capacity Project	State	Capacity Increase (MVA)	Installed Cost (Dollars in 000's)	Cost Per MVA (Dollars in 000's)
2008	Umapine Sub: Increase Capacity	WA	7.5	\$710	\$95
2008	Yew Ave 115-12.5 kV sub and tap line	OR	25.0	\$9,211	\$368
2008	Hopland Substation - Increase Capacity	WA	15.6	\$2,200	\$141
2008	Lucern Sub - Convert Sub to 115 kV	CA	5.0	\$800	\$160
2008	Weed Substation - Convert to 115 kV and Ince	CA	12.5	\$3,800	\$304
2009	Texum Sub - Rebuild Sub & Increase Capacity	OR	8.0	\$3,800	\$475
2009	West Grants Pass Area Sub (South River)	OR	25.0	\$6,076	\$243
2010	Stevens Road Sub - Install 2nd Transformer	OR	25.0	\$2,250	\$90
2010	River Road Substation - Increase Capacity (25	WA	25.0	\$2,000	\$80
2010	China Hat Substation - Increase Capacity (25 M	OR	25.0	\$2,100	\$84
2011	Independence Sub - Install 2nd Transformer	OR	25.0	\$2,500	\$100
2011	Vine Street & Oremet Overload Relief Project -	OR	25.0	\$4,000	\$160
2011	Barnes Butte Substation	OR	25.0	\$5,500	\$220
2012	Griffin Creek Sub: Increase Capacity	OR	25.0	\$2,800	\$112
2012	Takelma Sub - Capacity Solution	OR	13.0	\$1,500	\$115
2012	Shevlin Park Sub: Increase Capacity	OR	25.0	\$2,300	\$92
2008	Ammon Sub - Increase capacity; Replace tran	ID	3.5	\$322	\$92
2008	Burton Sub - Increase capacity	UT	4.3	\$355	\$83
2008	Clifton Sub - Increase Capacity	ID	5.8	\$355	\$61
2008	Commerce Sub - New 138kV Sub	UT	30	\$5,749	\$192
2008	Cozydale Sub - Build New 138-12 5kV Sub	UT	30.0	\$4,859	\$162
2008	Garden City Sub - Increase Capacity	UT	3.8	\$355	\$95
2008	Grantsville Sub - Cap Incr 46-12 5kV - 25MVA	UT	8.4	\$1,591	\$189
2008	Henefer Sub - Increase Capacity	UT	3.6	\$355	\$99
2008	Riverston Sub - Capacity Increase 25MVA	WY	25.0	\$2,427	\$97
2009	Central Sub - 46-12 5kV Increase Capacity	UT	12	\$425	\$35
2009	Copper Hills Sub - New 138-12 5kV Sub	UT	30	\$5,439	\$181
2009	Decade Sub - 1 & 2 New 138 12 5kV 60MVA Su	UT	60.0	\$7,670	\$128
2009	East Layton Sub - Install 2nd 30MVA Trnsmr-Di	UT	30	\$4,547	\$152
2009	Granger - 1 Incr Cap of 46-12 5kV & Dist Feede	UT	14.0	\$1,660	\$119
2009	Morton Court - Instl 2nd 138-12 5kV Trnsfm	UT	30	\$5,342	\$178
2009	Oqurrh - Increase capacity	UT	700.0	\$51,500	\$74
2009	Pine Canyon - Install 2nd 138-12.5 kV XFMR	UT	30	\$4,873	\$162
2009	Shoreline - New 138-12.5kV Sub	UT	60.0	\$9,266	\$154
2009	Spanish Valley - 69-12.5kV Incr Capacity	UT	9.0	\$424	\$47
2009	Summit Creek - Increase Capacity	UT	16.0	\$1,238	\$77
2009	Three Peaks - 345kV Source Cedar City	UT	450.0	\$44,376	\$99
2009	Chimney Butte 230-69kV	WY	75	\$25,000	\$333
2009	White Rock - New 138-12.5kV Sub	UT	16.0	\$4,712	\$295
2010	90th South - Inst 2nd 138-12.5 kV XFMR	UT	30	\$4,601	\$153
2010	Eden Sub - Increase Capacity	UT	10	\$1,185	\$119
2010	Farmington - Install 2nd Xfmr	UT	30	\$4,580	\$153
2010	Juab - 46/12.5 kV Increase Capacity	UT	8.5	\$924	\$109
2010	Moab - Increase Capacity	UT	9.0	\$1,520	\$169
2010	Rainbow - Increase Capacity 12.5MVA	WY	12.5	\$2,887	\$231
2010	Saratoga - Add 2nd Trnsf Reblid Tran Jumber	UT	30.0	\$6,115	\$204
2010	Silver Creek - Install 2nd 138-12.5, 30 MVA Xfm	UT	30	\$4,334	\$144
2010	Sky Park - 138-12.5kv 30MVA substation	UT	30	\$5,166	\$172
2010	Summit Park - Increase Capacity	UT	23.0	\$3,000	\$130
2010	Vickers - 46/12.5 kV Increase Capacity	UT	8.0	\$1,541	\$193
2011	American Fork - 2nd 138-12.5 kV 30 MVA xfmr	UT	30	\$4,539	\$151
2011	Brian Head - Convert to 69kV	UT	14.0	\$2,054	\$147
2011	Downey - Increase Capacity	ID	5.0	\$616	\$123
2011	Malad - Increase Capacity	ID	16.0	\$3,081	\$193
2011	Pleasant View - Increase capacity	UT	10.0	\$2,054	\$205
2011	Preston - Increase capacity	ID	10	\$1,027	\$103
2011	Richfield #2 - 46-12.5 kV Increase Capacity	UT	13.0	\$2,157	\$166
2011	Saddleback - New 138-12.5 kV Sub & Transmis	UT	30	\$7,000	\$233
2011	Sugarmill - Add 161/12.5, 30 MVA Xfmr	ID	30	\$5,186	\$173
2011	Wolf Creek - 138-12.5kV	UT	30.0	\$4,000	\$133
2012	Fiddlers Canyon - New 138-12.5 kV Sub Site	UT	30	\$5,063	\$169

1873.5      \$307,017

Incremental Substation Cost

Pacific \$'s      \$51,547  
Plateau \$'s      \$255,470  
2007 Actual      \$307,017

Incremental Substation Cost

Indexed to 2010  
Pacific \$'s      \$51,054  
Plateau \$'s      \$247,255  
Total \$'s      \$298,309

2007 Incremental Substation Cost \$/kVa

\$ 159.23

INDEX			
	2008	2010	Escalation Factor
Pacific	595.6	589.9	0.9904
Plateau	531.8	514.7	0.9678



PacifiCorp  
Oregon Marginal Cost Study  
Hypothetical Feeder Study Results  
Annual Demand and Commitment Costs  
December 2010 Dollars

Line	Load Class	(A) (B) (C) (D) (E) (F) (G) (H)								
		Investment \$/kW		Annual \$/kW		Investment \$/Customer		Annual \$/Customer		
		Poles	Conductor	Poles	Conductor	Poles	Conductor	Poles	Conductor	
				(A) x 10.77%	(B) x 10.77%			(E) x 10.77%	(F) x 10.77%	
1	Res - Schedule 4	(sec)	\$155.21	\$253.21	\$16.72	\$27.27	\$671.95	\$269.13	\$72.37	\$28.99
2										
3	GS - Schedule 23									
4	0-15 kW	(sec)	\$167.63	\$270.38	\$18.05	\$29.12	\$769.89	\$308.35	\$82.92	\$33.21
5	15+ kW	(sec)	\$167.63	\$270.38	\$18.05	\$29.12	\$769.89	\$308.35	\$82.92	\$33.21
6	Primary	(pri)	\$167.63	\$270.38	\$18.05	\$29.12	\$769.89	\$308.35	\$82.92	\$33.21
7										
8	GS - Schedule 28									
9	0-50 kW	(sec)	\$107.90	\$189.90	\$11.62	\$20.45	\$329.52	\$131.98	\$35.49	\$14.21
10	51-100 kW	(sec)	\$107.90	\$189.90	\$11.62	\$20.45	\$329.52	\$131.98	\$35.49	\$14.21
11	> 101kW	(sec)	\$107.90	\$189.90	\$11.62	\$20.45	\$329.52	\$131.98	\$35.49	\$14.21
12	Primary	(pri)	\$107.90	\$189.90	\$11.62	\$20.45	\$329.52	\$131.98	\$35.49	\$14.21
13										
14	GS - Schedule 30									
15	0-300 kW	(sec)	\$114.75	\$199.66	\$12.36	\$21.50	\$387.93	\$155.37	\$41.78	\$16.73
16	301+ kW	(sec)	\$114.75	\$199.66	\$12.36	\$21.50	\$387.93	\$155.37	\$41.78	\$16.73
17	Primary	(pri)	\$114.75	\$199.66	\$12.36	\$21.50	\$387.93	\$155.37	\$41.78	\$16.73
18										
19	LPS - Schedule 48T									
20	1 - 4 MW	(sec)	\$78.39	\$150.33	\$8.44	\$16.19	\$114.88	\$46.01	\$12.37	\$4.96
21	1 - 4 MW	(pri)	\$78.39	\$150.33	\$8.44	\$16.19	\$114.88	\$46.01	\$12.37	\$4.96
22	> 4 MW	(sec)	\$8.33	\$17.71	\$0.90	\$1.91	\$0.00	\$0.00	\$0.00	\$0.00
23	> 4 MW	(pri)	\$5.88	\$12.49	\$0.63	\$1.35	\$0.00	\$0.00	\$0.00	\$0.00
24										
25	Irrigation - Schedule 41	(sec)	\$356.12	\$518.28	\$38.35	\$55.82	\$2,069.63	\$828.92	\$222.90	\$89.27
26	Irrigation - Schedule 33*	(sec)	\$421.19	\$610.34	\$45.36	\$65.73	\$2,613.97	\$1,046.94	\$281.52	\$112.76
26										
27										

The \$/kW are in terms of "Feeder" kW's.

\* Schedule 33 Cost of Service results are provided for informational purposes only.

PacificCorp  
Oregon Marginal Cost Study  
Calculation of Escalation Factors  
Poles and Conductor  
Three Phase Costs as Demand

Line	(A) Demand		(B) Conductor Cost		(C) Commitment		(D) Conductor Cost		(E) 2010 Demand		(F) Conductor Cost		(G) 2010 Commitment		(H) Conductor Cost	
	Poles Cost	Conductor Cost	Poles Cost	Conductor Cost	Poles Cost	Conductor Cost	Poles Cost	Conductor Cost	Poles Cost	Conductor Cost	Poles Cost	Conductor Cost	Poles Cost	Conductor Cost	Poles Cost	Conductor Cost
1	Res - Schedule 4															
2	\$157.30	\$250.56	\$681.01	\$266.31	\$155.21	\$253.21	\$671.95	\$269.13	(D) x 0.9867	(C) x 1.0106	(B) x 0.9867	(A) x 1.0106				
3																
4	GS - Schedule 23															
5	\$169.89	\$267.54	\$780.26	\$305.12	\$167.63	\$270.38	\$769.89	\$308.35	\$167.63	\$270.38	\$769.89	\$308.35				
6	\$169.89	\$267.54	\$780.26	\$305.12	\$167.63	\$270.38	\$769.89	\$308.35	\$167.63	\$270.38	\$769.89	\$308.35				
7	\$169.89	\$267.54	\$780.26	\$305.12	\$167.63	\$270.38	\$769.89	\$308.35	\$167.63	\$270.38	\$769.89	\$308.35				
8																
9	GS - Schedule 28															
10	\$109.36	\$187.91	\$333.96	\$130.59	\$107.90	\$189.90	\$329.52	\$131.98	\$107.90	\$189.90	\$329.52	\$131.98				
11	\$109.36	\$187.91	\$333.96	\$130.59	\$107.90	\$189.90	\$329.52	\$131.98	\$107.90	\$189.90	\$329.52	\$131.98				
12	\$109.36	\$187.91	\$333.96	\$130.59	\$107.90	\$189.90	\$329.52	\$131.98	\$107.90	\$189.90	\$329.52	\$131.98				
13	\$109.36	\$187.91	\$333.96	\$130.59	\$107.90	\$189.90	\$329.52	\$131.98	\$107.90	\$189.90	\$329.52	\$131.98				
14	\$109.36	\$187.91	\$333.96	\$130.59	\$107.90	\$189.90	\$329.52	\$131.98	\$107.90	\$189.90	\$329.52	\$131.98				
15	GS - Schedule 30															
16	\$116.29	\$197.56	\$393.15	\$153.74	\$114.75	\$199.66	\$387.93	\$155.37	\$114.75	\$199.66	\$387.93	\$155.37				
17	\$116.29	\$197.56	\$393.15	\$153.74	\$114.75	\$199.66	\$387.93	\$155.37	\$114.75	\$199.66	\$387.93	\$155.37				
18	\$116.29	\$197.56	\$393.15	\$153.74	\$114.75	\$199.66	\$387.93	\$155.37	\$114.75	\$199.66	\$387.93	\$155.37				
19																
20	LPS - Schedule 48T															
21	\$79.45	\$148.76	\$116.43	\$45.53	\$78.39	\$150.33	\$114.88	\$46.01	\$78.39	\$150.33	\$114.88	\$46.01				
22	\$79.45	\$148.76	\$116.43	\$45.53	\$78.39	\$150.33	\$114.88	\$46.01	\$78.39	\$150.33	\$114.88	\$46.01				
23	\$8.45	\$17.52	\$0.00	\$0.00	\$8.33	\$17.71	\$0.00	\$0.00	\$8.33	\$17.71	\$0.00	\$0.00				
24	\$5.96	\$12.36	\$0.00	\$0.00	\$5.88	\$12.49	\$0.00	\$0.00	\$5.88	\$12.49	\$0.00	\$0.00				
25																
26	Irrigation - Schedule 41															
27	\$360.92	\$512.84	\$2,097.53	\$820.23	\$356.12	\$518.28	\$2,069.63	\$828.92	\$356.12	\$518.28	\$2,069.63	\$828.92				
28																
29	Irrigation - Schedule 33*															
30	\$426.87	\$603.94	\$2,649.20	\$1,035.96	\$421.19	\$610.34	\$2,613.97	\$1,046.94	\$421.19	\$610.34	\$2,613.97	\$1,046.94				

Pacific Region		
	Index	Escalation Factor
Poles	2008 527.2	2010 520.2
Conductors	686.9	694.2
		$\frac{2008 - 2010}{0.9867}$
		1.0106

Footnotes:  
Escalation Factors: Cost Trends of Electric Utility Construction, Table A14  
Pole and conductor costs from Distribution Feeder Model.  
\* Schedule 33 Cost of Service results are provided for informational purposes only.

PacificCorp  
Oregon Marginal Cost Study  
Feeder Distribution Model  
Inputs & Calculations

Line	Class	(A)	(B)	(C)	(D)	(E)	(F)
		Annual MWH	Number of Customers	Average MWh per Customer (A) / (B)	Hours in Study Period	Average kW / customer per hour (C)/(D)x1000	Feeder Load Factor
1	Res - Schedule 4	(sec)	5,546,125	469,380	11.82	8,760	1.35
2	GS - Schedule 23 - 0-15 kW	(sec)	660,613	65,352	10.11	8,760	1.15
3	GS - Schedule 23 - 15+ kW	(sec)	487,926	9,474	51.50	8,760	5.88
4	GS - Schedule 23 - Primary	(pri)	1,278	34	37.60	8,760	4.29
5	GS - Schedule 28 - 0-50 kW	(sec)	441,213	4,459	98.95	8,760	11.30
6	GS - Schedule 28 - 51-100 kW	(sec)	686,792	3,500	196.23	8,760	22.40
7	GS - Schedule 28 - > 101kW	(sec)	942,085	2,020	466.38	8,760	53.24
8	GS - Schedule 28 - Primary	(pri)	18,798	50	375.96	8,760	42.92
9	GS - Schedule 30 - 0-300 kW	(sec)	210,232	240	875.96	8,760	100.00
10	GS - Schedule 30 - 301+ kW	(sec)	1,099,384	597	1,841.51	8,760	210.22
11	GS - Schedule 30 - Primary	(pri)	96,013	55	1,745.69	8,760	199.28
12	Irrigation - Sch 41	(sec)	130,845	6,142	21.30	8,760	2.43
13	Schedule 33 - Irrigation	(sec)	104,533	2,187	47.80	8,760	5.46
14	LPS - Schedule 48T - 1 - 4 MW	(sec)	649,403	123	5,279.70	8,760	602.71
15	LPS - Schedule 48T - 1 - 4 MW	(pri)	459,309	57	8,058.05	8,760	919.87
16	LPS - Schedule 48T - > 4 MW	(sec)	59,339	2	29,669.60	8,760	3,386.94
17	Total	(pri)	1,301,457	34	38,278.15	8,760	4,369.65
17	Total		12,895,345	563,706			87.24%

Customer Distribution on the Hypothetical Feeder Branch

Class	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Hypothetical Feeder Branch 1	Hypothetical Feeder Branch 2	3	4	5	6	7
17	Res - Schedule 4 (sec)	1.30%	1.30%	1.30%	4.01%	4.01%	84.08%
18	GS - Schedule 23 - 0-15 kW (sec)	1.62%	1.62%	3.96%	3.96%	3.98%	83.19%
19	GS - Schedule 23 - 15+ kW (sec)	1.62%	1.62%	3.98%	3.98%	3.98%	83.19%
20	GS - Schedule 23 - Primary (pri)	1.62%	1.62%	3.98%	3.98%	3.98%	83.19%
21	GS - Schedule 28 - 0-50 kW (sec)	0.51%	0.51%	2.54%	2.54%	2.54%	90.85%
22	GS - Schedule 28 - 51-100 kW (sec)	0.51%	0.51%	2.54%	2.54%	2.54%	90.85%
23	GS - Schedule 28 - > 101kW (sec)	0.51%	0.51%	2.54%	2.54%	2.54%	90.85%
24	GS - Schedule 28 - Primary (pri)	0.51%	0.51%	2.54%	2.54%	2.54%	90.85%
25	GS - Schedule 30 - 0-300 kW (sec)	0.75%	0.75%	2.30%	2.30%	2.30%	90.85%
26	GS - Schedule 30 - 301+ kW (sec)	0.75%	0.75%	2.30%	2.30%	2.30%	90.85%
27	GS - Schedule 30 - Primary (pri)	0.75%	0.75%	2.30%	2.30%	2.30%	90.85%
28	Irrigation - Sch 41	3.81%	3.81%	13.14%	13.14%	13.14%	49.13%
29	Schedule 33 - Irrigation	5.97%	5.97%	11.40%	11.40%	11.40%	47.88%
30	LPS - Schedule 48T - 1 - 4 MW (sec)	-	-	1.68%	1.68%	1.68%	94.95%
31	LPS - Schedule 48T - 1 - 4 MW (pri)	-	-	1.68%	1.68%	1.68%	94.95%
32	LPS - Schedule 48T - > 4 MW (sec)	-	-	1.68%	1.68%	1.68%	94.95%
32	LPS - Schedule 48T - > 4 MW (pri)	-	-	1.68%	1.68%	1.68%	94.95%
33	System property records & engineering information						
34	Number of pole miles in Oregon	14,146	ok	Poles per mile			26.27
35	Number of trench miles in Oregon	4,831	ok	Customers per mile			29.70
36	Number of feeders in Oregon	604		MWH per customer			22.88
37	Number of poles in Oregon	371,574	ok	MWH per feeder			21,350

\* Schedule 33 Cost of Service results are provided for informational purposes only.

**PacifiCorp  
Oregon Feeder Model Study  
Customer Distribution on the Hypothetical Feeder Branch**

Class	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	Hypothetical Feeder Branch							Branch
	1	2	3	4	5	6	7	Total
1 Residential	1.30%	1.30%	1.30%	4.01%	4.01%	4.01%	84.08%	100.00%
2 GS 0-15 kW (sec) (23)	1.62%	1.62%	1.62%	3.98%	3.98%	3.98%	83.19%	100.00%
3 GS >15 kW (sec) (23)	1.62%	1.62%	1.62%	3.98%	3.98%	3.98%	83.19%	100.00%
4 GS (pri) (23)	1.62%	1.62%	1.62%	3.98%	3.98%	3.98%	83.19%	100.00%
5 GS < 50 kW (sec) (28)	0.51%	0.51%	0.51%	2.54%	2.54%	2.54%	90.85%	100.00%
6 GS 51-100 kW (sec) (28)	0.51%	0.51%	0.51%	2.54%	2.54%	2.54%	90.85%	100.00%
7 GS > 100 kW (sec) (28)	0.51%	0.51%	0.51%	2.54%	2.54%	2.54%	90.85%	100.00%
8 GS (pri) (28)	0.51%	0.51%	0.51%	2.54%	2.54%	2.54%	90.85%	100.00%
9 GS 0-300 kW (sec) (30)	0.75%	0.75%	0.75%	2.30%	2.30%	2.30%	90.85%	100.00%
10 GS >300 kW (sec) (30)	0.75%	0.75%	0.75%	2.30%	2.30%	2.30%	90.85%	100.00%
11 GS (pri) (30)	0.75%	0.75%	0.75%	2.30%	2.30%	2.30%	90.85%	100.00%
12 Irrigation	3.81%	3.81%	3.81%	13.14%	13.14%	13.14%	49.13%	100.00%
13 USBR / UKRB	5.97%	5.97%	5.97%	11.40%	11.40%	11.40%	47.88%	100.00%
14 Large GS 1 - 4 MW (sec)	-	-	-	1.68%	1.68%	1.68%	94.95%	100.00%
15 Large GS 1 - 4 MW (pri)	-	-	-	1.68%	1.68%	1.68%	94.95%	100.00%
16 Large GS + 4 MW (sec)	-	-	-	-	-	-	-	-
17 Large GS + 4 MW (pri)	-	-	-	-	-	-	-	-



**PacifiCorp  
Oregon Feeder Model Study  
Average Customers by Hypothetical Feeder Branch**

Class	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	1	2	3	4	5	6	7	Total
Hypothetical Feeder Branch								

Average Customers									
1	Residential	10.07	10.07	10.07	31.16	31.16	31.16	653.44	777.12
2	GS 0-15 kW (sec) (23)	1.75	1.75	1.75	4.31	4.31	4.31	90.01	108.20
3	GS >15 kW (sec) (23)	0.25	0.25	0.25	0.62	0.62	0.62	13.05	15.69
4	GS (pri) (23)	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.06
5	GS < 50 kW (sec) (28)	0.04	0.04	0.04	0.19	0.19	0.19	6.71	7.38
6	GS 51-100 kW (sec) (28)	0.03	0.03	0.03	0.15	0.15	0.15	5.26	5.79
7	GS > 100 kW (sec) (28)	0.02	0.02	0.02	0.09	0.09	0.09	3.04	3.34
8	GS (pri) (28)	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08
9	GS 0-300 kW (sec) (30)	0.00	0.00	0.00	0.01	0.01	0.01	0.36	0.40
10	GS >300 kW (sec) (30)	0.01	0.01	0.01	0.02	0.02	0.02	0.90	0.99
11	GS (pri) (30)	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.09
12	Irrigation	0.39	0.39	0.39	1.34	1.34	1.34	5.00	10.17
13	USBR / UKRB	0.20	0.20	0.20	0.39	0.39	0.39	1.64	3.43
14	Large GS 1 - 4 MW (sec)	-	-	-	0.00	0.00	0.00	0.19	0.20
15	Large GS 1 - 4 MW (pri)	-	-	-	0.00	0.00	0.00	0.09	0.09
16	Large GS + 4 MW (sec)	-	-	-	-	-	-	-	-
17	Large GS + 4 MW (pri)	-	-	-	-	-	-	-	-
18	Total	12.77	12.77	12.77	38.28	38.28	38.28	779.89	933.03

Source - 'Feeder Model Inputs and Assumptions' (Inputs) Tab 8.4  
 Source - 'Customer Distribution on the Hypothetical Feeder Branch' (Cust\_Dist) Tab 8.5  
 Customers multiplied by Customer Distribution on the Hypothetical Feeder Branch divided by feeders in the state.  
 For Example 10.07 is 469,380 Residential Customers X 1.296% customer on Branch 1 divided by 604 feeders.

Percent of Customers									
1	Residential	78.88%	78.88%	78.88%	81.39%	81.39%	81.39%	83.79%	83.29%
2	GS 0-15 kW (sec) (23)	13.73%	13.73%	13.73%	11.26%	11.26%	11.26%	11.54%	11.60%
3	GS >15 kW (sec) (23)	1.99%	1.99%	1.99%	1.63%	1.63%	1.63%	1.67%	1.68%
4	GS (pri) (23)	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%
5	GS < 50 kW (sec) (28)	0.29%	0.29%	0.29%	0.49%	0.49%	0.49%	0.86%	0.79%
6	GS 51-100 kW (sec) (28)	0.23%	0.23%	0.23%	0.39%	0.39%	0.39%	0.67%	0.62%
7	GS > 100 kW (sec) (28)	0.13%	0.13%	0.13%	0.22%	0.22%	0.22%	0.39%	0.36%
8	GS (pri) (28)	0.00%	0.00%	0.00%	0.01%	0.01%	0.01%	0.01%	0.01%
9	GS 0-300 kW (sec) (30)	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.05%	0.04%
10	GS >300 kW (sec) (30)	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.12%	0.11%
11	GS (pri) (30)	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%
12	Irrigation	3.04%	3.04%	3.04%	3.49%	3.49%	3.49%	6.64%	1.09%
13	USBR / UKRB	1.60%	1.60%	1.60%	1.02%	1.02%	1.02%	0.21%	0.37%
14	Large GS 1 - 4 MW (sec)	-	-	-	0.01%	0.01%	0.01%	0.02%	0.02%
15	Large GS 1 - 4 MW (pri)	-	-	-	0.00%	0.00%	0.00%	0.01%	0.01%
16	Large GS + 4 MW (sec)	-	-	-	-	-	-	-	-
17	Large GS + 4 MW (pri)	-	-	-	-	-	-	-	-
18	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Sum of Branch Loads									
19	1,2,3,6	12.8	12.8	12.8	38.3	38.3	38.3	779.9	76.6
20	1,2,3,4,5,6,7	12.8	12.8	12.8	38.3	38.3	38.3	779.9	933.0
21									
22	1,2,3,6	16.7%	16.7%	16.7%	4.1%	4.1%	4.1%	50.0%	100.0%
23	1,2,3,4,5,6,7	1.4%	1.4%	1.4%	4.1%	4.1%	4.1%	83.6%	100.0%

**PacifiCorp**  
**Oregon Feeder Model Study**  
**Feeder kW Load by Branch**

Class	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
	1	2	3	4	5	6	7	Total
Hypothetical Feeder Branch								

**Feeder kW Loads**

1 Residential	23.7	23.7	23.7	73.4	73.4	73.4	1,540.0	1,831.5
2 GS 0-15 kW (sec) (23)	2.3	2.3	2.3	5.7	5.7	5.7	119.0	143.0
3 GS >15 kW (sec) (23)	2.0	2.0	2.0	5.0	5.0	5.0	104.6	125.8
4 GS (pri) (23)	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3
5 GS < 50 kW (sec) (28)	0.6	0.6	0.6	2.9	2.9	2.9	102.7	113.1
6 GS 51-100 kW (sec) (28)	0.9	0.9	0.9	4.7	4.7	4.7	168.3	185.2
7 GS > 100 kW (sec) (28)	1.2	1.2	1.2	6.2	6.2	6.2	219.9	242.1
8 GS (pri) (28)	0.0	0.0	0.0	0.1	0.1	0.1	4.4	4.9
9 GS 0-300 kW (sec) (30)	0.4	0.4	0.4	1.2	1.2	1.2	47.8	52.6
10 GS >300 kW (sec) (30)	2.1	2.1	2.1	6.3	6.3	6.3	249.0	274.1
11 GS (pri) (30)	0.2	0.2	0.2	0.6	0.6	0.6	21.8	23.9
12 Irrigation	1.0	1.0	1.0	3.4	3.4	3.4	12.8	26.0
13 USBR / UKRB	1.2	1.2	1.2	2.4	2.4	2.4	9.9	20.8
14 Large GS 1 - 4 MW (sec)	-	-	-	2.7	2.7	2.7	153.5	161.6
15 Large GS 1 - 4 MW (pri)	-	-	-	1.8	1.8	1.8	101.6	107.0
16 Large GS + 4 MW (sec)	-	-	-	-	-	-	-	-
17 Large GS + 4 MW (pri)	-	-	-	-	-	-	-	-
18 Total	35.7	35.7	35.7	116.4	116.4	116.4	2,855.7	3,312.0

Source - 'Feeder Model Inputs and Assumptions' (Inputs) Tab 8.4

Source - 'Average Customers by Hypothetical Feeder Branch' (Cust) Tab 8.6

Customers multiplied by feeder kW per customer.

For Example 23.7 is 10.07 Residential Customers multiplied by 2.36 average feeder kW per Customer.

**Percent of Branch Load**

1 Residential	66.43%	66.43%	66.43%	63.09%	63.09%	63.09%	53.93%	55.30%
2 GS 0-15 kW (sec) (23)	6.49%	6.49%	6.49%	4.89%	4.89%	4.89%	4.17%	4.32%
3 GS >15 kW (sec) (23)	5.71%	5.71%	5.71%	4.30%	4.30%	4.30%	3.66%	3.80%
4 GS (pri) (23)	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%
5 GS < 50 kW (sec) (28)	1.60%	1.60%	1.60%	2.47%	2.47%	2.47%	3.60%	3.41%
6 GS 51-100 kW (sec) (28)	2.63%	2.63%	2.63%	4.05%	4.05%	4.05%	5.89%	5.59%
7 GS > 100 kW (sec) (28)	3.44%	3.44%	3.44%	5.29%	5.29%	5.29%	7.70%	7.31%
8 GS (pri) (28)	0.07%	0.07%	0.07%	0.11%	0.11%	0.11%	0.16%	0.15%
9 GS 0-300 kW (sec) (30)	1.11%	1.11%	1.11%	1.04%	1.04%	1.04%	1.67%	1.59%
10 GS >300 kW (sec) (30)	5.77%	5.77%	5.77%	5.42%	5.42%	5.42%	8.72%	8.28%
11 GS (pri) (30)	0.50%	0.50%	0.50%	0.47%	0.47%	0.47%	0.76%	0.72%
12 Irrigation	2.78%	2.78%	2.78%	2.93%	2.93%	2.93%	0.45%	0.78%
13 USBR / UKRB	3.47%	3.47%	3.47%	2.03%	2.03%	2.03%	0.35%	0.63%
14 Large GS 1 - 4 MW (sec)	-	-	-	2.34%	2.34%	2.34%	5.37%	4.88%
15 Large GS 1 - 4 MW (pri)	-	-	-	1.55%	1.55%	1.55%	3.56%	3.23%
16 Large GS + 4 MW (sec)	-	-	-	-	-	-	-	-
17 Large GS + 4 MW (pri)	-	-	-	-	-	-	-	-
18 Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Sum of Branch Loads**

1,2,3,6	35.7	35.7	35.7	116.4	116.4	116.4	2,855.7	3,312.0
1,2,3,4,5,6,7	35.7	35.7	35.7	116.4	116.4	116.4	2,855.7	3,312.0
1,2,3,6	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	52.1%	100.0%
1,2,3,4,5,6,7	1.1%	1.1%	1.1%	3.5%	3.5%	3.5%	86.2%	100.0%

PacifiCorp  
Oregon Feeder Model Study  
System-wide Pole and Conductor Costs

**Adjusted Oregon Line Costs per Mile**

Wire Sizes	Account 364 Pole Cost per Mile		Adjusted Pole Cost	Account 365 Conductor Cost per Mile	Total Line Construction Cost
	Pole Cost per Mile	Adjustment Factor			
1 Phase -1/0 ACSR	\$ 29,819	0.990	\$ 29,521	\$ 11,544	\$ 41,363
3 Phase - 1/0 ACSR 1/0 ACSR	\$ 35,873	0.990	\$ 35,514	\$ 23,754	\$ 59,627
3 Phase - 447 AAC & 410 AAC	\$ 41,961	0.990	\$ 41,541	\$ 39,106	\$ 81,067
3 Phase -795 AAC & 477 AAC	\$ 44,996	0.990	\$ 44,546	\$ 92,427	\$ 137,423

State	State Specific Account 364 Pole Statistics		Adjustment Factor
	Poles	Pole Miles	

California	55,376	2,295	24.13	0.909
Idaho	101,768	4,392	23.17	0.873
Oregon	371,574	14,146	26.27	0.990
Utah	363,003	11,505	31.55	1.189
Washington	98,596	3,545	27.81	1.048
Wyoming	154,013	7,246	21.25	0.801
Total	1,144,330	43,129	26.53	1.000

Costs for Branches 1,2,3,4,5			
<b>Wire Size</b>	1 Phase -1/0 ACSR	3 Phase - 1/0 ACSR	1/0 Total
Poles	\$ 46,375	\$ 103,611	\$ 149,986
Conductors	\$ 18,135	\$ 69,301	\$ 87,436
Total	\$ 64,510	\$ 172,912	\$ 237,422
<b>Wire Size</b>	Cost for Branch 6		
Poles	3 Phase - 447 AAC & 410 AAC	3 Phase -795 AAC & 477 AAC	
Conductors	\$ 186,454	\$ 199,940	
Total	\$ 175,523	\$ 414,847	
	\$ 361,976	\$ 614,787	

Miles per Branch	4.49
Single Phase Miles Per Branch	1.57
Three Phase Miles Per Branch	2.92

Source: Input Tab

**Commitment and Demand Costs Per Branch**

Wire Sizes	Poles		Demand	Total Cost	Conductor	
	Total Cost	Commitment			Commitment	Demand
<b>Branches 1,2,3,4,5</b>						
1 Phase -1/0 ACSR	\$ 46,375	\$ 46,375	\$ -	\$ 18,135	\$ 18,135	N/A
3 Phase - 1/0 ACSR 1/0 ACSR	\$ 103,611	\$ 86,125	\$ 17,486	\$ 69,301	\$ 33,679	\$ 35,622
Total Branches 1,2,3,4,5	\$ 149,986	\$ 132,501	\$ 17,486	\$ 87,436	\$ 51,814	\$ 35,622
<b>Branch 6</b>						
3 Phase - 447 AAC & 410 AAC	\$ 186,454	N/A	\$ 186,454	\$ 175,523	N/A	\$ 175,523
<b>Branch 7</b>						
3 Phase -795 AAC & 477 AAC	\$ 199,940	N/A	\$ 199,940	\$ 414,847	N/A	\$ 414,847
Total All Branches	\$ 1,136,324	\$ 662,503	\$ 473,821	\$ 1,027,549	\$ 259,069	\$ 768,480

**PacifiCorp  
Oregon Feeder Model Study  
Calculation of Hypothetical Feeder Model Branch Cost**

Conductors Type	(A)		(B)		(C)		(D)		(E)		(F)	
	Total Cost		Total Cost		Commitment Cost		Commitment Cost		Demand Cost		Demand Cost	
	Poles	Conductor	Poles	Conductor	Poles	Conductor	Poles	Conductor	Poles	Conductor	Poles	Conductor
<b>Branch 1</b>												
1 Phase -1/0 ACSR	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	NA	NA	NA	NA
3 Phase - 1/0 ACSR 110 A	\$ 103,611	\$ 69,301	\$ 103,611	\$ 69,301	\$ 86,125	\$ 33,679	\$ 86,125	\$ 33,679	\$ 17,486	\$ 35,622	\$ 17,486	\$ 35,622
Total segment	\$ 149,986	\$ 87,436	\$ 149,986	\$ 87,436	\$ 132,501	\$ 51,814	\$ 132,501	\$ 51,814	\$ 17,486	\$ 35,622	\$ 17,486	\$ 35,622
<b>Branch 2</b>												
1 Phase -1/0 ACSR	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	NA	NA	NA	NA
3 Phase - 1/0 ACSR 110 A	\$ 103,611	\$ 69,301	\$ 103,611	\$ 69,301	\$ 86,125	\$ 33,679	\$ 86,125	\$ 33,679	\$ 17,486	\$ 35,622	\$ 17,486	\$ 35,622
Total Segments	\$ 149,986	\$ 87,436	\$ 149,986	\$ 87,436	\$ 132,501	\$ 51,814	\$ 132,501	\$ 51,814	\$ 17,486	\$ 35,622	\$ 17,486	\$ 35,622
<b>Branch 3</b>												
1 Phase -1/0 ACSR	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	NA	NA	NA	NA
3 Phase - 1/0 ACSR 110 A	\$ 103,611	\$ 69,301	\$ 103,611	\$ 69,301	\$ 86,125	\$ 33,679	\$ 86,125	\$ 33,679	\$ 17,486	\$ 35,622	\$ 17,486	\$ 35,622
Total Segments	\$ 149,986	\$ 87,436	\$ 149,986	\$ 87,436	\$ 132,501	\$ 51,814	\$ 132,501	\$ 51,814	\$ 17,486	\$ 35,622	\$ 17,486	\$ 35,622
<b>Branch 4</b>												
1 Phase -1/0 ACSR	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	NA	NA	NA	NA
3 Phase - 1/0 ACSR 110 A	\$ 103,611	\$ 69,301	\$ 103,611	\$ 69,301	\$ 86,125	\$ 33,679	\$ 86,125	\$ 33,679	\$ 17,486	\$ 35,622	\$ 17,486	\$ 35,622
Total Segments	\$ 149,986	\$ 87,436	\$ 149,986	\$ 87,436	\$ 132,501	\$ 51,814	\$ 132,501	\$ 51,814	\$ 17,486	\$ 35,622	\$ 17,486	\$ 35,622
<b>Branch 5</b>												
1 Phase -1/0 ACSR	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	NA	NA	NA	NA
3 Phase - 1/0 ACSR 110 A	\$ 103,611	\$ 69,301	\$ 103,611	\$ 69,301	\$ 86,125	\$ 33,679	\$ 86,125	\$ 33,679	\$ 17,486	\$ 35,622	\$ 17,486	\$ 35,622
Total Segments	\$ 149,986	\$ 87,436	\$ 149,986	\$ 87,436	\$ 132,501	\$ 51,814	\$ 132,501	\$ 51,814	\$ 17,486	\$ 35,622	\$ 17,486	\$ 35,622
<b>Branch 6</b>												
1 Phase -1/0 ACSR	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	\$ 46,375	\$ 18,135	NA	NA	NA	NA
3 Phase - 1/0 ACSR 110 A	\$ 103,611	\$ 69,301	\$ 103,611	\$ 69,301	\$ 86,125	\$ 33,679	\$ 86,125	\$ 33,679	\$ 17,486	\$ 35,622	\$ 17,486	\$ 35,622
Total Segments	\$ 149,986	\$ 87,436	\$ 149,986	\$ 87,436	\$ 132,501	\$ 51,814	\$ 132,501	\$ 51,814	\$ 17,486	\$ 35,622	\$ 17,486	\$ 35,622
<b>Branch 6</b>												
3 Phase - 447 AAC & 410 A	\$ 186,454	\$ 175,523	\$ 186,454	\$ 175,523	NA	NA	NA	NA	\$ 186,454	\$ 175,523	\$ 186,454	\$ 175,523
Total Segments	\$ 186,454	\$ 175,523	\$ 186,454	\$ 175,523	\$ -	\$ -	\$ -	\$ -	\$ 186,454	\$ 175,523	\$ 186,454	\$ 175,523
<b>Branch 7</b>												
3 Phase -795 AAC & 477 A	\$ 199,940	\$ 414,847	\$ 199,940	\$ 414,847	NA	NA	NA	NA	\$ 199,940	\$ 414,847	\$ 199,940	\$ 414,847
Total segment	\$ 199,940	\$ 414,847	\$ 199,940	\$ 414,847	\$ -	\$ -	\$ -	\$ -	\$ 199,940	\$ 414,847	\$ 199,940	\$ 414,847

Source - 'System-wide Pole and Conductor Costs' (Line\_Cost) Tab 8.8

**PacifiCorp  
Oregon Feeder Model Study  
Poles Demand Calculations  
Branch 6 & 7 Cost Assignment**

Line	Branch	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
1	% Demand	15.98%	2	15.98%	NA	NA	52.07%	7	NA	100.00%
2	Branch 6 Cost	\$ 29,792	\$ 29,792	\$ 29,792	NA	NA	\$ 97,078	NA	\$ 186,454	\$ / KW
3	% Demand	1.08%	1.08%	1.08%	3.51%	3.51%	3.51%	86.22%	100.00%	
4	Branch 7 Cost	\$ 2,156	\$ 2,156	\$ 2,156	\$ 7,027	\$ 7,027	\$ 7,027	\$ 172,391	\$ 199,940	Average
5	Branch Demand Cost	\$ 17,486	\$ 17,486	\$ 17,486	\$ 17,486	\$ 17,486	NA	NA		\$ 143.06
6	Total	\$ 49,434	\$ 49,434	\$ 49,434	\$ 24,512	\$ 24,512	\$ 104,104	\$ 172,391	\$ 473,821	
7										
8										
9	Class Cost per Branch(4)	1	2	3	4	5	6	7	Total	Total
10	Residential	\$ 32,840	\$ 32,840	\$ 32,840	\$ 15,465	\$ 15,465	\$ 65,680	\$ 92,967	\$ 288,098	\$ 157.30
11	GS 0-15 kW (sec) (23)	\$ 3,207	\$ 3,207	\$ 3,207	\$ 1,199	\$ 1,199	\$ 5,093	\$ 7,181	\$ 24,293	\$ 169.89
12	GS > 15 kW (sec) (23)	\$ 2,821	\$ 2,821	\$ 2,821	\$ 1,055	\$ 1,055	\$ 4,481	\$ 6,317	\$ 21,370	\$ 169.89
13	GS (pri) (23)	\$ 7	\$ 7	\$ 7	\$ 3	\$ 3	\$ 12	\$ 16	\$ 55	\$ 169.89
14	GS < 50 kW (sec) (28)	\$ 793	\$ 793	\$ 793	\$ 606	\$ 606	\$ 2,574	\$ 6,202	\$ 12,368	\$ 109.36
15	GS 51-100 kW (sec) (28)	\$ 1,299	\$ 1,299	\$ 1,299	\$ 993	\$ 993	\$ 4,216	\$ 10,159	\$ 20,257	\$ 109.36
16	GS > 100 kW (sec) (28)	\$ 1,698	\$ 1,698	\$ 1,698	\$ 1,297	\$ 1,297	\$ 5,510	\$ 13,278	\$ 26,477	\$ 109.36
17	GS (pri) (28)	\$ 34	\$ 34	\$ 34	\$ 26	\$ 26	\$ 111	\$ 268	\$ 535	\$ 109.36
18	GS 0-300 kW (sec) (30)	\$ 547	\$ 547	\$ 547	\$ 255	\$ 255	\$ 1,083	\$ 2,887	\$ 6,121	\$ 116.29
19	GS > 300 kW (sec) (30)	\$ 2,850	\$ 2,850	\$ 2,850	\$ 1,328	\$ 1,328	\$ 5,641	\$ 15,035	\$ 31,881	\$ 116.29
20	GS (pri) (30)	\$ 249	\$ 249	\$ 249	\$ 116	\$ 116	\$ 493	\$ 1,313	\$ 2,785	\$ 116.29
21	Irrigation	\$ 1,372	\$ 1,372	\$ 1,372	\$ 719	\$ 719	\$ 3,054	\$ 771	\$ 9,379	\$ 360.92
22	USBR / UKRB	\$ 1,716	\$ 1,716	\$ 1,716	\$ 498	\$ 498	\$ 2,116	\$ 600	\$ 8,862	\$ 426.87
23	Large GS 1 - 4 MW (sec)	\$ -	\$ -	\$ -	\$ 572	\$ 572	\$ 2,431	\$ 9,264	\$ 12,840	\$ 79.45
24	Large GS 1 - 4 MW (pri)	\$ -	\$ -	\$ -	\$ 379	\$ 379	\$ 1,610	\$ 6,133	\$ 8,501	\$ 79.45
25	Large GS + 4 MW (sec)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	Large GS + 4 MW (pri)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	Check Total	\$ 49,434	\$ 49,434	\$ 49,434	\$ 24,512	\$ 24,512	\$ 104,104	\$ 172,391	\$ 473,821	

Sources: Line 1 & 3 - 'Feeder kW Load by Branch' (kW) Tab 8.7  
 Line 2 - 'Calculation of Hypothetical Feeder Model Branch Cost' (Br\_Cost) Tab 8.9 For \$186,454  
 Line 4 - 'Calculation of Hypothetical Feeder Model Branch Cost' (Br\_Cost) Tab 8.9 For \$199,940  
 Line 5 - 'Calculation of Hypothetical Feeder Model Branch Cost' (Br\_Cost) Tab 8.9  
 Line 7 to 18 - Line 6 X Percent of Branch Load 'Feeder kW Load by Branch' (kW) Tab 8.7

**PacifiCorp**  
**Oregon Feeder Model Study**  
**Conductor Demand Calculations**  
**Branch 6 & 7 Cost Assignment**

Conductors		(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
		1	2	3	4	5	6	7		
Line	Branch	1	2	3	4	5	6	7		
1	% Demand	15.98%	15.98%	15.98%	NA	NA	52.07%	NA	100.00%	
2	Branch 6 Cost	\$ 28,045	\$ 28,045	\$ 28,045	NA	NA	\$ 91,386	NA	\$ 175,523	\$ / kW
3	% Demand	1.08%	1.08%	1.08%	3.51%	3.51%	3.51%	86.22%	100.00%	
4	Branch 7 Cost	\$ 4,474	\$ 4,474	\$ 4,474	\$ 14,579	\$ 14,579	\$ 14,579	\$ 357,687	\$ 414,847	average
5	Branch Demand Cost	\$ 35,622	\$ 35,622	\$ 35,622	\$ 35,622	\$ 35,622	NA	NA	\$ 768,480	\$ 232.03
6	Total	\$ 68,142	\$ 68,142	\$ 68,142	\$ 50,201	\$ 50,201	\$ 105,966	\$ 357,687	\$ 768,480	
7										
8										
9	Class Cost per Branch(4)	1	2	3	4	5	6	7	Total	Total
10	Residential	\$ 45,268	\$ 45,268	\$ 45,268	\$ 31,672	\$ 31,672	\$ 66,855	\$ 192,894	\$ 458,898	\$ 250.56
11	GS 0-15 kW (sec) (23)	\$ 4,420	\$ 4,420	\$ 4,420	\$ 2,456	\$ 2,456	\$ 5,184	\$ 14,900	\$ 38,258	\$ 267.54
12	GS >15 kW (sec) (23)	\$ 3,888	\$ 3,888	\$ 3,888	\$ 2,161	\$ 2,161	\$ 4,561	\$ 13,107	\$ 33,654	\$ 267.54
13	GS (pri) (23)	\$ 10	\$ 10	\$ 10	\$ 6	\$ 6	\$ 12	\$ 34	\$ 86	\$ 267.54
14	GS < 50 kW (sec) (28)	\$ 1,093	\$ 1,093	\$ 1,093	\$ 1,241	\$ 1,241	\$ 2,620	\$ 12,869	\$ 21,252	\$ 187.91
15	GS 51-100 kW (sec) (28)	\$ 1,791	\$ 1,791	\$ 1,791	\$ 2,033	\$ 2,033	\$ 4,291	\$ 21,078	\$ 34,807	\$ 187.91
16	GS > 100 kW (sec) (28)	\$ 2,341	\$ 2,341	\$ 2,341	\$ 2,657	\$ 2,657	\$ 5,609	\$ 27,549	\$ 45,494	\$ 187.91
17	GS (pri) (28)	\$ 47	\$ 47	\$ 47	\$ 54	\$ 54	\$ 113	\$ 556	\$ 919	\$ 187.91
18	GS 0-300 kW (sec) (30)	\$ 754	\$ 754	\$ 754	\$ 522	\$ 522	\$ 1,102	\$ 5,989	\$ 10,399	\$ 197.56
19	GS >300 kW (sec) (30)	\$ 3,928	\$ 3,928	\$ 3,928	\$ 2,720	\$ 2,720	\$ 5,742	\$ 31,195	\$ 54,162	\$ 197.56
20	GS (pri) (30)	\$ 343	\$ 343	\$ 343	\$ 238	\$ 238	\$ 502	\$ 2,725	\$ 4,731	\$ 197.56
21	Irrigation	\$ 1,891	\$ 1,891	\$ 1,891	\$ 1,473	\$ 1,473	\$ 3,109	\$ 1,599	\$ 13,326	\$ 512.84
22	USBR / UKRB	\$ 2,366	\$ 2,366	\$ 2,366	\$ 1,021	\$ 1,021	\$ 2,154	\$ 1,245	\$ 12,538	\$ 603.94
23	Large GS 1 - 4 MW (sec)	\$ -	\$ -	\$ -	\$ 1,172	\$ 1,172	\$ 2,475	\$ 19,221	\$ 24,040	\$ 148.76
24	Large GS 1 - 4 MW (pri)	\$ -	\$ -	\$ -	\$ 776	\$ 776	\$ 1,638	\$ 12,726	\$ 15,916	\$ 148.76
25	Large GS + 4 MW (sec)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	Large GS + 4 MW (pri)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	Check Total	\$ 68,142	\$ 68,142	\$ 68,142	\$ 50,201	\$ 50,201	\$ 105,966	\$ 357,687	\$ 768,480	

Sources: Line 1 & 3 - 'Feeder kW Load by Branch' (kW) Tab 8.7  
 Line 2 - 'Calculation of Hypothetical Feeder Model Branch Cost' (Br\_Cost) Tab 8.9 For \$175,523  
 Line 1 X \$175,523  
 Line 4 - 'Calculation of Hypothetical Feeder Model Branch Cost' (Br\_Cost) Tab 8.9 For \$414,847  
 Line 3 X \$414,847  
 Line 5 - 'Calculation of Hypothetical Feeder Model Branch Cost' (Br\_Cost) Tab 8.9  
 Line 7 to 18 - Line 6 X Percent of Branch Load 'Feeder kW Load by Branch' (kW) Tab 8.7

**PacifiCorp**  
**Oregon Feeder Model Study**  
**Poles Commitment Calculations**  
**Branch 1, 2, 3, 4 & 5 Cost Assignment**

Line	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
1	Branch	1	2	3	4	5	6	7	
1	% customer	16.67%	16.67%	16.67%	NA	NA	49.99%	NA	100.00%
2	Branch 6 Cost	\$ -	\$ -	\$ -	NA	NA	\$ -	NA	\$ -
3	% customer	1.37%	1.37%	1.37%	4.10%	4.10%	4.10%	83.59%	100.00%
4	Branch 7 Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5	Branch Commitment Cost	\$ 132,501	\$ 132,501	\$ 132,501	\$ 132,501	\$ 132,501	NA	NA	average
6	Total	\$ 132,501	\$ 132,501	\$ 132,501	\$ 132,501	\$ 132,501	\$ -	\$ -	\$ 710.05
7									
8									
9									
10	Class Cost per Branch(2)	1	2	3	4	5	6	7	Total
11	Residential	\$ 104,514	\$ 104,514	\$ 104,514	\$ 107,843	\$ 107,843	\$ -	\$ -	Commitment
12	GS 0-15 kW (sec) (23)	\$ 18,199	\$ 18,199	\$ 18,199	\$ 14,914	\$ 14,914	\$ -	\$ -	Cost
13	GS >15 kW (sec) (23)	\$ 2,638	\$ 2,638	\$ 2,638	\$ 2,162	\$ 2,162	\$ -	\$ -	\$ 529,228
14	GS (pri) (23)	\$ 10	\$ 10	\$ 10	\$ 8	\$ 8	\$ -	\$ -	\$ 84,424
15	GS < 50 kW (sec) (28)	\$ 388	\$ 388	\$ 388	\$ 650	\$ 650	\$ -	\$ -	\$ 12,239
16	GS 51-100 kW (sec) (28)	\$ 305	\$ 305	\$ 305	\$ 510	\$ 510	\$ -	\$ -	\$ 44
17	GS > 100 kW (sec) (28)	\$ 176	\$ 176	\$ 176	\$ 294	\$ 294	\$ -	\$ -	\$ 780.26
18	GS (pri) (28)	\$ 4	\$ 4	\$ 4	\$ 7	\$ 7	\$ -	\$ -	\$ 780.26
19	GS 0-300 kW (sec) (30)	\$ 31	\$ 31	\$ 31	\$ 32	\$ 32	\$ -	\$ -	\$ 2,465
20	GS >300 kW (sec) (30)	\$ 77	\$ 77	\$ 77	\$ 79	\$ 79	\$ -	\$ -	\$ 1,935
21	GS (pri) (30)	\$ 7	\$ 7	\$ 7	\$ 7	\$ 7	\$ -	\$ -	\$ 333.96
22	Irrigation	\$ 4,027	\$ 4,027	\$ 4,027	\$ 4,625	\$ 4,625	\$ -	\$ -	\$ 28
23	USBR / UKRB	\$ 2,125	\$ 2,125	\$ 2,125	\$ 1,352	\$ 1,352	\$ -	\$ -	\$ 156
24	Large GS 1 - 4 MW (sec)	\$ -	\$ -	\$ -	\$ 12	\$ 12	\$ -	\$ -	\$ 388
25	Large GS 1 - 4 MW (pri)	\$ -	\$ -	\$ -	\$ 5	\$ 5	\$ -	\$ -	\$ 36
26	Large GS + 4 MW (sec)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 36
27	Large GS + 4 MW (pri)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,329
28	Check Total	\$ 132,501	\$ 132,501	\$ 132,501	\$ 132,501	\$ 132,501	\$ -	\$ -	\$ 9,079

Sources: Line 1 & 3 - 'Average Customers by Hypothetical Feeder Branch' (Cust) Tab 8.6  
 Line 2 - 'Calculation of Hypothetical Feeder Model Branch Cost' (Br\_Cost) Tab 8.9 For \$ 0  
           Line 1 X \$ 0  
 Line 4 - 'Calculation of Hypothetical Feeder Model Branch Cost' (Br\_Cost) Tab 8.9 For \$ 0  
           Line 3 X \$ 0  
 Line 5 - 'Calculation of Hypothetical Feeder Model Branch Cost' (Br\_Cost) Tab 8.9  
 Line 7 to 18 - Line 6 X Percent of Customers 'Average Customers by Hypothetical Feeder Branch' (Cust) Tab 8.6

PacifiCorp  
Oregon Feeder Model Study  
Conductor Commitment Calculations  
Branch 1, 2, 3, 4 & 5 Cost Assignment

Conductors		(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
Line	Branch	1	2	3	4	5	6	7		
1	% customer	16.67%	16.67%	16.67%	NA	NA	49.99%	NA	100.00%	
2	Branch 6 Cost	\$ -	\$ -	\$ -	NA	NA	\$ -	NA	\$ -	
3	% customer	1.37%	1.37%	1.37%	4.10%	4.10%	4.10%	83.59%	100.00%	\$ Per Customer
4	Branch 7 Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	average
5	Branch Commitment Cost	\$ 51,814	\$ 51,814	\$ 51,814	\$ 51,814	\$ 51,814	NA	NA	\$ 259,069	\$ 277.66
6	Total	\$ 51,814	\$ 51,814	\$ 51,814	\$ 51,814	\$ 51,814	\$ -	\$ -	\$ 259,069	\$ -
7										
8										
9										
10	Class Cost per Branch(2)	1	2	3	4	5	6	7		
11	Residential	\$ 40,870	\$ 40,870	\$ 40,870	\$ 42,172	\$ 42,172	\$ -	\$ -	\$ 206,952	\$ 266.31
12	GS 0-15 kW (sec) (23)	\$ 7,117	\$ 7,117	\$ 7,117	\$ 5,832	\$ 5,832	\$ -	\$ -	\$ 33,014	\$ 305.12
13	GS >15 kW (sec) (23)	\$ 1,032	\$ 1,032	\$ 1,032	\$ 845	\$ 845	\$ -	\$ -	\$ 4,786	\$ 305.12
14	GS (pri) (23)	\$ 4	\$ 4	\$ 4	\$ 3	\$ 3	\$ -	\$ -	\$ 17	\$ 305.12
15	GS < 50 kW (sec) (28)	\$ 152	\$ 152	\$ 152	\$ 254	\$ 254	\$ -	\$ -	\$ 964	\$ 130.59
16	GS 51-100 kW (sec) (28)	\$ 119	\$ 119	\$ 119	\$ 200	\$ 200	\$ -	\$ -	\$ 757	\$ 130.59
17	GS > 100 kW (sec) (28)	\$ 69	\$ 69	\$ 69	\$ 115	\$ 115	\$ -	\$ -	\$ 437	\$ 130.59
18	GS (pri) (28)	\$ 2	\$ 2	\$ 2	\$ 3	\$ 3	\$ -	\$ -	\$ 11	\$ 130.59
19	GS 0-300 kW (sec) (30)	\$ 12	\$ 12	\$ 12	\$ 12	\$ 12	\$ -	\$ -	\$ 61	\$ 153.74
20	GS >300 kW (sec) (30)	\$ 30	\$ 30	\$ 30	\$ 31	\$ 31	\$ -	\$ -	\$ 152	\$ 153.74
21	GS (pri) (30)	\$ 3	\$ 3	\$ 3	\$ 3	\$ 3	\$ -	\$ -	\$ 14	\$ 153.74
22	Irrigation	\$ 1,575	\$ 1,575	\$ 1,575	\$ 1,809	\$ 1,809	\$ -	\$ -	\$ 8,341	\$ 820.23
23	USBR / UKRB	\$ 831	\$ 831	\$ 831	\$ 529	\$ 529	\$ -	\$ -	\$ 3,550	\$ 1,035.96
24	Large GS 1 - 4 MW (sec)	\$ -	\$ -	\$ -	\$ 5	\$ 5	\$ -	\$ -	\$ 9	\$ 45.53
25	Large GS 1 - 4 MW (pri)	\$ -	\$ -	\$ -	\$ 2	\$ 2	\$ -	\$ -	\$ 4	\$ 45.53
26	Large GS + 4 MW (sec)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	Large GS + 4 MW (pri)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
28	Check Total	\$ 51,814	\$ 51,814	\$ 51,814	\$ 51,812	\$ 51,812	\$ -	\$ -	\$ 259,065	\$ -

Sources: Line 1 & 3 - 'Average Customers by Hypothetical Feeder Branch' (Cust) Tab 8.6  
 Line 2 - 'Calculation of Hypothetical Feeder Model Branch Cost' (Br\_Cost) Tab 8.9 For \$ 0  
           Line 1 X \$ 0  
 Line 4 - 'Calculation of Hypothetical Feeder Model Branch Cost' (Br\_Cost) Tab 8.9 For \$ 0  
           Line 3 X \$ 0  
 Line 5 - 'Calculation of Hypothetical Feeder Model Branch Cost' (Br\_Cost) Tab 8.9  
 Line 7 to 18 - Line 6 X Percent of Customers 'Average Customers by Hypothetical Feeder Branch' (Cust) Tab 8.6



**PacifiCorp  
Oregon Feeder Model Study  
Dedicated Feeder Trunk Costs  
For Large Customers**

	<b>Voltage Delivery</b>			
	<b>Large GS + 4 MW (pri)</b>		<b>Large GS + 4 MW (sec)</b>	
	Poles	Conductor	Poles	Conductor
1 Construction Cost Per Mile	\$ 44,546	\$ 92,427	\$ 44,546	\$ 92,427
2 Average Trunk Length	0.67 miles		0.67 miles	
3 Total Construction Cost	\$ 29,846	\$ 61,926	\$ 29,846	\$ 61,926
4 Customer Peak Demand	5,009 kW		3,534 kW	
5 Demand Cost \$/kW	\$5.96	\$12.36	\$8.45	\$17.52

Construction Costs for Distribution Line type - 3 Phase -795 AAC & 477 AAC.

- Line 1 - 'System-wide Pole and Conductor Costs' (Line\_Cost) Tab 8.8
- Line 2 - Distribution Engineering Studies
- Line 4 - 'Feeder Model Inputs and Assumptions ' (Inputs) Tab 8.4
- Line 5 - Line 3 divided by Line 4

**PacifiCorp  
Oregon Feeder Model Study  
Trunk All Demand Costs  
Outer Branches Commitment & Demand  
Three Phase As Needed**

CLASS	(A)		(B)		(C)		(D)		(E)		(F)	
	COMMITMENT	\$/Customer	COMMITMENT	\$/Customer	Demand Poles	\$/feeder kW	Conductor	Conductor	Typical feeder CUSTOMERS	Demand Poles	\$/feeder kW	Conductor
Residential	\$ 681.01	\$ 266.31	\$ 157.30	\$ 250.56	777.1	1,831.51				\$ 288,098	\$ 458,898	
GS 0-15 kW (sec) (23)	\$ 780.26	\$ 305.12	\$ 169.89	\$ 267.54	108.2	143.00				\$ 24,293	\$ 38,258	
GS >15 kW (sec) (23)	\$ 780.26	\$ 305.12	\$ 169.89	\$ 267.54	15.7	125.79				\$ 21,370	\$ 33,654	
GS (pri) (23)	\$ 780.26	\$ 305.12	\$ 169.89	\$ 267.54	0.1	0.32				\$ 55	\$ 86	
GS < 50 kW (sec) (28)	\$ 333.96	\$ 130.59	\$ 109.36	\$ 187.91	7.4	113.10				\$ 12,368	\$ 21,252	
GS 51-100 kW (sec) (28)	\$ 333.96	\$ 130.59	\$ 109.36	\$ 187.91	5.8	185.23				\$ 20,257	\$ 34,807	
GS > 100 kW (sec) (28)	\$ 333.96	\$ 130.59	\$ 109.36	\$ 187.91	3.3	242.11				\$ 26,477	\$ 45,494	
GS (pri) (28)	\$ 333.96	\$ 130.59	\$ 109.36	\$ 187.91	0.1	4.89				\$ 535	\$ 919	
GS 0-300 kW (sec) (30)	\$ 393.15	\$ 153.74	\$ 116.29	\$ 197.56	0.4	52.63				\$ 6,121	\$ 10,399	
GS >300 kW (sec) (30)	\$ 393.15	\$ 153.74	\$ 116.29	\$ 197.56	1.0	274.15				\$ 31,881	\$ 54,162	
GS (pri) (30)	\$ 393.15	\$ 153.74	\$ 116.29	\$ 197.56	0.1	23.95				\$ 2,785	\$ 4,731	
Irrigation	\$ 2,097.53	\$ 820.23	\$ 360.92	\$ 512.84	10.2	25.99				\$ 9,379	\$ 13,326	
USBR / UKRB	\$ 2,649.20	\$ 1,035.96	\$ 426.87	\$ 603.94	3.4	20.76				\$ 8,862	\$ 12,538	
Large GS 1 - 4 MW (sec)	\$ 116.43	\$ 45.53	\$ 79.45	\$ 148.76	0.2	161.61				\$ 12,840	\$ 24,040	
Large GS 1 - 4 MW (pri)	\$ 116.43	\$ 45.53	\$ 79.45	\$ 148.76	0.1	107.00				\$ 8,501	\$ 15,916	
Total -	\$ 710.05	\$ 277.66	\$ 143.06	\$ 232.03	933.0	3,312.0						
Large GS + 4 MW (sec)	\$ -	\$ -	\$ 8.45	\$ 17.52	-	3,534.07				\$ 29,846	\$ 61,926	
Large GS + 4 MW (pri)	\$ -	\$ -	\$ 5.96	\$ 12.36	-	5,008.79				\$ 29,846	\$ 61,926	

COMMITMENT		Demand	Total
Poles	\$ 662,503	\$ 533,513	\$ 1,196,016
Conductor	\$ 259,069	\$ 892,332	\$ 1,151,401
Total	\$ 921,572	\$ 1,425,845	\$ 2,347,417

Source : Column (A) - Poles Commitment Calculations' (Br\_Commit\_P) Tab 8.12  
 Column (B) - Conductor Demand Calculations' (Br\_Commit\_C) Tab 8.13  
 Column (C) - Poles Demand Calculations' (Br\_Demand\_P) Tab 8.10  
 Column (D) - Conductor Demand Calculations' (Br\_Demand\_C) Tab 8.11  
 Column (E) - Average Customers by Hypothetical Feeder Branch' (Cust) Tab 8.6  
 Column (F) - Feeder kW Load by Branch' (kW) Tab 8.7



PacifiCorp  
Oregon Marginal Cost Study  
Transformer Commitment Costs

Line	Customer Type	(A) Percent of Customers	(B) Dollars / Tran.	(C) Weighted \$ / Tran.	(D) # Cust. / Tran.	(E) Transformer \$ / Cust. (C) / (D)	(F) Average Customers	(G) Tot. Trans. Commitment \$ (E) x (F)
1	Res - Schedule 4	100.00%	203.60	203.60	3.74	\$54.44	478,485	\$26,048,723
2								
3	GS - Schedule 23							
4	1 Phase	83.40%	203.60	169.81	2.54	\$66.85		
5	3 Phase	16.60%	788.07	130.80	1.37	\$95.47		
6	0-15 KW	100.00%				\$162.33	64,649	\$10,494,394
7								
8	1 Phase	42.59%	203.60	86.71	2.54	\$34.14		
9	3 Phase	57.41%	788.07	452.43	1.37	\$330.24		
10	15+ KW	100.00%				\$364.38	9,372	\$3,414,957
11								
12	Primary	100.00%	-	-	0.00	0	34	\$0
13								
14	GS - Schedule 28							
15	1 Phase	29.11%	203.60	59.27	1.65	\$35.92		
16	3 Phase	70.89%	788.07	558.67	1.19	\$469.47		
17	0-50 KW	100.00%				\$505.39	4,491	\$2,269,714.58
18								
19	1 Phase	13.43%	203.60	27.34	1.65	\$16.57		
20	3 Phase	86.57%	788.07	682.24	1.19	\$573.31		
21	51-100 KW	100.00%				\$589.88	3,525	\$2,079,329
22								
23	1 Phase	2.67%	203.60	5.44	1.65	\$3.30		
24	3 Phase	97.33%	788.07	767.00	1.19	\$644.54		
25	> 101KW	100.00%				\$647.83	2,034	\$1,317,696
26								
27	Primary	100.00%	-	-	0.00	0	50	\$0
28								
29	GS - Schedule 30							
30	1 Phase	0.42%	203.60	0.85	1.71	\$0.50		
31	3 Phase	99.58%	788.07	784.79	1.00	\$784.79		
32	0-300 KW	100.00%				\$785.29	230	\$180,616
33								
34	1 Phase	0.17%	203.60	0.34	1.71	\$0.20		
35	3 Phase	99.83%	788.07	786.75	1.00	\$786.75		
36	301+ KW	100.00%				\$786.95	572	\$450,135
37								
38	Primary	100.00%	-	-	0.00	0	52	\$0
39								
40	LPS - Schedule 48T							
41	1 - 4 MW (sec)	100.00%	788.07	788.07	1.00	788.07	121	\$95,356
42	1 - 4 MW (pri)	100.00%	-	-	0.00	0	56	\$0
43	> 4 MW (sec)	100.00%	788.07	788.07	1.00	788.07	2	\$1,576
44	> 4 MW (pri)	100.00%	-	-	0.00	0	34	\$0
45	Trans (trn)	100.00%	-	-	0.00	0	2	\$0
46								
47	Schedule 41- Irrigation							
48	1 Phase	19.66%	203.60	40.04	1.75	\$22.88		
49	3 Phase	80.34%	788.07	633.10	1.00	\$633.10		
50	Total	100.00%				\$655.98	6,108	\$4,006,726
51								
52	Schedule 33*- Irrigation							
53	1 Phase	3.12%	203.60	6.35	1.75	\$3.63		
54	3 Phase	96.88%	788.07	763.49	1.00	\$763.49		
55	Total	100.00%				\$767.12	2,062	\$1,581,798

\* Schedule 33 Cost of Service results are provided for informational purposes only.

PacifiCorp  
Oregon Marginal Cost Study  
Transformer Demand Costs

Line	Customer Type	(A) Weighted \$/kW	(B) Annual MWh's	(C) Transformer Peak kW's	(D) Tot. Trans. Demand \$ (A) x (C)
1	Res - Schedule 4	(sec) \$1.11	5,435,846	2,402,329	\$2,666,585
2					
3	GS - Schedule 23				
4	0-15 kW	(sec) \$1.44	582,532	271,216	\$390,550
5	15+ kW	(sec) \$1.44	430,256	108,943	\$156,878
6	Primary	(pri) \$0.00	1,152	0	\$0
7					
8	GS - Schedule 28				
9	0-50 kW	(sec) \$1.44	431,990	108,871	\$156,775
10	51-100 kW	(sec) \$1.44	672,435	158,141	\$227,723
11	> 101kW	(sec) \$1.44	922,391	199,971	\$287,958
12	Primary	(pri) \$0.00	18,249	0	\$0
13					
14	GS - Schedule 30				
15	0-300 kW	(sec) \$1.44	206,234	41,138	\$59,239
16	301+ kW	(sec) \$1.44	1,078,480	193,793	\$279,062
17	Primary	(pri) \$1.44	93,931	0	\$0
18					
19					
20	LPS - Schedule 48T				
21	1 - 4 MW	(sec) \$1.44	594,746	143,412	\$206,513
22	1 - 4 MW	(pri) \$0.00	414,743	0	\$0
23	> 4 MW	(sec) \$1.44	54,345	17,994	\$25,912
24	> 4 MW	(pri) \$0.00	1,175,179	0	\$0
25	Trans	(trn) \$0.00	404,889	0	\$0
26					
27	Irrigation - Schedule 41 (Average)				
28	Secondary	(sec) \$1.44	136,792	97,809	\$140,845
29					
30	Irrigation - Schedule 33* (Average)				
31	Secondary	(sec) \$1.44	118,046	84,406	\$121,544
32					
33	Totals		12,654,191	3,743,616	\$4,598,040

Footnote:

Residential \$/kW is decreased by 23% (1/1.3) to account for higher transformer load capacities at the time of residential peak.

\* Schedule 33 Cost of Service results are provided for informational purposes only

PacifiCorp  
Oregon Marginal Cost Study  
Calculation of Escalation Factors for Transformers  
(Regression weighted by number of transformer banks)

Line	Description	(A) Demand Related	(B) Adjusted for System Power Factor of .95	(C) Commitment Related	(D) Indexed to 2010	(E) Annualized \$ @ 10.77%
1	1 Phase \$/kW	\$13.87	(A) / .95 \$14.60		(B) or (C) x 0.9134 \$13.34	(D) x 10.77% \$1.44
2						
3	3 Phase \$/kW	\$13.87	\$14.60		\$13.34	\$1.44
4						
5	1 Phase \$/Transformer			\$2,069.70	\$1,890.47	\$203.60
6						
7						
8	3 Phase Dummy Variable			\$5,941.29		
9						
10						
11	3 Phase \$/Transformer			\$8,010.99	\$7,317.24	\$788.07
12						

Pacific Region	
<u>Index</u>	Escalation Factor
2008	2010
530.0	484.1
	$\frac{2008 - 2010}{0.9134}$

Footnotes:  
MC\_Oregon\_2010 - Reply.xls



Dist OM

PacifiCorp  
Oregon Marginal Cost Study  
Distribution O&M Expense  
Loading Factor as a Percent of Dist. Plant  
(Excluding Meters and St Ltg)

Line	Description	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
	<b>Distribution O &amp; M Expenses</b>										
1	Total Distribution O & M Expense	33,064,114	34,852,307	42,485,996	48,122,256	48,559,856	48,811,823	71,993,550	67,011,911	68,781,531	71,602,482
2	Less:										
3	585 St Ltg & Signal Systems	265,823	-	-	-	-	13,067	89,965	45,553	48,057	75,549
4	586 Meter Expense	2,283,801	-	-	1,479,307	1,800,451	2,010,097	1,892,897	2,122,259	2,058,440	2,206,057
5	587 Customer Installation Expense	1,328,126	332,819	132,472	11,531	9,542	90,751	62,896	-	-	3,636,287
6	596 Main. of St Ltg & Signal Systems	239,770	249,477	289,510	609,632	814,491	756,545	885,374	843,436	851,273	945,804
7	597 Main. of Meters	256,703	1,047,453	674,571	664,777	825,166	1,190,462	1,237,234	1,348,150	1,669,096	1,560,945
8											
9	Total Adjusted Distribution O & M Expense	28,689,891	33,222,557	41,389,443	45,357,009	45,110,206	44,750,901	67,825,184	62,652,513	64,154,665	63,177,840
10	Line 1 - (Lines 3 through 7)										
11											
12											
13	<b>Distribution Plant</b>										
14	Total Distribution Plant	1,162,012,609	1,192,703,978	1,235,859,101	1,271,410,972	1,303,063,520	1,341,098,219	1,384,196,236	1,431,636,624	1,476,365,173	1,530,307,351
15	Less:										
16	370 Meters	54,919,747	56,597,405	55,765,666	56,108,548	57,067,003	56,828,689	56,705,794	58,095,163	58,456,991	59,166,811
17	373 Street Lighting	13,742,452	14,339,640	15,038,442	15,408,466	16,135,274	16,827,066	17,637,977	18,351,472	19,120,699	20,208,050
18											
19	Adjusted Distribution Plant	1,093,350,410	1,121,766,933	1,165,054,993	1,199,893,958	1,229,861,243	1,267,442,464	1,309,852,465	1,355,189,989	1,398,787,483	1,450,930,490
20	Line 14 - Line 16 - Line 17										
21											
22											
23	<b>O &amp; M Expense Loading Factor</b>										
24	Distribution O & M Loading	2.62%	2.96%	3.55%	3.78%	3.67%	3.53%	5.18%	4.62%	4.59%	4.35%
25	Line 9 / Line 19										
26											
27	<b>Average Distribution O &amp; M Loading</b>										
28	Average of Line 24	3.89%									
29											
30	Distribution Annual Charge	10.77%									
31											
32	Annualized Distribution O & M Loading Factor	36.12%									
33	Line 27 / Line 30										

Footnotes:  
Source: FERC Form 1 (State of Oregon) & Results of Operations





Meters 1

PacifiCorp  
Oregon Marginal Cost Study  
Weighted Average Installed Meter Costs  
Res - Schedule 4 / GS - Schedule 23 / GS - Schedule 28

Line	Load Class	% of Customers			Metering Cost	Weighted Metering Cost		
		Customers (A) / (A,TU)	1 & 3 Phase (A) / 1Ø	3 Phase (A) / 3Ø		1 & 3 Phase (B) x (E)	1 Phase (C) x (E)	3 Phase (D) x (E)
1	Res - Schedule 4	469,380	100.00%	100.00%	\$101	\$101.01	\$101.01	\$101.01
2	Annualized - (Line 1) x 10.77%					\$10.88	\$10.88	\$10.88
3								
4	GS - Schedule 23							
5	0-15 kW							
6	kW = 0, 1 Phase	50,770	77.69%	93.15%	\$86	\$66.67	\$79.94	\$87.65
7	kW = 0, 3 Phase	3,767	5.76%		\$252	\$14.55		
8	kW > 1, 1 Phase	3,735	5.72%	6.85%	\$191	\$10.91	\$13.08	
9	kW > 1, 3 Phase	7,080	10.83%		\$252	\$27.34		
10	Total 0-15 kW							
11	Annualized - (Line 10) x 10.77%	65,352	100.00%	100.00%	\$119.47	\$119.47	\$93.02	\$252.40
12						\$12.87	\$10.02	\$27.18
13								
14	15+ kW							
15	1 Phase	4,035	42.59%	100.00%	\$207	\$88.15	\$206.97	
16	3 Phase W/O KVAR	4,579	48.33%		\$252	\$121.99		\$212.49
17	3 Phase With KVAR	860	9.08%	15.81%	\$411	\$37.30	\$64.97	\$64.97
18	Total 15+ kW							
19	Annualized - (Line 17) x 10.77%	9,474	100.00%	100.00%	\$247.44	\$247.44	\$206.97	\$277.46
20						\$26.65	\$22.29	\$29.88
21	Primary							
22	12.47 KV 4-wire Wye OH	34	100.00%	100.00%	\$7,794	\$7,794.11	\$0.00	\$7,794.11
23	Annualized - (Line 21) x 10.77%					\$839.43	\$0.00	\$839.43
24								
25	GS - Schedule 28							
26	0-50 kW							
27	kW = 0, 1 Phase	1	0.02%	0.08%	\$207	\$0.05	\$0.16	\$0.16
28	kW = 0, 3 Phase	2	0.04%		\$252	\$0.11		
29	kW > 1, 1 Phase	1,297	29.09%	99.92%	\$207	\$60.20	\$206.81	
30	kW > 1, 3 Phase	3,159	70.85%		\$252	\$178.81		\$252.24
31	Total 0-50 kW							
32	Annualized - (Line 30) x 10.77%	4,459	100.00%	100.00%	\$239.17	\$239.17	\$206.97	\$252.40
33						\$25.76	\$22.29	\$27.18
34	51-100 kW							
35	1 Phase	470	13.43%	100.00%	\$207	\$27.79	\$206.97	
36	3 Phase W/O KVAR	1,791	51.17%		\$252	\$129.16		\$149.19
37	3 Phase With KVAR	1,239	35.40%	40.89%	\$411	\$145.46	\$317.21	\$168.02
38	Total 51-100 kW							
39	Annualized - (Line 37) x 10.77%	3,500	100.00%	100.00%	\$302.41	\$302.41	\$206.97	\$317.21
40						\$32.57	\$22.29	\$34.16
41	> 101kW							
42	1 Phase	54	2.67%	100.00%	\$849	\$22.70	\$849.07	
43	3 Phase W/O KVAR	873	43.22%	44.40%	\$1,365	\$589.91	\$606.12	\$606.12
44	3 Phase With KVAR	1,093	54.11%	55.60%	\$1,365	\$738.58	\$758.86	\$758.86
45	Total > 101kW							
46	Annualized - (Line 44) x 10.77%	2,020	100.00%	100.00%	\$1,351.19	\$1,351.19	\$849.07	\$1,354.98
47						\$145.52	\$91.44	\$147.01
48	Primary							
49	12.47 KV 4-wire Wye OH	50	100.00%	100.00%	\$7,794	\$7,794.11	\$0.00	\$7,794.11
	Annualized - (Line 48) x 10.77%					\$839.43	\$0.00	\$839.43

Footnote:

Column A - Customer inputs from Pricing Dept - data based on 12 months ended June 2008.

Meters 2

PacificCom  
Oregon Marginal Cost Study  
Weighted Average Installed Meter Costs  
GS - Schedule 30 / LPS - Schedule 48T / Irrigation - Schedule 41 (Annual)

Line	Load Class	% of Customers				Metering Cost		Weighted Metering Cost		
		Customers (A)	1 & 3 Phase (A)/(A,TU)	1 Phase (A)/1Ø	3 Phase (A)/3Ø	Cost (B)	Cost (C)	1 & 3 Phase (B) x (E)	1 Phase (C) x (E)	3 Phase (D) x (E) (F) x 10.77%
1	GS - Schedule 30									
2	0-300 kW									
3	1 Phase	1	0.42%	100.00%		\$849	\$3.54	\$848.07		\$245.58
4	3 Phase W/O KVAR	43	17.92%		17.99%	\$1,365	\$244.56			\$1,119.40
5	3 Phase With KVAR	196	81.67%		82.01%	\$1,365	\$1,114.73			\$1,364.98
6	Total 0-300 kW	240	100.00%	100.00%	100.00%		\$1,362.83	\$849.07	\$91.44	\$147.01
7	Annualized - (Line 6) x 10.77%						\$146.78			
8	301+ kW									
9	1 Phase	1	0.17%	0.00%		\$921	\$1.54	\$0.00		\$180.93
10	3 Phase W/O KVAR	79	13.23%		13.28%	\$1,365	\$180.63			\$1,184.05
11	3 Phase With KVAR	517	86.60%		86.74%	\$1,365	\$1,182.07			\$1,364.98
12	301+ kW	597	100.00%	0.00%	100.00%		\$1,364.24	\$0.00	\$0.00	\$147.01
13	Annualized - (Line 13) x 10.77%						\$146.93			
14	Primary									
15	12.47 KV 4-wire Wye OH									
16	Annualized - (Line 17) x 10.77%						\$7,794.11	\$7,794.11		\$839.43
17	12.47 KV 4-wire Wye OH	55	100.00%		100.00%		\$7,794.11	\$7,794.11		\$839.43
18	Annualized - (Line 17) x 10.77%						\$839.43			
19	LPS - Schedule 48T									
20	1 - 4 MW (sec)	123	100.00%		100.00%	\$1,706	\$1,706.22			\$183.76
21	1 - 4 MW (prt)	57	100.00%		100.00%	\$7,794	\$7,794.11			\$839.43
22	> 4 MW (sec)	2	100.00%		100.00%	\$1,706	\$1,706.22			\$183.76
23	> 4 MW (prt)	34	100.00%		100.00%	\$7,794	\$7,794.11			\$839.43
24	> 4 MW (sec)	34	100.00%		100.00%	\$7,794	\$7,794.11			\$839.43
25	Trans (tm)	2	100.00%		100.00%	\$278,949	\$278,945.50			\$30,042.75
26	218									
27	Irrigation - Schedule 41 (Annual)									
28	0 - 50 kW									
29	KW = 0, 1 Phase	169	2.75%	13.99%		\$86	\$2.36	\$12.01		\$36.72
30	KW = 0, 3 Phase	718	11.69%		14.55%	\$252	\$28.50	\$32.24		\$191.59
31	KW > 1, 1 Phase	1,038	16.90%		85.83%	\$191	\$32.24	\$163.96		\$17.08
32	KW > 1, 3 Phase	3,746	60.98%		75.91%	\$252	\$153.91			\$10.16
33	51 - 300 kW									
34	1 Phase W/O KVAR	1	0.02%	0.08%		\$207	\$0.03	\$0.17		\$17.08
35	3 Phase W/O KVAR	334	5.44%		6.77%	\$252	\$13.72	\$6.16		\$10.16
36	3 Phase With KVAR	122	1.98%		2.47%	\$411	\$6.16			\$10.16
37	> 300 kW									
38	1 Phase									
39	3 Phase W/O KVAR	3	0.05%	0.00%	0.06%	\$921	\$0.00	\$0.00		\$0.83
40	3 Phase With KVAR	12	0.20%		0.24%	\$1,365	\$2.67	\$2.67		\$3.32
41	Total Irrigation	6,143	100.00%	100.00%	100.00%		\$243.26	\$176.14	\$259.70	\$27.97
42	Primary						\$26.20	\$18.97	\$27.97	\$0.00
43	Annualized - (Line 43) x 10.77%						\$0.00	\$0.00	\$0.00	\$0.00
44	Irrigation - Schedule 33* (Annual)									
45	0 - 50 kW									
46	KW = 0, 1 Phase	61	2.68%	85.92%		\$96	\$2.30	\$73.73		\$23.81
47	KW = 0, 3 Phase	208	9.14%		9.43%	\$252	\$23.07	\$26.88		\$156.71
48	KW > 1, 1 Phase	10	0.44%	14.08%		\$191	\$0.84	\$26.88		\$156.71
49	KW > 1, 3 Phase	1,369	66.15%		62.05%	\$252	\$151.82			\$27.97
50	51 - 300 kW									
51	1 Phase W/O KVAR	24	1.05%	0.00%	1.05%	\$207	\$0.00	\$0.00		\$2.75
52	3 Phase W/O KVAR	596	26.19%		27.03%	\$252	\$2.66	\$107.60		\$111.07
53	3 Phase With KVAR									
54	> 300 kW									
55	1 Phase									
56	3 Phase W/O KVAR	2	0.00%	0.00%	0.09%	\$921	\$0.00	\$0.00		\$1.24
57	3 Phase With KVAR	6	0.26%		0.27%	\$1,365	\$3.60	\$3.71		\$289.29
58	Total Irrigation	2,276	100.00%	100.00%	100.00%		\$293.09	\$100.61	\$31.57	\$32.23

Footnote:  
Column A - Customer inputs from Pricing Dept. - data based on 12 months ended June 2008.  
\* Schedule 33 Cost of Service results are provided for informational purposes only.

**Meters 3**

PacifiCorp  
Oregon Marginal Cost Study  
Increment Three Phase  
Meter and Services Costs

Line	Load Class	Meters					Service Drops			Annualized Difference
		(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	
		Single Phase	Three Phase	Difference	Annualized Difference	Single Phase	Three Phase	Difference		
				(B) - (A)	(C) x 10.77%			(F) - (E)	(G) x 10.77%	
1	Residential	\$101.01	\$252.40	\$151.39	\$16.30	\$563.52	\$804.52	\$241.00	\$25.96	
2										
3	0-15 kW	\$85.82	\$252.40	\$166.58	\$17.94	\$680.58	\$905.38	\$224.80	\$24.21	
4										
5	16-100 kW	\$206.97	\$252.40	\$45.43	\$4.89	\$1,233.42	\$1,674.00	\$440.57	\$47.45	
6										
7	101-1000 kW	\$920.76	\$1,364.98	\$444.22	\$47.84	\$3,622.67	\$3,556.57	(\$66.10)	(\$7.12)	
8										
9	1 - 4 MW	N.A.	\$1,706.22	\$1,706.22	\$183.76	N.A.	\$6,387.06	\$6,387.06	\$687.89	

Meters 4

PacifiCorp  
Oregon Marginal Cost Study  
Summary of Average Installed Costs  
Meters

	(A)	(B)	(C)	(D)	(E)	
Line	Metering Standard	Meter Cost in 2008 Dollars	Indexed to 2010	Percent Use	Total Installed Cost per Service	
<u>Residential</u>						
1	Overhead (small load)	DM221A	\$85.00	\$85.82	57.00%	\$48.92
2	Overhead (all electric)	DM221D	\$120.00	\$121.15	43.00%	\$52.10
3				100.00%	\$101.01	
4						
5	<u>0 - 15 kW</u>					
6	kW = 0, 1 Phase OH	DM221A	\$85.00	\$85.82	100.00%	\$85.82
7				\$169.11		
8	kW = 0, 3 Phase OH	DM241A	\$250.00	\$252.40	100.00%	\$252.40
9						
10	kW > 1, 1 Phase OH	DM221B	\$189.00	\$190.81	100.00%	\$190.81
11						
12	kW > 1, 3 Phase OH	DM241A	\$250.00	\$252.40	100.00%	\$252.40
13				\$125.27		
14				\$59.55	\$184.81	
15	<u>15 - 100 kW</u>					
16	1 Phase OH	DM221C	\$205.00	\$206.97	100.00%	\$206.97
17				\$229.68		
18	3 Phase wo / KVAR OH	DM241A	\$250.00	\$252.40	100.00%	\$252.40
19						
20	3 Phase with KVAR OH	DM241B	\$407.00	\$410.91	100.00%	\$410.91
21						
22						
23	<u>100 - 300 kW</u>					
24	1 Phase OH	DM231ABB	\$841.00	\$849.07	100.00%	\$849.07
25						
26	3 Phase wo / KVAR OH	DM271AEC	\$1,352.00	\$1,364.98	100.00%	\$1,364.98
27						
28	3 Phase with KVAR OH	DM271AEC	\$1,352.00	\$1,364.98	100.00%	\$1,364.98
29						
30						
31	<u>300-1000 kW</u>					
32	W/O KVAR, 1 Phase OH	DM231AFE	\$912.00	\$920.76	100.00%	\$920.76
33						
34	W/O KVAR, 3 Phase OH	DM271AEC	\$1,352.00	\$1,364.98	100.00%	\$1,364.98
35						
36	W/KVAR, 3 Phase OH	DM271AEC	\$1,352.00	\$1,364.98	100.00%	\$1,364.98
37						
38						
39	<u>1000 kW and over</u>					
40	Secondary Volt(1) OH	DM271AFG	\$1,690.00	\$1,706.22	100.00%	\$1,706.22
41						
42	<u>Primary Metering</u>					
43	13.8 KV 3-wire OH	DM101ACBI	\$6,552.00	\$6,614.90		\$6,614.90
44	12.47 KV 4-wire Wye OH	DM121ABBI	\$7,720.00	\$7,794.11		\$7,794.11
45	24.9 KV 4-wire Wye OH	DM121AGBI	\$10,559.00	\$10,660.37		\$10,660.37
46	35 KV 4-wire Wye OH	DM131ABH	\$24,297.00	\$24,530.25		\$24,530.25

Further Breakdown of Overhead

% of Overhead Which Are Small Load	57.00%
% of Overhead Which Are All Electric :	43.00%

<i>Pacific Region</i>		
<u>Index</u>		<u>Escalation Factor</u>
<u>2008</u>	<u>2010</u>	<u>2008 - 2010</u>
333.8	337.0	1.0096

Meters 5

PacifiCorp  
Oregon Marginal Cost Study  
Distribution Meters Expense  
Loading Factor

Line	Description	(A) 1998	(B) 1999	(C) 2000	(D) 2001	(E) 2002	(F) 2003	(G) 2004	(H) 2005	(I) 2006	(J) 2007
<u>Distribution Meters Expenses</u>											
1	586 Meter Expense	2,283,801	-	-	1,479,307	1,800,451	2,010,097	1,892,897	2,122,259	2,058,440	2,206,057
2	597 Main. of Meters	256,703	1,047,453	674,571	664,777	825,166	1,190,462	1,237,234	1,348,150	1,669,096	1,560,945
3											
4	Total Adjusted Distribution Meters Expense	2,540,504	1,047,453	674,571	2,144,084	2,625,617	3,200,559	3,130,131	3,470,409	3,727,536	3,767,002
5	Line 1 + Line 2										
6											
7											
8											
9											
<u>Distribution Meters</u>											
10	370 Meters	54,919,747	56,597,405	55,765,666	56,108,548	57,067,003	56,828,689	56,705,794	58,095,163	58,456,991	59,168,811
11											
12											
13											
<u>Meters Expense Loading Factor</u>											
14	Meter O&M Loading	4.63%	1.85%	1.21%	3.82%	4.60%	5.63%	5.52%	5.97%	6.38%	6.37%
15	Line 3 / Line 4										
16											
17											
18	Average Meter O&M Loading	4.60%									
19	Average of Line 5										
20											
21	Distribution Annual Charge	10.77%									
22											
23	Annualized Meter O&M Loading Factor	42.69%									
24	Line 6 / Line 7										



Services 1

PacifiCorp  
Oregon Marginal Cost Study  
Weighted Average Installed Service Drop Costs  
Res - Schedule 4 / GS - Schedule 23 / GS - Schedule 28

Line	Load Class	% of Customers				Service Drop Cost	Weighted Service Drop Cost		
		Customers	1 & 3 Phase (A) / (A,Tl)	1 Phase (A) / lØ	3 Phase (A) / 3Ø		1 & 3 Phase (B) x (E)	1 Phase (C) x (E)	3 Phase (D) x (E)
1	Res - Schedule 4								
2	Annualized - Line 1 x 10.77%	469,380	100.00%	100.00%	100.00%	\$482	\$482.50	\$482.50	\$51.97
3							\$51.97		
4	GS - Schedule 23								
5	0-15 kW								
6	KW = 0, 1 Phase	50,770	77.68%	93.15%	34.73%	\$564	\$437.79	\$524.91	\$279.40
7	KW = 0, 3 Phase	3,767	5.76%			\$805	\$46.37		
8	KW > 1, 1 Phase	3,735	5.72%	6.85%		\$681	\$38.90	\$46.64	
9	KW > 1, 3 Phase	7,080	10.83%		65.27%	\$905	\$98.09	\$590.96	
10	Total 0-15 kW	65,352	100.00%	100.00%	100.00%		\$621.15	\$571.55	\$870.36
11	Annualized - Line 10 x 10.77%						\$66.90	\$61.56	\$93.74
12									
13	15+ kW								
14	1 Phase	4,035	42.59%	100.00%		\$1,233	\$525.32	\$1,233.42	
15	3 Phase W/O KVAR	4,579	48.33%		84.19%	\$1,674	\$809.08	\$1,409.31	
16	3 Phase With KVAR	860	9.08%		15.81%	\$1,674	\$151.96	\$264.69	
17	Total 15+ kW	9,474	100.00%	100.00%	100.00%		\$1,486.36	\$1,233.42	\$1,674.00
18	Annualized - Line 17 x 10.77%						\$160.08	\$132.84	\$180.29
19									
20	Primary								
21	12.47 KV 4-wire Wye OH	34	100.00%		100.00%	\$1,674	\$1,674.00	\$1,674.00	\$0.00
22	Annualized - (Line 21) x 10.77%					\$180.29	\$0.00	\$180.29	\$0.00
23									
24	GS - Schedule 28								
25	0-50 kW								
26	KW = 0, 1 Phase	1	0.02%	0.08%		\$1,233	\$0.28	\$0.95	\$1.06
27	KW = 0, 3 Phase	2	0.04%		0.06%	\$1,674	\$0.75		
28	KW > 1, 1 Phase	1,297	29.09%	99.92%		\$1,233	\$358.77	\$1,232.47	
29	KW > 1, 3 Phase	3,159	70.85%		99.94%	\$1,674	\$1,185.95	\$1,672.94	
30	Total 0-50 kW	4,459	100.00%	100.00%	100.00%		\$1,545.75	\$1,233.42	\$1,674.00
31	Annualized - Line 30 x 10.77%						\$166.48	\$132.84	\$180.29
32									
33	51-100 kW								
34	1 Phase	470	13.43%	100.00%		\$1,233	\$165.63	\$1,233.42	
35	3 Phase W/O KVAR	1,791	51.17%		59.11%	\$1,674	\$856.61	\$989.48	
36	3 Phase With KVAR	1,239	35.40%		40.89%	\$1,674	\$592.60	\$684.52	
37	Total 51-100 kW	3,500	100.00%	100.00%	100.00%		\$1,614.84	\$1,233.42	\$1,674.00
38	Annualized - Line 37 x 10.77%						\$173.92	\$132.84	\$180.29
39									
40	> 101kW								
41	1 Phase	54	2.67%	100.00%		\$3,623	\$96.84	\$3,622.67	
42	3 Phase W/O KVAR	873	43.22%		44.40%	\$3,557	\$1,537.07	\$1,579.29	
43	3 Phase With KVAR	1,093	54.11%		55.60%	\$3,557	\$1,924.42	\$1,977.28	
44	Total > 101kW	2,020	100.00%	100.00%	100.00%		\$3,558.33	\$3,622.67	\$3,556.57
45	Annualized - Line 44 x 10.77%						\$383.23	\$390.16	\$383.04
46									
47	Primary								
48	12.47 KV 4-wire Wye OH	50	100.00%		100.00%	\$0.	\$0.00	\$0.00	\$0.00
49	Annualized - (Line 48) x 10.77%						\$0.00	\$0.00	\$0.00

Footnote:  
Column A - Customer inputs from Pricing Dept - data based on 12 months ended June 2008.



Services 2

PacifiCorp  
Oregon Marginal Cost Study  
Weighted Average Installed Service Drop Costs  
GS - Schedule 30 / LPS - Schedule 48T / Irrigation - Schedule 41 (Annual)

Line	Load Class	% of Customers			Service Drop Cost	Weighted Service Drop Cost			
		Customers (A)	1 & 3 Phase (B)	1 Phase (C)		3 Phase (D)	1 & 3 Phase (B) x (E)	1 Phase (G)	3 Phase (H)
		(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
		(A)	(A, Tt)	(A) / 1Ø	(A) / 3Ø		(B) x (E)	(C) x (E)	Annualized
1	GS - Schedule 30								
2	0-300 kW								
3	1 Phase	1	0.42%	100.00%		\$3,623	\$15.09	\$3,622.67	
4	3 Phase W/O KVAR	43	17.92%		17.99%	\$3,557	\$637.22		\$639.88
5	3 Phase With KVAR	196	81.67%		82.01%	\$3,557	\$2,904.53		\$2,916.68
6	Total 0-300 kW	240	100.00%	100.00%	100.00%	\$10,736	\$3,556.84	\$3,622.67	\$3,556.56
7	Annualized - Line 7 x 10.77%						<u>\$383.07</u>	<u>\$390.16</u>	<u>\$383.04</u>
8	301+ kW								
9	1 Phase	1	0.17%	100.00%		\$3,623	\$6.07	\$3,622.67	
10	3 Phase W/O KVAR	79	13.23%		13.26%	\$3,557	\$470.63		\$471.42
11	3 Phase With KVAR	517	86.60%		86.74%	\$3,557	\$3,079.98		\$3,085.14
12	Total 301+ kW	597	100.00%	100.00%	100.00%	\$3,556.68	\$3,556.68	\$3,622.67	\$3,556.56
13	Annualized - Line 14 x 10.77%						<u>\$383.05</u>	<u>\$390.16</u>	<u>\$383.04</u>
14	Primary								
15	12.47 KV 4-wire Wye OH	55	100.00%		100.00%	\$0	\$0.00	\$0.00	\$0.00
16	Annualized - Line 18 x 10.77%						<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>
17	LPS - Schedule 48T								
18	1 - 4 MW (sec)	123	100.00%		100.00%	\$6,387	\$6,387.06		\$687.89
19	1 - 4 MW (pri)	57	100.00%		100.00%	\$0	\$0.00		\$0.00
20	> 4 MW (sec)	2	100.00%		100.00%	\$6,387	\$6,387.06		\$687.89
21	> 4 MW (pri)	34	100.00%		100.00%	\$0	\$0.00		\$0.00
22	Trans (trn)	2	100.00%		100.00%	\$0	\$0.00		\$0.00

Footnote:

3 Phase With KVAR  
Column (E) - see Tab 12.3 (Services 3:) 'Summary of Average Installed Costs Service Drops'

Services 3

PacifiCorp  
Oregon Marginal Cost Study  
Summary of Average Installed Costs  
Service Drops

Line	Load Class	(A) Service Conductor	(B) Cost	(C) Indexed to 2010	(D) Percent Use	(E) Total Cost per Service
				(B) x 0.9793 - OH		
				(B) x 1.0263 - UG		
	<u>Residential</u>					
1	OH - small load	#2 Triplex*	\$431	\$422	18.65%	\$78.73
2	OH - all electric	1/0 Triplex	\$503	\$493	14.07%	\$69.32
3	UG - small load	1/0 Triplex	\$425	\$436	0.67%	\$2.93
4	UG - all electric	4/0 Triplex	\$485	\$498	66.60%	\$331.52
5						\$482.50
6	<u>0 - 15 kW</u>					
7	kW = 0, 1 Phase	OH - 1/0 Triplex	\$567	\$555	32.73%	\$181.71
8		UG - 1/0 Triplex	\$553	\$568	67.27%	\$381.81
9						\$563.52
10						
11	kW = 0, 3 Phase	OH - 1/0 Quadruplex	\$761	\$745	32.73%	\$243.88
12		UG - 1/0 Quadruplex	\$812	\$833	67.27%	\$560.64
13						\$804.52
14						
15	kW > 1, 1 Phase	OH - 4/0 Triplex	\$803	\$786	32.73%	\$257.34
16		UG - 4/0 Triplex	\$613	\$629	67.27%	\$423.24
17						\$680.58
18						
19	kW > 1, 3 Phase	OH - 4/0 Quadruplex	\$968	\$948	32.73%	\$310.22
20		UG - 4/0 Quadruplex	\$862	\$885	67.27%	\$595.16
21						\$905.38
22	<u>15 - 100 kW</u>					
23	1 Phase	OH - 2-4/0 Triplex	\$1,481	\$1,450	32.73%	\$474.63
24		UG - 2-4/0 Triplex	\$1,099	\$1,128	67.27%	\$758.79
25						\$1,233.42
26						
27	3 Phase WO / KVAR	OH - 2-4/0 Quadruplex	\$1,785	\$1,748	32.73%	\$572.05
28		UG - 2-4/0 Quadruplex	\$1,596	\$1,638	67.27%	\$1,101.94
29						\$1,674.00
30						
31	3 Phase W / KVAR	OH - 2-4/0 Quadruplex	\$1,785	\$1,748	32.73%	\$572.05
32		UG - 2-4/0 Quadruplex	\$1,596	\$1,638	67.27%	\$1,101.94
33						\$1,674.00
34	<u>100-1000 kW</u>					
35	W/O KVAR, 1 Phase	3-500 & 350N	\$3,561	\$3,487	32.73%	\$1,141.22
36		3- 750 & 500 N	\$3,594	\$3,689	67.27%	\$2,481.44
37						\$3,622.67
38						
39	W/O KVAR, 3 Phase	OH - 3-4/0 Quadruplex	\$3,428	\$3,357	32.73%	\$1,098.60
40		4-350 Quad	\$3,560	\$3,654	67.27%	\$2,457.97
41						\$3,556.57
42						
43	W/KVAR, 3 Phase	OH - 3-4/0 Quadruplex	\$3,428	\$3,357	32.73%	\$1,098.60
44		4-350 Quad	\$3,560	\$3,654	67.27%	\$2,457.97
45						\$3,556.57
46	<u>1000 kW and Over</u>					
47	Secondary Volt(1)	3-500 kcmil Quad.	\$5,687	\$5,569	32.73%	\$1,822.56
48		4-500 kcmil Quad.	\$6,611	\$6,785	67.27%	\$4,564.51
49						\$6,387.06
50						
51	Primary Volt	---	---	---		---

Pacific Region			
Service Type	Index		Escalation Factor 2008 - 2010
	2008	2010	
Overhead	486.9	476.8	0.9793
Underground	353.3	362.6	1.0263

		Weighted %	
Overhead % =		32.73%	
% of Overhead Which Are Small Load=		57.00%	18.65%
% of Overhead Which Are All Electric=		43.00%	14.07%
Underground % =		67.27%	
% of Underground Which Are Small Load=		1.00%	0.67%
% of Underground Which Are All Electric=		99.00%	66.60%
Total OH & UG			100.00%



Cust Exp Sum

PacifiCorp  
Oregon Marginal Cost Study  
Summary of Customer Accounting Expense  
By Schedule  
December 2010 Dollars

Line	FERC Account	Description	(A) Sch. 4 Res	(B) Sch. 23 Com	(C) Sch. 28 Com	(D) Sch. 30 Com	(E) Sch. 48T Ind	(F) Sch. 41 Irrigation	(G) Sch. 33* Irrigation	(H) Streetlighting	(I) Total
1		Average Number of Customers	478,485	74,055	10,100	854	215	2,834	756	1,041	567,584
2		Write-offs By Schedule									
3			1,372,331	57,241	71,861	43,522	67,501	9,875	1,972	-	1,622,330
4											
5	901	Supervision									
6		Account 902 + 903 + 904	\$26,995,625	\$3,746,186	\$753,142	\$246,494	\$314,740	\$204,441	\$52,118	\$32,660	\$32,293,287
7		% of Total 902 + 903 + 904	83.60%	11.60%	2.33%	0.76%	0.97%	0.63%	0.16%	0.10%	100.00%
8		Total 901 \$	\$2,946,291	\$408,857	\$82,198	\$26,902	\$34,351	\$22,313	\$5,688	\$3,565	\$3,524,476
9		Dollars Per Customer	\$6.16	\$5.52	\$8.14	\$31.50	\$159.77	\$7.87	\$7.52	\$3.42	\$6.21
10	902	Meter Reading Expense									
11		902 Weighting Factor	1.00	1.24	1.20	5.41	8.21	1.91	1.91	0.12	
12		Weighted Customers	478,485	91,828	12,120	4,620	1,765	5,413	1,445	125	594,357
13		% of Total \$	80.50%	15.45%	2.04%	0.78%	0.30%	0.91%	0.24%	0.02%	100.00%
14		Total 902 \$	\$6,698,382	\$1,285,517	\$169,670	\$64,678	\$24,711	\$75,780	\$20,174	\$1,749	\$8,320,486
15		Dollars Per Customer	\$14.00	\$17.36	\$16.80	\$75.74	\$114.93	\$26.74	\$26.67	\$1.68	\$14.66
16	903	Cust. Receipts & Collect.									
17		903 Weighting Factor	1.00	0.94	1.01	1.01	7.38	1.02	1.02	0.92	
18		Weighted Customers	478,485	69,971	10,202	863	1,587	2,904	775	958	564,969
19		% of Total \$	84.69%	12.38%	1.81%	0.15%	0.28%	0.51%	0.14%	0.17%	100.00%
20		Total 903 \$	\$15,442,060	\$2,258,157	\$329,236	\$27,838	\$51,218	\$93,723	\$24,977	\$30,911	\$18,233,143
21		Dollars Per Customer	\$32.27	\$30.49	\$32.60	\$32.60	\$238.22	\$33.07	\$33.02	\$29.69	\$32.12
22	904	Uncollectibles									
23		Total 904 \$	\$4,855,183	\$202,513	\$254,236	\$153,977	\$238,812	\$34,937	\$6,968	\$0	\$5,739,658
24		% of Write-offs	84.59%	3.53%	4.43%	2.68%	4.16%	0.61%	0.12%	0.00%	
25		Dollars Per Customer	\$10.15	\$2.73	\$25.17	\$180.30	\$1,110.75	\$12.33	\$9.21	\$0.00	\$10.11
26	905	Misc Cust Acct Expense									
27		Account 902 + 903 + 904	\$26,995,625	\$3,746,186	\$753,142	\$246,494	\$314,740	\$204,441	\$52,118	\$32,660	\$32,293,287
28		% of Total 902 + 903 + 904	83.60%	11.60%	2.33%	0.76%	0.97%	0.63%	0.16%	0.10%	100.00%
29		Total 905 \$	\$317,337	\$44,037	\$8,853	\$2,898	\$3,700	\$2,403	\$613	\$384	\$379,612
30		Dollars Per Customer	\$0.66	\$0.59	\$0.88	\$3.39	\$17.21	\$0.85	\$0.81	\$0.37	\$0.67
31	907-910	Supervision, Cust. Assist.									
32		Info & Instructional Exp.,	478,485	74,055	10,100	854	215	2,834	756	1,041	567,584
33		% of Total	84.30%	13.05%	1.78%	0.15%	0.04%	0.50%	0.13%	0.18%	100.13%
34		Misc Cust Svc & Info Exp.	\$2,870,123	\$444,208	\$60,583	\$5,123	\$1,290	\$17,000	\$4,531	\$6,244	\$3,404,571
35		Dollars Per Customer	\$6.00	\$6.00	\$6.00	\$6.00	\$6.00	\$6.00	\$5.99	\$6.00	\$6.00
36											
37		Total 901 - 910	\$33,129,376	\$4,643,289	\$904,776	\$281,416	\$354,080	\$246,157	\$62,950	\$42,853	\$39,601,946
38											
39		Dollars Per Customer	\$69.24	\$62.70	\$89.58	\$329.53	\$1,646.88	\$86.85	\$83.23	\$41.16	\$69.77

\* Schedule 33 Cost of Service results are provided for informational purposes only.

Cust Exp Year

PacifiCorp  
Oregon Marginal Cost Study  
Summary of Customer and Metering Expenses  
December 2010 Dollars

Line	Description	(A) Actual 2003 Dollars	(B) Actual 2004 Dollars	(C) Actual 2005 Dollars	(D) Actual 2006 Dollars	(E) Actual 2007 Dollars	(F) Adjusted 2010 Dollars
							[(A) x 1.1444+ (B) x 1.1225+ (C) x 1.1011+ (D) x 1.0801+ (E) x 1.0595] / 5
	Customer Accounting						
1	901 Supervision	3,025,374	3,174,507	3,981,235	4,869,032	900,404	\$3,524,476
2	902 Meter Reading Expense	6,581,669	7,168,249	7,441,361	7,127,052	9,563,375	\$8,320,486
3	903 Cust Records & Collection	14,670,810	15,439,733	17,239,535	17,663,200	17,918,701	\$18,233,143
4	904 Uncollectible Accounts	8,406,244	3,642,666	5,085,904	5,205,538	3,555,170	\$5,739,658
5	905 Misc Cust Acct Expense	389,396	377,084	405,292	417,356	124,686	\$379,612
6	Total	33,073,493	29,802,239	34,153,327	35,282,178	32,062,336	\$36,197,375
7							
	Customer Service & Info Expense						
8	907 Supervision	967,318	1,293,118	878,667	429,900	138,616	\$827,445
9	908 Cust Assistance Expense	871,273	1,388,517	1,301,282	2,358,698	2,488,601	\$1,834,568
10	909 Info & Instructional Expense	302,597	329,063	199,651	996,352	1,248,551	\$666,900
11	910 Misc Cust Svc & Info Expense	141,635	95,307	94,643	3,238	1,429	\$75,658
12	Total	2,282,823	3,106,005	2,474,243	3,788,188	3,877,197	\$3,404,571
13							\$39,601,946
14							
	Distribution Expenses						
15	586 Meter Expenses	\$2,010,097	\$1,892,897	\$2,122,259	\$2,058,440	\$2,206,057	\$2,264,518
16	597 Meter Maintenance	\$1,190,462	\$1,237,234	\$1,348,150	\$1,669,096	\$1,560,945	\$1,538,444
17		\$3,200,559	\$3,130,131	\$3,470,409	\$3,727,536	\$3,767,002	\$3,802,962
18							
19							
20							
21	(1) Inflation Adjustment -	1.1444	1.1225	1.1011	1.0801	1.0595	

Source:  
Source: FERC Form 1 (State of Oregon) & Results of Operations

PacifiCorp  
Oregon Marginal Cost Study  
Account 903 Cust. Bill & Actg  
Weighting Factors

	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Residential	Small GS	Large GS	Industrial	Irrigation	Streetslighting	Total
June 2008 Total PacifiCorp Customers	1,461,432	197,965	29,582	666	23,458	31,136	1,744,240
<b>System customers -</b>							
<b>FERC Accounts</b>							
903.0							
(Weighted on Customers)	1.00	1.00	1.00	1.00	1.00	1.00	(Weighted on C
Weighting	1,461,432	197,965	29,582	666	23,458	31,136	1,744,240
% of Total	83.79%	11.35%	1.70%	0.04%	1.34%	1.79%	100.00%
Total \$	\$669,157	\$90,644	\$13,545	\$305	\$10,741	\$14,257	\$798,649
903.1							
Customer Records & Customer System Expense	1.00	1.00	1.00	1.00	1.00	1.00	(Weighted on C
(Weighted on Customers)	1,461,432	197,965	29,582	666	23,458	31,136	1,744,240
Weighting	83.79%	11.35%	1.70%	0.04%	1.34%	1.79%	100.00%
% of Total	\$3,745,860	\$507,412	\$75,823	\$1,708	\$60,127	\$79,807	\$ 4,470,735
Total \$							
903.2							
Customer Accounting-Billing	1.00	1.01	1.14	29.60	1.00	1.00	(Weighted on m
(Weighted on manual billing)	1,461,432	200,197	33,679	19,721	23,371	31,020	1,769,421
Weighting	82.59%	11.31%	1.90%	1.11%	1.32%	1.75%	100.00%
% of Total	\$7,669,828	\$1,050,666	\$176,754	\$103,500	\$122,653	\$162,799	\$ 9,286,200
Total \$							
903.3							
Customer Accounting-Collections	1.00	0.79	0.93	2.49	1.09	0.72	(Weighted on VI
(Weighted on Writeoffs)	1,461,432	157,295	27,592	1,656	25,592	22,333	1,695,900
Weighting	86.17%	9.28%	1.63%	0.10%	1.51%	1.32%	100.00%
% of Total	\$10,290,712	\$1,107,596	\$194,288	\$11,663	\$180,204	\$157,259	\$ 11,941,722
Total \$							
903.5							
Customer Acct - Requests	1.00	1.00	1.00	1.00	1.00	1.00	(Weighted on C
(Weighted on Customers)	1,461,432	197,965	29,582	666	23,458	31,136	1,744,240
Weighting	83.79%	11.35%	1.70%	0.04%	1.34%	1.79%	100.00%
% of Total	\$435,322	\$58,968	\$8,812	\$198	\$6,988	\$9,275	\$519,562
Total \$							
903.6							
Customer Acct - Common	1.00	1.00	1.00	1.00	1.00	1.00	(Weighted on C
(Weighted on Customers)	1,461,432	197,965	29,582	666	23,458	31,136	1,744,240
Weighting	83.79%	11.35%	1.70%	0.04%	1.34%	1.79%	100.00%
% of Total	\$13,954,906	\$1,890,323	\$282,471	\$6,363	\$223,997	\$297,313	\$16,655,373
Total \$							
<b>Total Acct. 903</b>							
Total 903 \$	\$36,765,784	\$4,705,609	\$751,693	\$123,737	\$604,709	\$720,710	\$43,672,242
Dollars Per Customer	\$25.16	\$23.77	\$25.41	\$185.70	\$25.78	\$23.15	
Weighting Factor for 903	1.00	0.94	1.01	7.38	1.02	0.92	



**AG Expenses**

PacifiCorp  
Oregon Marginal Cost Study  
Administrative & General Expense  
Loading Factor

Year	(A) Administrative and General Expenses (000)	(B) Electric Plant in Service (000)	(C) Admin. & General to Electric Plant In Service Loading Factor (A) / (B)
1998	\$338,402	\$11,784,334	2.87%
1999	\$209,710	\$12,110,787	1.73%
2000	\$100,360	\$11,910,796	0.84%
2001	\$180,629	\$12,289,187	1.47%
2002	\$277,395	\$12,690,449	2.19%
2003	\$251,357	\$13,208,159	1.90%
2004	\$244,893	\$13,688,398	1.79%
2005	\$236,709	\$14,335,797	1.65%
2006	\$238,645	\$15,317,103	1.56%
2007	\$180,356	\$16,417,338	1.10%

10 Year Average A&G to EPIIS Loading Factor

1.71%

Footnotes:

(A) FERC Form 1 Page 322-323 (2007)

(B) FERC Form 1 Page 206-207 (2007)





Charge 1

PacifiCorp  
Oregon Marginal Cost Study  
Calculation of Annual Charges

Line	Description	(A) 20 years - Generation	(B) 10 years - Generation	(C) 5 years - Generation	(D) System Transmission	(E) Distribution
1	Levelized Income Taxes *	NA	NA	NA	2.02%	2.04%
2	Levelized Property Tax *	NA	NA	NA	1.12%	1.12%
3	Total	NA	NA	NA	3.14%	3.16%
4						
5	Levelized Income & Property Taxes (per \$1,000 of Investment)	NA	NA	NA	\$31.40	\$31.60
6						
7	Expected Life	20	10	5	58	50
8						
9	Nominal Interest Rate *	8.53%	8.53%	8.53%	8.53%	8.53%
10						
11	Present Value: Income **	NA	NA	NA	\$364.97	\$364.32
12	Taxes & Property Taxes per \$1,000 of Investment				(PV of \$31.40 per year for 58 years at 8.53%)	(PV of \$31.60 per year for 50 years at 8.53%)
13						
14	Removal Cost Per \$1,000 Investment				\$204.38	\$463.24
15						
16	Present Value: Removal Cost at End of Useful Life				\$1.77	\$7.74
17					(PV of \$204.38 in 58 years at 8.53%)	(PV of \$463.24 in 50 years at 8.53%)
18						
19	Investment and Taxes w/o PVCD (Line 12 + Line 18 + \$1000)	\$1,000.00	\$1,000.00	\$1,000.00	\$1,366.74	\$1,372.06
20						
21	PVCD Factor	NA	NA	NA	0.019100	0.040968
22						
23	PVCD \$ (Line 22 x Line 25)	NA	NA	NA	\$26.10	\$56.21
24						
25	Total (Line 22 + Line 27)	\$1,000.00	\$1,000.00	\$1,000.00	\$1,392.84	\$1,428.27
26						
27	EOY Annual Charge ***	\$84.97	\$130.41	\$225.78	\$86.80	\$90.61
28						
29	Annual Economic Carrying Adm & Gen Expense Loading Factor	8.50%	13.04%	22.58%	8.68%	9.06%
30		0.00%	0.00%	0.00%	1.71%	1.71%
31						
32	Annual Econ Carrying + A&G Loading	8.50%	13.04%	22.58%	10.39%	10.77%
33						
34						
35						
36						

Footnotes:

From Financial Analysis -

\*\*  $PV = \text{Ln}(5) \times [1/r - (1/r)/(1+r)^a]$

\*\*\* The Annual Charge Formula:

$AC\% = \text{Ln}(11) \times k \times \{1/[1 - 1/(1+k)^a]\}/(1+k)$

Where:

k = real interest rate =  $(1 + r) / (1 + i) - 1$

i = inflation rate = 1.9%

a = expected investment life

r = nominal interest rate

Where:

$31.40 \times (1/0.0853 - (1/0.0853)/(1+0.0853)^{58})$  r = Nominal Interest Rate

$31.60 \times (1/0.0853 - (1/0.0853)/(1+0.0853)^{50})$  a = Expected Investment Life

Where:

$AC\% = \text{Ln}(11) \times k \times \{1/[1 - 1/(1+k)^a]\}/(1+k)$

k = real interest rate =  $(1 + r) / (1 + i) - 1$

i = inflation rate = 1.9%

a = expected investment life

**Charge 2**

PacifiCorp  
Oregon Marginal Cost Study  
Financial Inputs to the Economic Carrying Charge Calculation

(A) (B) (C) (D)

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	<u>Financial Inputs</u>	<u>Levelized</u>
1	Weighted Cost of Capital	
2	Borrowing Rate	8.53%
3	Inflation	1.95%
4		
5	Real Cost of Capital	
6	$(1+0.0853)/(1+0.0195)-1 =$	6.46%
	Income Taxes	2.02%
	Transmission Distribution	2.04%
	Property Taxes	1.12%
	Transmission Distribution	1.12%

**Source:**

Cost of Capital/Borrowing Rate: Revenue Requirement (OR Jurisdictional Allocation Model)  
Income & Property Taxes: Financial Analysis, Use of Facilities Charges 12/31/07 Basis (prepared 8/19/08)  
Inflation Rate 2007-2026, 2004 IRP, Appendix C, Table C.1

PacificCorp  
Oregon Marginal Cost Study  
Present Value of Cost of Dispersion Factor  
Iowa Curve R 3.0 & 58 Year Average Life  
Page 1 of 2

Real Cost of Capital = 6.46%

YEAR	PVCD $\frac{((A) \cdot (B)^{-1})}{(1+i)^t} / 100$	(A)	(B)	% RENEWED $\frac{((J) \cdot (B)^{-1}) - (J)}{B} \cdot 100$	(C)	(D)	DEM1 1.0646 *Year	(E)	NUM1/DEM1 (C) / (D)	(F)	NUM2	DEM2 1.0646 *58	(H)	NUM2/DEM2 (F) / (G)	(I)	INSTANCE (E) - (H)	(J)	(Given)
1	0.000145	0.000145	0.0159	1.59%	0.0159	1.064581	0.014900	0.014900	0.0159	0.0159	37.702878	37.702878	0.000421	0.014479	0.014479	100.0000	99.9841	100.0000
2	0.000416	0.000416	0.0317	3.17%	0.0317	1.133334	0.027992	0.027992	0.0317	0.0317	37.702878	37.702878	0.000841	0.027150	0.027150	99.9841	99.9524	99.9524
3	0.000978	0.000978	0.0408	4.08%	0.0408	1.206526	0.036294	0.036294	0.0408	0.0408	37.702878	37.702878	0.001683	0.025452	0.025452	99.9207	99.8799	99.8799
4	0.001308	0.001308	0.0469	4.69%	0.0469	1.284445	0.031786	0.031786	0.0469	0.0469	37.702878	37.702878	0.001244	0.030703	0.030703	99.8799	99.8330	99.8330
5	0.001618	0.001618	0.0469	4.69%	0.0469	1.367396	0.034296	0.034296	0.0469	0.0469	37.702878	37.702878	0.001244	0.033052	0.033052	99.8330	99.7861	99.7861
6	0.001989	0.001989	0.0616	6.16%	0.0616	1.459716	0.032216	0.032216	0.0616	0.0616	37.702878	37.702878	0.001634	0.030972	0.030972	99.7861	99.7244	99.7244
7	0.002353	0.002353	0.0679	6.79%	0.0679	1.549716	0.039763	0.039763	0.0679	0.0679	37.702878	37.702878	0.001802	0.038128	0.038128	99.7244	99.6565	99.6565
8	0.002762	0.002762	0.0679	6.79%	0.0679	1.648799	0.041175	0.041175	0.0679	0.0679	37.702878	37.702878	0.001802	0.039374	0.039374	99.6565	99.5886	99.5886
9	0.003218	0.003218	0.0887	8.87%	0.0887	1.756345	0.038677	0.038677	0.0887	0.0887	37.702878	37.702878	0.001802	0.038876	0.038876	99.5886	99.5207	99.5207
10	0.003671	0.003671	0.0952	9.52%	0.0952	1.869772	0.047887	0.047887	0.0952	0.0952	37.702878	37.702878	0.002380	0.045607	0.045607	99.5207	99.4528	99.4528
11	0.004095	0.004095	0.0952	9.52%	0.0952	1.990525	0.047813	0.047813	0.0952	0.0952	37.702878	37.702878	0.002524	0.045288	0.045288	99.4528	99.4037	99.4037
12	0.004623	0.004623	0.1268	12.68%	0.1268	2.119076	0.044912	0.044912	0.1268	0.1268	37.702878	37.702878	0.002524	0.042388	0.042388	99.4037	99.3085	99.3085
13	0.005131	0.005131	0.1303	13.03%	0.1303	2.255928	0.056220	0.056220	0.1303	0.1303	37.702878	37.702878	0.003364	0.052856	0.052856	99.3085	99.1817	99.1817
14	0.005607	0.005607	0.1303	13.03%	0.1303	2.401619	0.054274	0.054274	0.1303	0.1303	37.702878	37.702878	0.003457	0.050817	0.050817	99.1817	99.0513	99.0513
15	0.006077	0.006077	0.1745	17.45%	0.1745	2.566719	0.050981	0.050981	0.1745	0.1745	37.702878	37.702878	0.003457	0.047524	0.047524	99.0513	98.9210	98.9210
16	0.006201	0.006201	0.1745	17.45%	0.1745	2.721836	0.064105	0.064105	0.1745	0.1745	37.702878	37.702878	0.004628	0.059477	0.059477	98.9210	98.7465	98.7465
17	0.006757	0.006757	0.1799	17.99%	0.1799	2.897616	0.060216	0.060216	0.1799	0.1799	37.702878	37.702878	0.004628	0.055588	0.055588	98.7465	98.5720	98.5720
18	0.007293	0.007293	0.1799	17.99%	0.1799	3.084748	0.058329	0.058329	0.1799	0.1799	37.702878	37.702878	0.004772	0.053557	0.053557	98.5720	98.3921	98.3921
19	0.007929	0.007929	0.2290	22.90%	0.2290	3.283965	0.069722	0.069722	0.2290	0.2290	37.702878	37.702878	0.006073	0.063649	0.063649	98.3921	98.1631	98.1631
20	0.008524	0.008524	0.2290	22.90%	0.2290	3.496048	0.065493	0.065493	0.2290	0.2290	37.702878	37.702878	0.006073	0.059420	0.059420	98.1631	97.9342	97.9342
21	0.009110	0.009110	0.2421	24.21%	0.2421	3.721828	0.065059	0.065059	0.2421	0.2421	37.702878	37.702878	0.006422	0.058637	0.058637	97.9342	97.8920	97.8920
22	0.009776	0.009776	0.2948	29.48%	0.2948	3.962189	0.074410	0.074410	0.2948	0.2948	37.702878	37.702878	0.007820	0.065951	0.065951	97.8920	97.3972	97.3972
23	0.010397	0.010397	0.2948	29.48%	0.2948	4.218072	0.069896	0.069896	0.2948	0.2948	37.702878	37.702878	0.007820	0.062443	0.062443	97.3972	97.1024	97.1024
24	0.011021	0.011021	0.3183	31.83%	0.3183	4.490481	0.070866	0.070866	0.3183	0.3183	37.702878	37.702878	0.008443	0.062443	0.062443	97.1024	96.7841	96.7841
25	0.011703	0.011703	0.3731	37.31%	0.3731	4.780483	0.078047	0.078047	0.3731	0.3731	37.702878	37.702878	0.009896	0.068151	0.068151	96.7841	96.4110	96.4110
26	0.012337	0.012337	0.3731	37.31%	0.3731	5.089213	0.073313	0.073313	0.3731	0.3731	37.702878	37.702878	0.009896	0.063417	0.063417	96.4110	96.0379	96.0379
27	0.012984	0.012984	0.4098	40.98%	0.4098	5.417882	0.075637	0.075637	0.4098	0.4098	37.702878	37.702878	0.010869	0.064199	0.064199	96.0379	95.6281	95.6281
28	0.013667	0.013667	0.4648	46.48%	0.4648	5.767776	0.080580	0.080580	0.4648	0.4648	37.702878	37.702878	0.012329	0.062862	0.062862	95.6281	95.1632	95.1632
29	0.014301	0.014301	0.4648	46.48%	0.4648	6.140267	0.075702	0.075702	0.4648	0.4648	37.702878	37.702878	0.012329	0.063373	0.063373	95.1632	94.6984	94.6984
30	0.014856	0.014856	0.5179	51.79%	0.5179	6.536814	0.079233	0.079233	0.5179	0.5179	37.702878	37.702878	0.013737	0.065496	0.065496	94.6984	94.1805	94.1805
31	0.015625	0.015625	0.5710	57.10%	0.5710	6.988970	0.082057	0.082057	0.5710	0.5710	37.702878	37.702878	0.015146	0.066912	0.066912	94.1805	93.6094	93.6094
32	0.016244	0.016244	0.5710	57.10%	0.5710	7.408390	0.077079	0.077079	0.5710	0.5710	37.702878	37.702878	0.015146	0.061934	0.061934	93.6094	93.0384	93.0384
33	0.016890	0.016890	0.6445	64.45%	0.6445	7.898635	0.081716	0.081716	0.6445	0.6445	37.702878	37.702878	0.017094	0.064623	0.064623	93.0384	92.3939	92.3939
34	0.017532	0.017532	0.6934	69.34%	0.6934	8.396177	0.082591	0.082591	0.6934	0.6934	37.702878	37.702878	0.018392	0.064199	0.064199	92.3939	91.7005	91.7005
35	0.018124	0.018124	0.6934	69.34%	0.6934	8.938414	0.077581	0.077581	0.6934	0.6934	37.702878	37.702878	0.018392	0.059188	0.059188	91.7005	91.0070	91.0070
36	0.018746	0.018746	0.7817	78.17%	0.7817	9.515669	0.083199	0.083199	0.7817	0.7817	37.702878	37.702878	0.020998	0.062200	0.062200	91.0070	90.2153	90.2153
37	0.019348	0.019348	0.8338	83.38%	0.8338	10.130205	0.082308	0.082308	0.8338	0.8338	37.702878	37.702878	0.022115	0.060193	0.060193	90.2153	89.3816	89.3816
38	0.019900	0.019900	0.8338	83.38%	0.8338	10.784427	0.077315	0.077315	0.8338	0.8338	37.702878	37.702878	0.022115	0.055200	0.055200	89.3816	88.5478	88.5478
39	0.020484	0.020484	0.9634	96.34%	0.9634	11.480901	0.083917	0.083917	0.9634	0.9634	37.702878	37.702878	0.025554	0.058364	0.058364	88.5478	87.5843	87.5843
40	0.021034	0.021034	0.9959	99.59%	0.9959	12.222353	0.081479	0.081479	0.9959	0.9959	37.702878	37.702878	0.026413	0.055065	0.055065	87.5843	86.5884	86.5884
41	0.021536	0.021536	0.9959	99.59%	0.9959	13.011690	0.076536	0.076536	0.9959	0.9959	37.702878	37.702878	0.026413	0.050123	0.050123	86.5884	85.5926	85.5926
42	0.022067	0.022067	1.1628	116.28%	1.1628	13.852003	0.083947	0.083947	1.1628	1.1628	37.702878	37.702878	0.030842	0.053105	0.053105	85.5926	84.4298	84.4298
43	0.022555	0.022555	1.1814	118.14%	1.1814	14.746584	0.080112	0.080112	1.1814	1.1814	37.702878	37.702878	0.031334	0.048778	0.048778	84.4298	83.2484	83.2484
44	0.022984	0.022984	1.1814	118.14%	1.1814	15.696939	0.075252	0.075252	1.1814	1.1814	37.702878	37.702878	0.031334	0.043918	0.043918	83.2484	82.0670	82.0670
45	0.023456	0.023456	1.3928	139.28%	1.3928	16.712799	0.083335	0.083335	1.3928	1.3928	37.702878	37.702878	0.036940	0.046394	0.046394	82.0670	80.8742	80.8742
46	0.023871	0.023871	1.3928	139.28%	1.3928	17.792135	0.078279	0.078279	1.3928	1.3928	37.702878	37.702878	0.036940	0.041338	0.041338	80.8742	79.2815	79.2815
47	0.024243	0.024243	1.4163	141.63%	1.4163	18.941175	0.074776	0.074776	1.4163	1.4163	37.702878	37.702878	0.037516	0.037210	0.037210	79.2815	77.8651	77.8651
48	0.024619	0.024619	1.6286	162.86%	1.6286	20.164423	0.080767	0.080767	1.6286	1.6286	37.702878	37.702878	0.043196	0.037571	0.037571	77.8651	76.2365	76.2365
49	0.024946	0.024946	1.6286	162.86%	1.6286	21.466669	0.075867	0.075867	1.6286	1.6286	37.702878	37.702878	0.045196	0.032671	0.032671	76.2365	74.8079	74.8079
50	0.025235	0.025235	1.6795	167.95%	1.6795	22.853017	0.073492	0.073492	1.6795	1.6795	37.702878	37.702878	0.044546	0.028946	0.028946	74.8079	72.8284	72.8284
51	0.025510	0.025510	1.8831	188.31%	1.8831	24.328886	0.077402	0.077402	1.8831	1.8831	37.702878	37.702878	0.049946	0.027456	0.027456			

Charge 4

PacificCorp  
Oregon Marginal Cost Study  
Present Value of Cost of Dispersion Factor  
Iowa Curve R 3.0 & 58 Year Average Life  
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YEAR	(A) PVCD $\frac{(A)(Yr-1)}{+ (1)} / 100$	(B) % RENEWED $\frac{(J(Yr-1)-(J))}{* 100}$	(C) NUM1	(D) DEM1 1.0646 ^Year	(E) NUM1/DEM1	(F) NUM2	(G) DEM2 1.0646 ^58	(H) NUM2/DEM2	(I) INSTANCE (E) - (H)	(J) Iowa R 2.5 (Given)
61	0.026091	256.03%	2.5603	45.489495	0.056284	2.5603	37.702878	0.067908	-0.011624	48.3411
62	0.025937	261.70%	2.6170	48.427270	0.054041	2.6170	37.702878	0.069412	-0.015372	45.7241
63	0.025748	265.48%	2.6548	51.554771	0.051495	2.6548	37.702878	0.070414	-0.018919	43.0693
64	0.025528	265.48%	2.6548	54.884249	0.048371	2.6548	37.702878	0.070414	-0.022043	40.4144
65	0.025279	263.96%	2.6396	58.428751	0.045177	2.6396	37.702878	0.070011	-0.024834	37.7748
66	0.025004	263.31%	2.6331	62.202161	0.042331	2.6331	37.702878	0.069838	-0.027507	35.1417
67	0.024703	263.31%	2.6331	66.219263	0.039763	2.6331	37.702878	0.069838	-0.030075	32.5086
68	0.024393	251.34%	2.5134	70.495795	0.036553	2.5134	37.702878	0.066663	-0.031010	29.9952
69	0.024066	248.34%	2.4834	75.048511	0.033091	2.4834	37.702878	0.065869	-0.032778	27.5118
70	0.023718	248.34%	2.4834	79.895249	0.031084	2.4834	37.702878	0.065869	-0.034785	25.0283
71	0.023386	224.39%	2.2439	85.054995	0.026381	2.2439	37.702878	0.059514	-0.033133	22.7845
72	0.023043	221.72%	2.2172	90.547965	0.024487	2.2172	37.702878	0.058808	-0.034321	20.5672
73	0.022685	221.72%	2.2172	96.395679	0.023001	2.2172	37.702878	0.058808	-0.035807	18.3500
74	0.022371	187.10%	1.8710	102.621046	0.018232	1.8710	37.702878	0.049626	-0.031393	16.4790
75	0.022046	187.10%	1.8710	109.248456	0.017126	1.8710	37.702878	0.049626	-0.032499	14.6079
76	0.021718	183.31%	1.8331	116.303873	0.015761	1.8331	37.702878	0.048620	-0.032856	12.7748
77	0.021442	149.17%	1.4917	123.814939	0.012048	1.4917	37.702878	0.039565	-0.027517	11.2831
78	0.021160	149.17%	1.4917	131.811080	0.011317	1.4917	37.702878	0.039565	-0.028248	9.7914
79	0.020885	141.86%	1.4186	140.323623	0.010109	1.4186	37.702878	0.037624	-0.027515	8.3728
80	0.020661	112.59%	1.1259	149.385918	0.007537	1.1259	37.702878	0.029861	-0.022325	7.2470
81	0.020434	112.59%	1.1259	159.033469	0.007079	1.1259	37.702878	0.029861	-0.022782	6.1211
82	0.020222	102.87%	1.0287	169.304072	0.006076	1.0287	37.702878	0.027285	-0.021209	5.0924
83	0.020053	80.21%	0.8021	180.237964	0.004450	0.8021	37.702878	0.021273	-0.016823	4.2903
84	0.019882	80.21%	0.8021	191.877983	0.004180	0.8021	37.702878	0.021273	-0.017093	3.4882
85	0.019732	69.35%	0.6935	204.269730	0.003395	0.6935	37.702878	0.018394	-0.014999	2.7947
86	0.019616	53.07%	0.5307	217.461754	0.002440	0.5307	37.702878	0.014076	-0.011635	2.2640
87	0.019498	53.07%	0.5307	231.505736	0.002292	0.5307	37.702878	0.014076	-0.011783	1.7333
88	0.019404	42.14%	0.4214	246.456689	0.001710	0.4214	37.702878	0.011176	-0.009467	1.3120
89	0.019333	31.21%	0.3121	262.373216	0.001189	0.3121	37.702878	0.008277	-0.007088	0.9999
90	0.019261	31.21%	0.3121	279.317643	0.001117	0.3121	37.702878	0.008277	-0.007160	0.6878
91	0.019212	21.32%	0.2132	297.356365	0.000717	0.2132	37.702878	0.005654	-0.004937	0.4747
92	0.019177	14.72%	0.1472	316.560053	0.000465	0.1472	37.702878	0.003905	-0.003440	0.3274
93	0.019143	14.72%	0.1472	337.003942	0.000437	0.1472	37.702878	0.003905	-0.003468	0.1802
94	0.019125	7.46%	0.0746	358.768126	0.000208	0.0746	37.702878	0.001978	-0.001770	0.1056
95	0.019115	4.34%	0.0434	381.937871	0.000114	0.0434	37.702878	0.001152	-0.001039	0.0621
96	0.019104	4.34%	0.0434	406.603950	0.000107	0.0434	37.702878	0.001152	-0.001046	0.0187
97	0.019101	1.14%	0.0114	432.862999	0.000026	0.0114	37.702878	0.000304	-0.000277	0.0072
98	0.019100	0.34%	0.0034	460.817894	0.000007	0.0034	37.702878	0.000091	-0.000084	0.0038
99	0.019100	0.34%	0.0034	490.578155	0.000007	0.0034	37.702878	0.000091	-0.000084	0.0003
100	0.019100	0.03%	0.0003	522.260375	0.000001	0.0003	37.702878	0.000009	-0.000008	0.0000
101	0.019100	0.00%	0.0000	555.988677	0.000000	0.0000	37.702878	0.000000	0.000000	0.0000
102	0.019100	0.00%	0.0000	591.895200	0.000000	0.0000	37.702878	0.000000	0.000000	0.0000
103	0.019100	0.00%	0.0000	630.120616	0.000000	0.0000	37.702878	0.000000	0.000000	0.0000
104	0.019100	0.00%	0.0000	670.814682	0.000000	0.0000	37.702878	0.000000	0.000000	0.0000

PacificCorp  
Oregon Marginal Cost Study  
Present Value of Cost of Dispersion Factor  
Iowa Curve R.2.0 & 50 Year Average Life

Real Cost of Capital = 6.46%

YEAR	PVCD (A)	(B) ((A)(yr-1) + (I)) / 100	(C) % RENEWED	NUM1 (B)	DEM1 (D) 1.0646 ^Year	NUM1/DEM1 (E) (C) / (D)	NUM2 (F) (B)	DEM2 (G) 1.0646 ^50	NUM2/DEM2 (H) (F) / (G)	INSTANCE (I) - (H)	(J) (Given)
1	0.000910	10.16%	0.1016	0.1016	1.064581	0.095437	0.1016	22.853017	0.004446	0.090991	100.0000
2	0.002614	20.32%	0.2032	0.2032	1.133334	0.179294	0.2032	22.853017	0.008892	0.170402	99.8984
3	0.004209	30.48%	0.3032	0.3032	1.206526	0.168417	0.2032	22.853017	0.008892	0.170402	99.6952
4	0.005967	23.92%	0.2392	0.2392	1.284445	0.186228	0.2392	22.853017	0.010467	0.15761	99.4920
5	0.007611	23.92%	0.2392	0.2392	1.367396	0.174931	0.2392	22.853017	0.010467	0.15761	99.2528
6	0.009284	26.00%	0.2600	0.2600	1.455705	0.178608	0.2600	22.853017	0.011377	0.162137	99.0136
7	0.010973	28.08%	0.2808	0.2808	1.549716	0.181194	0.2808	22.853017	0.012287	0.166907	98.7536
8	0.012552	28.08%	0.2808	0.2808	1.649799	0.170203	0.2808	22.853017	0.012287	0.157915	98.4728
9	0.014272	32.72%	0.3272	0.3272	1.756345	0.186296	0.3272	22.853017	0.014318	0.171978	98.1920
10	0.015879	32.72%	0.3272	0.3272	1.869772	0.174995	0.3272	22.853017	0.014318	0.160677	97.9178
11	0.017499	35.34%	0.3534	0.3534	1.990525	0.177541	0.3534	22.853017	0.015464	0.162077	97.5376
12	0.019125	37.96%	0.3796	0.3796	2.119076	0.179135	0.3796	22.853017	0.016610	0.162524	97.1842
13	0.020641	37.96%	0.3796	0.3796	2.259528	0.168268	0.3796	22.853017	0.016610	0.151657	96.8046
14	0.022275	43.84%	0.4384	0.4384	2.401619	0.182543	0.4384	22.853017	0.019183	0.163360	96.4250
15	0.023798	43.84%	0.4384	0.4384	2.556719	0.171470	0.4384	22.853017	0.019183	0.152286	96.0464
16	0.025321	47.08%	0.4708	0.4708	2.718186	0.172971	0.4708	22.853017	0.020601	0.152370	95.5482
17	0.026838	50.32%	0.5032	0.5032	2.897616	0.173660	0.5032	22.853017	0.022019	0.151641	95.0774
18	0.028249	50.32%	0.5032	0.5032	3.084748	0.163125	0.5032	22.853017	0.022019	0.141106	94.5742
19	0.029751	57.60%	0.5760	0.5760	3.283965	0.175398	0.5760	22.853017	0.025205	0.151193	94.0710
20	0.031146	57.60%	0.5760	0.5760	3.496048	0.164757	0.5760	22.853017	0.025205	0.141106	93.4950
21	0.032532	61.62%	0.6162	0.6162	3.721828	0.165564	0.6162	22.853017	0.026964	0.139553	92.9190
22	0.033902	65.64%	0.6564	0.6564	3.962189	0.165666	0.6564	22.853017	0.028723	0.138600	92.3028
23	0.035171	65.64%	0.6564	0.6564	4.218072	0.152616	0.6564	22.853017	0.028723	0.136943	91.6464
24	0.036504	74.52%	0.7452	0.7452	4.490481	0.165951	0.7452	22.853017	0.032608	0.133343	90.2448
25	0.037737	74.52%	0.7452	0.7452	4.780483	0.155684	0.7452	22.853017	0.032608	0.123275	89.4996
26	0.038949	79.40%	0.7940	0.7940	5.089213	0.156016	0.7940	22.853017	0.034744	0.121272	88.7056
27	0.040136	84.28%	0.8428	0.8428	5.417882	0.155559	0.8428	22.853017	0.036879	0.118680	87.8628
28	0.041229	84.28%	0.8428	0.8428	5.767776	0.146122	0.8428	22.853017	0.036879	0.109243	87.0200
29	0.042359	94.92%	0.9492	0.9492	6.140267	0.154586	0.9492	22.853017	0.041535	0.13051	86.0708
30	0.043396	94.92%	0.9492	0.9492	6.536814	0.145208	0.9492	22.853017	0.041535	0.103673	85.1216
31	0.044402	100.70%	1.0070	1.0070	6.958970	0.144729	1.0070	22.853017	0.040464	0.100641	84.1146
32	0.045374	106.48%	1.0648	1.0648	7.408390	0.143725	1.0648	22.853017	0.046593	0.097136	83.0498
33	0.046258	106.48%	1.0648	1.0648	7.886835	0.135010	1.0648	22.853017	0.046593	0.088416	81.9650
34	0.047154	118.96%	1.1896	1.1896	8.396177	0.141684	1.1896	22.853017	0.052054	0.086629	80.7954
35	0.047965	118.96%	1.1896	1.1896	8.938414	0.133088	1.1896	22.853017	0.052054	0.081034	79.6058
36	0.048735	125.56%	1.2556	1.2556	9.515669	0.131951	1.2556	22.853017	0.054942	0.077008	78.3502
37	0.049461	132.16%	1.3216	1.3216	10.130205	0.130461	1.3216	22.853017	0.057830	0.072631	77.0286
38	0.050108	132.16%	1.3216	1.3216	10.784427	0.122547	1.3216	22.853017	0.057830	0.064717	75.7070
39	0.050741	146.00%	1.4600	1.4600	11.480901	0.127168	1.4600	22.853017	0.063887	0.063281	74.2470
40	0.051297	146.00%	1.4600	1.4600	12.222353	0.119453	1.4600	22.853017	0.063887	0.055567	72.7870
41	0.051803	153.06%	1.5306	1.5306	13.011690	0.117633	1.5306	22.853017	0.068976	0.050657	71.2564
42	0.052258	160.12%	1.6012	1.6012	13.852003	0.115593	1.6012	22.853017	0.070065	0.045528	69.6552
43	0.052644	160.12%	1.6012	1.6012	14.746584	0.105581	1.6012	22.853017	0.070065	0.036516	68.0540
44	0.052991	174.16%	1.7416	1.7416	15.698939	0.110937	1.7416	22.853017	0.076209	0.034729	66.3124
45	0.053271	174.16%	1.7416	1.7416	16.712799	0.104208	1.7416	22.853017	0.076209	0.027999	64.5708
46	0.053496	180.84%	1.8084	1.8084	17.792135	0.101640	1.8084	22.853017	0.079132	0.022509	62.7624
47	0.053665	187.52%	1.8752	1.8752	18.941175	0.099001	1.8752	22.853017	0.082055	0.016946	60.8872
48	0.053775	187.52%	1.8752	1.8752	20.164423	0.092995	1.8752	22.853017	0.082055	0.010941	59.0120
49	0.053831	199.48%	1.9948	1.9948	21.466669	0.092925	1.9948	22.853017	0.087288	0.005637	57.0172
50	0.053831	199.48%	1.9948	1.9948	22.853017	0.087288	1.9948	22.853017	0.087288	0.000000	55.0224
51	0.053777	204.36%	2.0436	2.0436	24.328996	0.083999	2.0436	22.853017	0.089424	-0.005425	52.9788
52	0.053669	209.24%	2.0924	2.0924	25.900090	0.080787	2.0924	22.853017	0.091559	-0.010772	50.8664
53	0.053512	209.24%	2.0924	2.0924	27.572754	0.075687	2.0924	22.853017	0.091559	-0.015673	48.7940
54	0.053303	215.92%	2.1592	2.1592	29.353441	0.073559	2.1592	22.853017	0.094482	-0.020923	46.6348
55	0.053049	215.92%	2.1592	2.1592	31.249127	0.069096	2.1592	22.853017	0.094482	-0.025386	44.4756

PacificCorp  
Oregon Marginal Cost Study  
Present Value of Cost of Dispersion Factor  
Iowa Curve R.2.0 & 50 Year Average Life

Real Cost of Capital = 6.46%

YEAR	PVCD (A)	% RENEWED (B)	NUM1 (C)	DEM1 (D)	NUM1/DEM1 (E)	NUM2 (F)	DEM2 (G)	NUM2/DEM2 (H)	INSTANCE (I)	Iowa R.1.5 (J)
	$\frac{((A) \cdot (1+r)^{-1}) - ((J) \cdot (1+r)^{-1})}{r}$	$\frac{NUM1}{(A)}$	(B)	1.0646	$\frac{NUM1}{DEM1}$	(F)	1.0646	$\frac{NUM2}{DEM2}$	(I) - (H)	(Given)
56	0.052752	217.28%	2.1728	33.267239	0.065314	2.1728	22.853017	0.095077	-0.029764	42.3028
57	0.052412	218.64%	2.1864	35.415684	0.061735	2.1864	22.853017	0.095672	-0.033937	40.1164
58	0.052036	218.64%	2.1864	37.702878	0.057900	2.1864	22.853017	0.095672	-0.037682	37.9300
59	0.051627	216.76%	2.1676	40.137782	0.054004	2.1676	22.853017	0.094850	-0.040846	35.7624
60	0.051186	216.76%	2.1676	42.729936	0.050728	2.1676	22.853017	0.094850	-0.044122	33.5948
61	0.050721	213.28%	2.1328	45.489495	0.046886	2.1328	22.853017	0.093327	-0.046441	31.4620
62	0.050237	209.80%	2.0980	48.427270	0.043323	2.0980	22.853017	0.091804	-0.048481	29.3640
63	0.049726	209.80%	2.0980	51.554771	0.040695	2.0980	22.853017	0.091804	-0.051109	27.2660
64	0.049220	197.88%	1.9788	54.884249	0.036054	1.9788	22.853017	0.086588	-0.050534	25.2872
65	0.048693	197.88%	1.9788	58.428751	0.033667	1.9788	22.853017	0.086588	-0.052721	23.3084
66	0.048168	189.68%	1.8968	62.202161	0.030494	1.8968	22.853017	0.083000	-0.052506	21.4116
67	0.047648	181.48%	1.8148	66.219263	0.027406	1.8148	22.853017	0.079412	-0.052006	19.5968
68	0.047111	181.48%	1.8148	70.495795	0.025743	1.8148	22.853017	0.079412	-0.053668	17.7820
69	0.046619	161.60%	1.6160	75.048511	0.021533	1.6160	22.853017	0.070713	-0.049180	16.1660
70	0.046115	161.60%	1.6160	79.895249	0.020226	1.6160	22.853017	0.070713	-0.050486	14.5500
71	0.045633	150.60%	1.5060	85.054995	0.017706	1.5060	22.853017	0.065899	-0.048193	13.0440
72	0.045176	139.60%	1.3960	90.547965	0.015417	1.3960	22.853017	0.061086	-0.045669	11.6480
73	0.044710	139.60%	1.3960	96.395679	0.014482	1.3960	22.853017	0.061086	-0.046604	10.2520
74	0.044312	116.92%	1.1692	102.621046	0.011393	1.1692	22.853017	0.051162	-0.039768	9.0828
75	0.043908	116.92%	1.1692	109.248456	0.010702	1.1692	22.853017	0.051162	-0.040460	7.9136
76	0.043536	105.82%	1.0582	116.303873	0.009099	1.0582	22.853017	0.046305	-0.037206	6.8554
77	0.043198	94.72%	0.9472	123.814939	0.007850	0.9472	22.853017	0.041447	-0.033797	5.9082
78	0.042855	94.72%	0.9472	131.811080	0.007186	0.9472	22.853017	0.041447	-0.034261	4.9610
79	0.042584	73.88%	0.7388	140.323623	0.005265	0.7388	22.853017	0.032328	-0.027063	4.2222
80	0.042311	73.88%	0.7388	149.385918	0.004946	0.7388	22.853017	0.032328	-0.027383	3.4834
81	0.042070	64.24%	0.6424	159.033469	0.004039	0.6424	22.853017	0.028110	-0.024071	2.8410
82	0.041863	54.60%	0.5460	169.304072	0.003225	0.5460	22.853017	0.023892	-0.020667	2.2950
83	0.041655	54.60%	0.5460	180.237964	0.003029	0.5460	22.853017	0.023892	-0.020862	1.7490
84	0.041512	37.08%	0.3708	191.877983	0.001932	0.3708	22.853017	0.016225	-0.014293	1.3782
85	0.041367	37.08%	0.3708	204.269730	0.001815	0.3708	22.853017	0.016225	-0.014410	1.0074
86	0.041252	29.38%	0.2938	217.461754	0.001351	0.2938	22.853017	0.012856	-0.011505	0.7136
87	0.041167	21.68%	0.2168	231.505736	0.000936	0.2168	22.853017	0.009487	-0.009850	0.4968
88	0.041081	21.68%	0.2168	246.456699	0.000880	0.2168	22.853017	0.009487	-0.008607	0.2800
89	0.041043	9.36%	0.0936	262.373216	0.000357	0.0936	22.853017	0.004096	-0.003739	0.1864
90	0.041006	9.36%	0.0936	279.317643	0.000335	0.0936	22.853017	0.004096	-0.003761	0.0928
91	0.040983	5.60%	0.0560	297.356365	0.000188	0.0560	22.853017	0.002450	-0.002262	0.0368
92	0.040976	1.84%	0.0184	316.560053	0.000058	0.0184	22.853017	0.000805	-0.000747	0.0184
93	0.040968	1.84%	0.0184	337.003942	0.000055	0.0184	22.853017	0.000805	-0.000751	0.0000
94	0.040968	0.00%	0.0000	358.768126	0.000000	0.0000	22.853017	0.000000	0.000000	0.0000
			99.9816	50.9667						

CHARGE 6

PACIFICORP  
Remaining Life Depreciation Rates

[1] Account Number	[2] Description	[3] 12/31/2006 Balance	[4] IOWA CURVE	[5] Average Life Yrs	[6] NET SALVAGE Percent %	[7] NET SALVAGE Amount \$
<b>TRANSMISSION PLANT</b>						
350.20	Land Rights	61,181,203	R5	70.00	0.00%	-
352.00	Structures & Improvements	55,260,234	S1	75.00	-1.00%	(552,602)
353.00	Station Equipment	907,682,638	R1.5	58.00	-4.00%	(36,307,306)
353.70	Supervisory Equipment	55,509,184	R2	25.00	0.00%	-
354.00	Towers & Fixtures	380,678,705	R5	65.00	-7.00%	(26,647,509)
355.00	Poles & Fixtures	508,938,637	R2.5	52.00	-42.00%	(213,754,228)
356.00	OH Conductors & Devices	630,352,557	R4	60.00	-42.00%	(264,748,074)
356.20	Clearing	30,355,853	S6	65.00	0.00%	-
357.00	UG Conduit	3,277,188	R2	60.00	0.00%	-
358.00	UG Conductors & Devices	7,274,658	R2	60.00	0.00%	-
359.00	Roads & Trails	11,494,522	R5	70.00	0.00%	-
Total Transmission Plant		2,652,005,379		58.41	-20.44%	(542,009,719)
				<b>Use 58 Years</b>		

58

[1] Account Number	[2] Description	[3] 12/31/2006 Balance	[4] IOWA CURVE	[5] Average Life Yrs	[6] NET SALVAGE Percent %	[7] NET SALVAGE Amount \$
<b>TRANSMISSION PLANT excludes land accounts</b>						
352.00	Structures & Improvements	55,260,234	-	2.13%	-	-
353.00	Station Equipment	907,682,638	1.50	35.03%	0.5255	-
353.70	Supervisory Equipment	55,509,184	2.00	2.14%	0.0429	-
354.00	Towers & Fixtures	380,678,705	5.00	14.69%	0.7347	-
355.00	Poles & Fixtures	508,938,637	2.50	19.64%	0.4911	-
356.00	OH Conductors & Devices	630,352,557	4.00	24.33%	0.9732	-
356.20	Clearing	30,355,853	-	1.17%	-	-
357.00	UG Conduit	3,277,188	2.00	0.13%	0.0025	-
358.00	UG Conductors & Devices	7,274,658	2.00	0.28%	0.0056	-
359.00	Roads & Trails	11,494,522	5.00	0.44%	0.0222	-
Total Transmission Plant		2,590,824,176		100.00%	2.7977	Use R 3

PACIFICORP  
Remaining Life Depreciation Rates

[1] Account Number	[2] Description	[3] 12/31/2006 Balance	[4] IOWA CURVE	[5] Average Life Yrs	[6] NET SALVAGE Percent %	[7] NET SALVAGE Amount \$
<b>DISTRIBUTION PLANT (OREGON)</b>						
360.20	Land Rights	3,556,253	R4	53.00	0.00%	-
361.00	Structures & Improvements	12,345,312	R1.5	65.00	-5.00%	(617,266)
362.00	Station Equipment	160,587,683	R1	52.00	-10.00%	(16,058,768)
362.70	Supervisory & Alarm Equipment	2,779,659	R2.5	23.00	0.00%	-
364.00	Poles, Towers & Fixtures	282,793,465	R2	49.00	-100.00%	(282,793,465)
365.00	OH Conductors & Devices	210,301,551	R1.5	58.00	-80.00%	(168,241,241)
366.00	UG Conduit	75,474,348	R2.5	60.00	-60.00%	(45,284,609)
367.00	UG Conductors & Devices	133,175,353	R2.5	58.00	-45.00%	(59,928,909)
368.00	Line Transformers	340,095,762	R1.5	40.00	-20.00%	(68,019,152)
369.10	Overhead Services	60,741,141	R2	65.00	-25.00%	(15,185,285)
369.20	Underground Services	122,060,821	R4	55.00	-20.00%	(24,412,164)
370.00	Meters	58,792,161	R2.5	26.00	-2.00%	(1,175,843)
371.00	I.O.C.P.	2,433,995	S1	25.00	-40.00%	(973,598)
373.00	Street Lighting & Signal Systems	19,600,663	R1	40.00	-26.00%	(5,096,172)
Total OREGON Distribution Plant		1,484,738,167		50.08	-46.32%	(687,786,473)
				<b>Use 50 years</b>		

50

[1] Account Number	[2] Description	[3] 12/31/2006 Balance	[4] IOWA CURVE	[5] Average Life Yrs	[6] NET SALVAGE Percent %	[7] NET SALVAGE Amount \$
<b>DISTRIBUTION PLANT excludes land accounts (OREGON)</b>						
361.00	Structures & Improvements	12,345,312	1.5	0.83%	0.01	-
362.00	Station Equipment	160,587,683	1	10.84%	0.11	-
362.70	Supervisory & Alarm Equipment	2,779,659	2.5	0.19%	0.00	-
364.00	Poles, Towers & Fixtures	282,793,465	2	19.09%	0.38	-
365.00	OH Conductors & Devices	210,301,551	1.5	14.20%	0.21	-
366.00	UG Conduit	75,474,348	2.5	5.10%	0.13	-
367.00	UG Conductors & Devices	133,175,353	2.5	8.99%	0.22	-
368.00	Line Transformers	340,095,762	1.5	22.96%	0.34	-
369.10	Overhead Services	60,741,141	2	4.10%	0.08	-
369.20	Underground Services	122,060,821	4	8.24%	0.33	-
370.00	Meters	58,792,161	2.5	3.97%	0.10	-
371.00	I.O.C.P.	2,433,995	0	0.16%	0.00	-
373.00	Street Lighting & Signal Systems	19,600,663	1	1.32%	0.01	-
Total OREGON Distribution Plant		1,481,181,914		100.00%	1.94	Use R 2

Curves:  
R=positive  
L=negative  
S=0  
  
R means right of the standard  
L means left of the standard  
S is at the standard





**Losses**

PacifiCorp  
Oregon Marginal Cost Study  
Energy Loss Factors

Line	(A) Voltage Level	(B) Energy Factor	(C) Energy Loss Percent	(D) Demand Factor	(E) Demand Loss Percent
1	Transmission Line				
2	( >= 69 kV )	1.03605	3.60%	1.04975	4.98%
3					
4					
5					
6	Primary Line				
7	( 2.4 kV thru 34.5 kV )	1.05771	5.77%	1.08191	8.19%
8					
9					
10					
11	Secondary Distribution				
12	( <= 600 Volts )	1.09180	9.18%	1.11306	11.31%



Cust Data 1

PacifiCorp  
Oregon Marginal Cost Study  
Customers and MWh's  
12 Months Ended June 30, 2008 - Actual

Line	Description	(A) Del. Volt	(B) Average Customers	(C) % Total Class	(D) Annual MWh's	(E) % Total Class	(F) Average Billing kW	(G) % Total Class
1	Res - Schedule 4	(sec)	469,380	100.0%	5,546,125	100.0%	3,585,565	100.0%
2								
3	GS - Schedule 23							
4	0-15 kW	(sec)	65,352	87.3%	660,613	57.5%	301,351	68.1%
5	15+ kW	(sec)	9,474	12.7%	487,926	42.5%	141,484	31.9%
6	Sec Subtotal		74,826	100.0%	1,148,539	100.0%	442,835	100.0%
7	Primary	(pri)	34		1,278		399	
8	Total		74,860		1,149,817		443,234	
9								
10	GS - Schedule 28							
11	0-50 kW	(sec)	4,459	44.7%	441,213	21.3%	108,871	5.2%
12	51-100 kW	(sec)	3,500	35.1%	686,792	33.2%	158,141	7.6%
13	> 101kW	(sec)	2,020	20.2%	942,085	45.5%	199,971	9.6%
14	Sec Subtotal		9,979	100.0%	2,070,090	100.0%	2,080,071	22.5%
15	Primary	(pri)	50		18,798		3,848	
16	Total		10,029		2,088,888		2,083,919	
17								
18	GS - Schedule 30							
19	0-300 kW	(sec)	240	28.7%	210,232	16.1%	41,138	17.5%
20	301+ kW	(sec)	597	71.3%	1,099,384	83.9%	193,793	82.5%
21	Sec Subtotal		837	100.0%	1,309,615	100.0%	234,931	100.0%
22	Primary	(pri)	55		96,013		16,855	
23	Total		892		1,405,628		251,786	
24								
25	LPS - Schedule 48T							
26	1 - 4 MW	(sec)	123	98.4%	649,403	91.6%	143,412	88.9%
27	> 4 MW	(sec)	2	1.6%	59,339	8.4%	17,994	11.1%
28	Sec Subtotal		125	100.0%	708,743	100.0%	161,406	100.0%
29	1 - 4 MW	(pri)	57	62.6%	459,309	26.1%	91,794	28.0%
30	> 4 MW	(pri)	34	37.4%	1,301,457	73.9%	236,113	72.0%
31	Pri Subtotal		91	100.0%	1,760,766	100.0%	327,907	100.0%
32	Trans	(trn)	2		454,296		68,934	
33	Total		218		2,923,804		558,246	
34								
35	Irrigation - Schedule 41 (Average)	(sec)	2,850	100.0%	130,845	100.0%	97,809	100.0%
36	Irrigation - Schedule 33* (Average)	(sec)	802	100.0%	104,533	100.0%	78,140	100.0%
37	Irrigation - Schedule 41 (Annual)	(sec)	6,142					
38	Irrigation - Schedule 33* (Annual)	(sec)	2,187					

Source: Pricing Dept.  
Columns B & D - PacifiCorp, Pricing Department

Cust Data 2

PacifiCorp  
Oregon Marginal Cost Study  
Customers and MWh's  
12 Months Ended December 2010 - Normalized

Line	Description	(A) Del. Volt	(B) Average Customers	(C) % Total Class	(D) Annual MWh's	(E) % Total Class	(F) Average Billing kW	(G) % Total Class
1	Res - Schedule 4	(sec)	478,485	100.0%	5,435,846	100.0%	3,585,565	100.0%
2								
3	GS - Schedule 23							
4	0-15 kW	(sec)	64,649	87.3%	582,532	57.5%	301,351	68.1%
5	15+ kW	(sec)	9,372	12.7%	430,256	42.5%	141,484	31.9%
6	Sec Subtotal		74,021	100.0%	1,012,789	100.0%	442,835	100.0%
7	Primary	(pri)	34		1,152		399	
8			74,055		1,013,940		443,234	
9	Total							
10	GS - Schedule 28							
11	0-50 kW	(sec)	4,491	44.7%	431,990	21.3%	108,871	5.2%
12	51-100 kW	(sec)	3,525	35.1%	672,435	33.2%	158,141	7.6%
13	> 101kW	(sec)	2,034	20.2%	922,391	45.5%	199,971	9.6%
14	Sec Subtotal		10,050	100.0%	2,026,816	100.0%	2,036,868	22.5%
15	Primary	(pri)	50		18,249		3,848	
16			10,100		2,045,065		2,040,716	
17	Total							
18	GS - Schedule 30							
19	0-300 kW	(sec)	230	28.7%	206,234	16.1%	41,138	17.5%
20	301+ kW	(sec)	572	71.3%	1,078,480	83.9%	193,793	82.5%
21	Sec Subtotal		802	100.0%	1,284,715	100.0%	234,931	100.0%
22	Primary	(pri)	52		93,931		16,855	
23			854		1,378,646		251,786	
24	Total							
25	LPS - Schedule 48T							
26	1 - 4 MW	(sec)	121	98.4%	594,746	91.6%	143,412	88.9%
27	> 4 MW	(sec)	2	1.6%	54,345	8.4%	17,994	11.1%
28	Sec Subtotal		123	100.0%	649,091	100.0%	161,406	100.0%
29	1 - 4 MW	(pri)	56	62.6%	414,743	26.1%	91,794	28.0%
30	> 4 MW	(pri)	34	37.4%	1,175,179	73.9%	236,113	72.0%
31	Pri Subtotal		90	100.0%	1,589,921	100.0%	327,907	100.0%
32	Trans	(trn)	2		404,889		68,934	
33			215		2,643,901		558,246	
34	Total							
35	Irrigation - Schedule 41 (Average)	(sec)	2,834	100.0%	136,792	100.0%	97,809	100.0%
36	Irrigation - Schedule 33* (Average)	(sec)	756	100.0%	118,046	100.0%	78,140	100.0%
37								
38	Irrigation - Schedule 41 (Annual)	(sec)	6,108	100.0%	136,792	100.0%	97,809	100.0%
39	Irrigation - Schedule 33* (Annual)	(sec)	2,062	100.0%	118,046	100.0%	78,140	100.0%
40								

Source:  
Columns B & D - PacifiCorp, Pricing Department

\* Schedule 33 Cost of Service results are provided for informational purposes only.

Cust Data 3

PacifiCorp  
Oregon Marginal Cost Study  
Customer Class Split between  
Three Phase / Single Phase

Line	Customer Class	Voltage Level	(A)	(B)	(C)	(D)	(E)
			Three Phase Customers	Three Phase Customers	Total Customers	Three Phase Customers (A) / (B)	Single Phase Customers 100% - (C)
1	Res - Schedule 4	(sec)	-	-	469,380	0.0000%	100.0000%
2							
3	GS - Schedule 23	(sec)	10,847	10,847	65,352	16.5978%	83.4022%
4	0-15 KW	(sec)	5,439	5,439	9,474	57.4098%	42.5902%
5	15+ KW	(sec)	16,286	16,286	74,826	100.0000%	0.0000%
6							
7	Sec Subtotal	(pri)	34	34	34	100.0000%	0.0000%
8	Primary	(pri)	16,320	16,320	74,860	21.8007%	78.1993%
9	Total						
10	GS - Schedule 28	(sec)	3,161	3,161	4,459	70.8903%	29.1097%
11	0-50 KW	(sec)	3,030	3,030	3,500	86.5714%	13.4286%
12	51-100 KW	(sec)	1,966	1,966	2,020	97.3267%	2.6733%
13	> 101KW	(sec)	8,157	8,157	9,979	100.0000%	0.0000%
14							
15	Sec Subtotal	(pri)	50	50	50	100.0000%	0.0000%
16	Primary	(pri)	8,207	8,207	10,029	81.8327%	18.1673%
17	Total						
18	GS - Schedule 30	(sec)	239	239	240	99.5833%	0.4167%
19	0-300 KW	(sec)	596	596	597	99.8325%	0.1675%
20	301+ KW	(sec)	835	835	837	100.0000%	0.0000%
21							
22	Sec Subtotal	(pri)	55	55	55	100.0000%	0.0000%
23	Primary	(pri)	890	890	892	99.7758%	0.2242%
24	Total						
25	LPS - Schedule 48T	(sec)	123	123	123	100.0000%	0.0000%
26	1 - 4 MW	(pri)	57	57	57	100.0000%	0.0000%
27	1 - 4 MW	(sec)	2	2	2	100.0000%	0.0000%
28	> 4 MW	(pri)	34	34	34	100.0000%	0.0000%
29	> 4 MW	(trn)	2	2	2	100.0000%	0.0000%
30	Trans	(trn)	218	218	218	100.0000%	0.0000%
31	Total						
32	Irrigation - Schedule 41 (Annual)	(sec)	4,935	4,935	6,143	80.3353%	19.6647%
33							
34	Irrigation - Schedule 33* (Annual)	(sec)	2,205	2,205	2,276	96.8805%	3.1195%
35							
36							
37	TOTAL		32,775	32,775	563,798	5.8133%	94.1867%

\*\*Source: Meters worksheet  
\* Schedule 33 Cost of Service results are provided for informational purposes only.

**Cust Data 4**

PacifiCorp  
Oregon Marginal Cost Study  
Customer Loads  
12 Months Ended December 2010

	(A)	(B)	(C)	(D)	(E)
Line	Description	Del. Volt	System	Feeder	Transformer
1	Res - Schedule 4	(sec)	886	1,084	2,402
2					
3	GS - Schedule 23	(sec)	79	76	271
4	0-15 kW	(sec)	72	67	109
5	15+ kW	(pri)	0	0	0
6	Primary				
7					
8	GS - Schedule 28	(sec)	71	67	109
9	0-50 kW	(sec)	116	110	158
10	51-100 kW	(sec)	145	143	200
11	> 101kW				
12	Primary	(pri)	3	3	4
13					
14	GS - Schedule 30	(sec)	31	31	41
15	0-300 kW	(sec)	163	162	194
16	301+ kW	(pri)	14	14	17
17	Primary				
18					
19	LPS - Schedule 48T	(sec)	90	89	143
20	1 - 4 MW	(pri)	60	58	92
21	1 - 4 MW	(sec)	7	6	18
22	> 4 MW	(pri)	156	154	236
23	> 4 MW	(trn)	46	0	69
24	Trans				
25					
26	Irrigation - Sch 41	(sec)	21	16	98

Source:

Columns C, D & E - PacifiCorp, Load Research Dept.

Cust Data 5

PacifiCorp  
Oregon Marginal Cost Study  
Allocation of Uncollectible Expense between Members of Class  
12 Months Ended December 2010

Line	Description	(A) Del. Volt	(B) Revenues 2008		(C)		(D) Percent of Total Revenues		(E)		(F) Allocated Net Uncollectible		(H) Total
			Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial			
1	Res - Schedule 4	(sec)	0	0	0.00%	0.00%	-	-	-	-	-	1,372,331	
2													
3	GS - Schedule 23	(sec)	98,906,325	2,060,822	30.30%	1.62%	56,303	878	57,181				
4		(pri)	94,057	14,785	0.03%	0.01%	54	6	60				
5													
6	Total		\$99,000,382	\$2,075,607	30.32%	1.63%	56,356	885	57,241				
7													
8	GS - Schedule 28	(sec)	119,734,513	7,231,431	36.68%	5.68%	68,159	3,082	71,241				
9		(pri)	883,991	272,491	0.27%	0.21%	503	116	619				
10													
11	Total		\$120,618,504	\$7,503,922	36.95%	5.89%	68,662	3,198	71,861				
12													
13	GS - Schedule 30	(sec)	60,378,532	14,427,862	18.49%	11.33%	34,371	6,149	40,520				
14		(pri)	4,790,442	645,423	1.47%	0.51%	2,727	275	3,002				
15													
16	Total		\$65,168,974	\$15,073,285	19.96%	11.84%	37,098	6,425	43,522				
17													
18	LPS - Schedule 48T	(sec)	20,145,149	19,064,942	6.17%	14.97%	11,468	8,126	19,594				
19		(pri)	21,535,569	64,113,448	6.60%	50.34%	12,259	27,326	39,586				
20		(trn)	0	19,524,413	0.00%	15.33%	-	8,322	8,322				
21													
22	Total		\$41,680,718	\$102,702,803	12.77%	80.64%	23,727	43,774	67,501				
23													
24	Irrigation - Schedule 41 (Average)	(sec)	-	\$13,718,053	0.00%	100.00%	-	9,875	9,875				
25	Irrigation - Schedule 33* (Average)	(sec)	-	\$3,422,637	0.00%	19.97%	-	1,972	1,972				
25			\$0	\$13,718,053	0.00%	100.00%	-	9,875	9,875				
26													
27	Total		\$326,468,578	\$141,073,670			185,843	64,157	1,622,330				

\* Schedule 33 Cost of Service results are provided for informational purposes only.





Docket No. UE-210  
Exhibit PPL/920  
Witness: C. Craig Paice

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

---

**Exhibit Accompanying Reply Testimony of C. Craig Paice**

**Oregon Line Losses**

**August 2009**

PACIFICORP OREGON REVISED

EXHIBIT 1

SUMMARY OF COMPANY DATA

ANNUAL PEAK		2,598 MW
GENERATION & PURCHASES-INPUT		15,300,810 MWH
ANNUAL SALES	-OUTPUT	14,120,569 MWH
SYSTEM LOSSES	INPUT	1,180,240 or 7.71%
	OUTPUT	or 8.36%
SYSTEM LOAD FACTOR		67.2%

SUMMARY OF LOSSES - OUTPUT RESULTS

SERVICE	KV	MW	% TOTAL	MWH	% TOTAL
TRANS	345,161,115	123.1	49.92%	532,420	45.11%
		4.74%		3.48%	
PRIMARY	69,34,12,1	70.2	28.48%	288,840	24.47%
		2.70%		1.89%	
SECONDARY		53.3	21.61%	358,980	30.42%
		2.05%		2.35%	
TOTAL		246.7	100.00%	1,180,240	100.00%
		9.50%		7.71%	

SUMMARY OF LOSS FACTORS

SERVICE	KV	CUMMULATIVE SALES EXPANSION FACTORS			
		DEMAND		ENERGY	
		d	1/d	e	1/e
TRANS	345,161,115	1.04975	0.95260	1.03605	0.96520
PRIM SUBS	69,46,35	0.00000	0.00000	0.00000	0.00000
PRIMARY	69,34,12,1	1.08191	0.92430	1.05771	0.94544
SECONDARY		1.11306	0.89842	1.09180	0.91592

SUMMARY OF CONDUCTOR INFORMATION

EXHIBIT 2

DESCRIPTION	CIRCUIT MILES	LOADING % RATING	LOAD	MWH LOSSES NO LOAD	TOTAL
----- 345 KV OR GREATER -----					
TIE LINES	0.0	0.00%	0.000	0.000	0.000
BULK TRANS	0.0	0.00%	0.000	0.000	0.000
SUBTOT	0.0		0.000	0.000	0.000
----- 115 KV TO 345.00 KV -----					
TIE LINES	0	0.00%	0.000	0.000	0.000
TRANS1	0.0	0.00%	0.000	0.000	0.000
TRANS2	0.0	0.00%	0.000	0.000	0.000
SUBTOT	0.0		0.000	0.000	0.000
----- 35 KV TO 115 KV -----					
TIE LINES	0	0.00%	0.000	0.000	0.000
SUBTRANS1	0.0	0.00%	0.000	0.000	0.000
SUBTRANS2	0.0	0.00%	0.000	0.000	0.000
SUBTRANS3	0.0	0.00%	0.000	0.000	0.000
SUBTOT	0.0		0.000	0.000	0.000
PRIMARY LINES	18,455		54,106	5,806	59,912
SECONDARY LINES	5,782		3,504	0,000	3,504
SERVICES	12,570		12,635	1,598	14,234
TOTAL	36,807		70,245	7,404	77,649

LOAD	MWH LOSSES NO LOAD	TOTAL
0	0	0
0	0	0
0	0	0
-----		
0	0	0
0	0	0
0	1	1
0	1	1
-----		
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
168,409	52,900	221,309
16,994	0	16,994
61,720	14,000	75,721
247,123	66,901	314,024

EXHIBIT 3

SUMMARY OF TRANSFORMER INFORMATION

DESCRIPTION	KV CAPACITY VOLTAGE	MVA	NUMBER TRANSFMR	AVERAGE SIZE	LOADING %	MVA LOAD	MW LOSSES		MWH LOSSES		TOTAL
							LOAD	NO LOAD	LOAD	NO LOAD	
BULK STEP-UP	345	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
BULK - BULK		0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
BULK - TRANS1	161	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
BULK - TRANS2	115	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
TRANS1 STEP-UP	161	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
TRANS1 - TRANS2	115	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
TRANS1-SUBTRANS1	69	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
TRANS1-SUBTRANS2	46	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
TRANS1-SUBTRANS3	35	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
TRANS2 STEP-UP	115	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
TRANS2-SUBTRANS1	69	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
TRANS2-SUBTRANS2	46	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
TRANS2-SUBTRANS3	35	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
SUBTRAN1 STEP-UP	69	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
SUBTRAN2 STEP-UP	46	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
SUBTRAN3 STEP-UP	35	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
SUBTRAN1-SUBTRAN2	46	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
SUBTRAN1-SUBTRAN3	35	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
SUBTRAN2-SUBTRAN3	35	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
DISTRIBUTION SUBSTATIONS											
TRANS1 -	161	70.0	3	23.3	42.00%	29	0.047	0.079	196	692	889
TRANS1 -	12	85.0	3	28.3	55.14%	47	0.103	0.099	433	865	1,298
TRANS1 -	161	0.0	0	0.0	0.00%	0	0.000	0.000	0	865	865
TRANS2 -	115	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
TRANS2 -	115	2,362.2	116	20.4	55.14%	1,303	2.828	2.777	11,886	24,328	36,215
TRANS2 -	115	7.7	2	3.8	55.14%	4	0.013	0.015	56	129	185
SUBTRAN1-	69	4.7	1	4.7	42.00%	2	0.006	0.010	23	92	115
SUBTRAN1-	69	1,750.1	186	9.4	55.14%	965	2.443	2.464	10,267	21,587	31,854
SUBTRAN1-	69	10.9	4	2.7	55.14%	6	0.018	0.020	77	173	250
SUBTRAN2-	46	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
SUBTRAN2-	46	36.8	2	18.4	55.14%	20	0.045	0.045	190	396	585
SUBTRAN2-	46	47.2	5	9.4	55.14%	26	0.067	0.069	280	608	889
SUBTRAN3-	35	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
SUBTRAN3-	35	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
SUBTRAN3-	35	0.0	0	0.0	0.00%	0	0.000	0.000	0	0	0
PRIMARY - PRIMARY		115.0	39	2.9	55.14%	63	0.209	0.229	878	2,004	2,882
LINE TRANSFRMR		7,815.8	201,430	38.8	26.52%	2,073	6.995	29.523	14,580	258,619	273,199
TOTAL		12,305	201,791			12,774	35,330	48,104	38,867	310,358	349,226

SUMMARY OF LOSSES DIAGRAM - DEMAND MODEL - SYSTEM PEAK

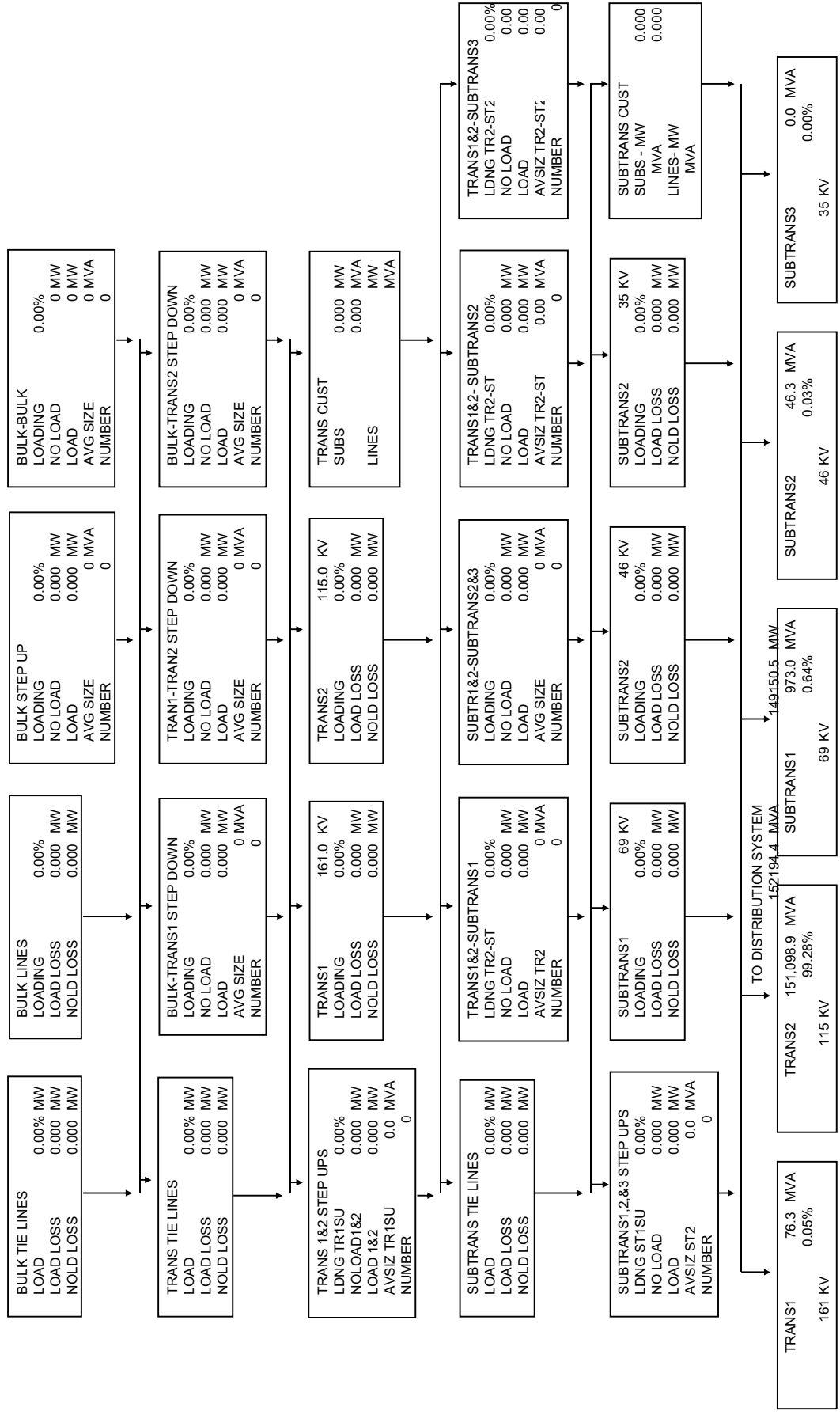
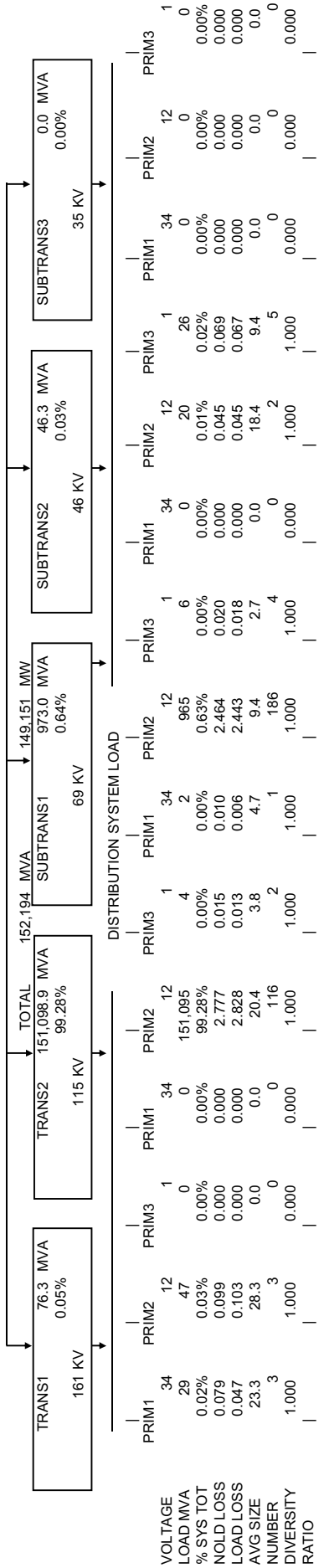


EXHIBIT 4 PAGE 2 of 2

FROM HIGH VOLTAGE SYSTEM



PRIM CUST LOADS	0.000 MW
NO LINES	0.000 MVA
CUST SUB	0.000 MW
NO LINES	0.000 MVA
CO. SUB	0.000 MVA
PRIM WITH	389.361 MW
LINES	409.854 MVA

PRIM/PRIM TRANSF	63.431 MW
LOADING	0.229 MW
NOLD LOSS	0.209 MW
LOAD LOSS	2.95 MW
AVG SIZE	39
NUMBER	

LINE TRANSFORMERS	1905.287 MW	2109.359 MVA
LOADING	29.523 MW	
NOLD LOSS	6.995 MW	
LOAD LOSS	38.8 KVA	
AVG SIZE	201430	
NUMBER		

NO SECONDARY LINES	1178.217 MW
LOAD	

SECONDARY LINES	690.552 MW
LOAD	3.504 MW
LOAD LOSS	0.000 MW
NOLD LOSS	3.504 MW
TOT LOSS	

SERVICES	1865.266 MW
LOAD	12.635 MW
LOAD LOSS	1.598 MW
NOLD LOSS	14.234 MW
TOT LOSS	

CUSTOMER SECONDARY LOAD	1851.032 MW
-------------------------	-------------

EXHIBIT 5

SUMMARY of SALES and CALCULATED LOSSES

LOSS # AND LEVEL	MW LOAD	NO LOAD +	TOT LOSS	EXP FACTOR	CUM EXP FAC	MWH LOAD	NO LOAD +	TOT LOSS	EXP FACTOR	CUM EXP FAC
1 BULK XFMMR	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0
2 BULK LINES	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
3 TRANS1 XFMR	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
4 TRANS1 LINES	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
5 TRANS2TR1 SD	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
6 TRANS2BLK SD	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
7 TRANS2 LINES	0.0	0.00	0.00	0.000000	0.000000	0	1	0	1	0.000000
TOTAL TRAN	0.0	0.00	0.00	0.000000	0.000000	0	1	0	1	0.000000
8 STR1BLK SD	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
9 STR1T1 SD	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
10 SRT1T2 SD	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
11 SUBTRANS1 LINES	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
12 STR2T1 SD	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
13 STR2T2 SD	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
14 STR2S1 SD	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
15 SUBTRANS2 LINES	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
16 STR3T1 SD	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
17 STR3T2 SD	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
18 STR3S1 SD	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
19 STR3S2 SD	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
20 SUBTRANS3 LINES	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
21 SUBTRANS TOTAL	0.0	0.00	0.00	0.000000	0.000000	0	0	0	0	0.000000
22 TRANSMN LOSS FAC	2,598.1	24.53	98.61	123.14	1,049,754	15,300,810	208,601	323,819	532,420	1,036,0513
DISTRIBUTION SUBST										
TRANS1	74.7	0.18	0.15	0.33	1,004,402	443,072	2,422	630	3,052	1,006,9356
TRANS2	1,276.5	2.79	2.84	5.63	1,004,433	7,591,451	24,457	11,942	36,400	1,004,8179
SUBTR1	953.5	2.49	2.47	4.96	1,005,230	5,652,241	21,852	10,368	32,220	1,005,7330
SUBTR2	45.4	0.11	0.11	0.23	1,005,016	268,969	1,004	470	1,474	1,005,5104
SUBTR3	0.0	0.00	0.00	0.00	0.000000	0	0	0	0	0.000000
WEIGHTED AVERAGE	2,350.1	5.6	5.6	11.15	1,004,766	13,955,733	49,735	23,410	73,145	1,005,2688
PRIMARY INTRCHNGE	16.0				1,000,000	163,558				1,000,0000
PRIMARY LINES	2,355.0	6.03	54.31	60.35	1,026,300	14,046,057	52,866	168,409	221,275	1,016,0057
LINE TRANSF	1,905.3	29.52	7.00	36.52	1,019,541	11,504,234	258,619	14,580	273,199	1,024,3254
SECONDARY	1,868.8	0.00	3.50	3.50	1,001,878	11,231,034	0	16,994	16,994	1,001,5155
SERVICES	1,865.3	1.60	12.64	14.23	1,007,689	11,214,040	14,000	61,720	75,721	1,006,7982
TOTAL SYSTEM		67.27	181.63	248.89			583,822	608,933	1,192,755	



**DEVELOPMENT of LOSS FACTORS**  
UNADJUSTED  
DEMAND

EXHIBIT 6

LOSS FACTOR LEVEL	CUSTOMER SALES MW	CALC LOSS TO LEVEL	SALES MW @ GEN	CUM EXPANSION FACTORS	
	a	b	c	d	1/d
BULK LINES	0.0	0.0	0.0	0.00000	0.00000
TRANS SUBS	0.0	0.0	0.0	0.00000	0.00000
TRANS LINES	111.0	5.5	116.5	1.04975	0.95260
SUBTRANS SUBS	0.0	0.0	0.0	0.00000	0.00000
SUBTRANS LINES	0.0	0.0	0.0	0.00000	0.00000
PRIM SUBS	0.0	0.0	0.0	0.00000	0.00000
PRIM LINES	389.4	32.1	421.5	1.08250	0.92379
SECONDARY	<u>1,851.0</u>	<u>211.4</u>	<u>2,062.5</u>	1.11423	0.89748
TOTALS	2,351.4	249.1	2,600.5		

**DEVELOPMENT of LOSS FACTORS**  
UNADJUSTED  
ENERGY

LOSS FACTOR LEVEL	CUSTOMER SALES MWH	CALC LOSS TO LEVEL	SALES MWH @ GEN	CUM EXPANSION FACTORS	
	a	b	c	d	1/d
BULK LINES	0	0	0	0.00000	0.00000
TRANS SUBS	0	0	0	0.00000	0.00000
TRANS LINES	661,701	23,855	685,556	1.03605	0.96520
SUBTRANS SUBS	0	0	0	0.00000	0.00000
SUBTRANS LINES	0	0	0	0.00000	0.00000
PRIM SUBS	0	0	0	0.00000	0.00000
PRIM LINES	2,320,549	135,010	2,455,559	1.05818	0.94502
SECONDARY	<u>11,138,319</u>	<u>1,035,232</u>	<u>12,173,552</u>	1.09294	0.91496
TOTALS	14,120,569	1,194,098	15,314,667		

ESTIMATED VALUES AT GENERATION

LOSS FACTOR AT VOLTAGE LEVEL

	MW	MWH
BULK LINES	0.00	0
TRANS SUBS	0.00	0
TRANS LINES	116.55	685,556
SUBTRANS SUBS	0.00	0
SUBTRANS LINES	0.00	0
PRIM SUBS	0.00	0
PRIM LINES	421.48	2,455,559
SECONDARY	2,062.47	12,173,552
SUBTOTAL	2,600.50	15,314,667
ACTUAL ENERGY LESS THAN	2,598.12	15,300,810
MISMATCH	2.38	13,857
% MISMATCH	0.09%	0.09%

**DEVELOPMENT of LOSS FACTORS**  
ADJUSTED  
DEMAND

EXHIBIT 7

LOSS FACTOR LEVEL	CUSTOMER SALES MW a	SALES ADJUST b	CALC LOSS TO LEVEL c	SALES MW @ GEN d	CUM EXPANSION FACTORS e	f=1/e
BULK LINES	0.0	0.0	0.0	0.0	0.00000	0.00000
TRANS SUBS	0.0	0.0	0.0	0.0	0.00000	0.00000
TRANS LINES	111.0	0.0	5.5	116.5	1.04975	0.95260
SUBTRANS SUBS	0.0	0.0	0.0	0.0	0.00000	0.00000
SUBTRANS LINES	0.0	0.0	0.0	0.0	0.00000	0.00000
PRIM SUBS	0.0	0.0	0.0	0.0	0.00000	0.00000
PRIM LINES	389.4	0.0	31.9	421.3	1.08191	0.92430
SECONDARY	<u>1,851.0</u>	<u>0.0</u>	<u>209.3</u>	<u>2,060.3</u>	1.11306	0.89842
TOTALS	2,351.4	0.0	246.7	2,598.1		

**DEVELOPMENT of LOSS FACTORS**  
ADJUSTED  
ENERGY

LOSS FACTOR LEVEL	CUSTOMER SALES MWH a	SALES ADJUST b	CALC LOSS TO LEVEL c	SALES MWH @ GEN d	CUM EXPANSION FACTORS e	f=1/e
BULK LINES	0	0	0	0	0.00000	0.00000
TRANS SUBS	0	0	0	0	0.00000	0.00000
TRANS LINES	661,701	0	23,855	685,556	1.03605	0.96520
SUBTRANS SUBS	0	0	0	0	0.00000	0.00000
SUBTRANS LINES	0	0	0	0	0.00000	0.00000
PRIM SUBS	0	0	0	0	0.00000	0.00000
PRIM LINES	2,320,549	0	133,915	2,454,464	1.05771	0.94544
SECONDARY	<u>11,138,319</u>	<u>0</u>	<u>1,022,470</u>	<u>12,160,789</u>	1.09180	0.91592
TOTALS	14,120,569	0	1,180,240	15,300,810		

ESTIMATED VALUES AT GENERATION

LOSS FACTOR AT VOLTAGE LEVEL	MW	MWH
BULK LINES	0.00	0
TRANS SUBS	0.00	0
TRANS LINES	116.55	685,556
SUBTRANS SUBS	0.00	0
SUBTRANS LINES	0.00	0
PRIM SUBS	0.00	0
PRIM LINES	421.25	2,454,464
SECONDARY	2,060.31	12,160,789
	2,598.12	15,300,810
ACTUAL ENERGY LESS THIR	2,598.12	15,300,810
MISMATCH	0.00	0
% MISMATCH	0.00%	0.00%

**Adjusted Losses and Loss Factors by Facility**

EXHIBIT 8

**Unadjusted Losses by Segment**

	MW	MWH
Service Drop Losses	14.25	75,875
Secondary Losses	3.51	17,029
Line Transformer Losses	36.57	273,755
Primary Line Losses	60.44	221,725
Distribution Substation Losses	11.17	73,294
<u>Transmission System Losses</u>	<u>123.14</u>	<u>532,420</u>
Total	249.08	1,194,098

**Mismatch Allocation by Segment**

	MW	MWH
Service Drop Losses	0.27	1,589
Secondary Losses	0.07	357
Line Transformer Losses	0.69	5,733
Primary Line Losses	1.14	4,644
Distribution Substation Losses	0.21	1,535
<u>Transmission System Losses</u>	<u>0.00</u>	<u>0</u>
Total	2.38	13,857

**Adjusted Losses by Segment**

	MW	MWH
Service Drop Losses	13.98502	74,286
Secondary Losses	3.44255	16,672
Line Transformer Losses	35.88024	268,022
Primary Line Losses	59.29569	217,081
Distribution Substation Losses	10.95389	71,759
<u>Transmission System Losses</u>	<u>123.14001</u>	<u>532,420</u>
Total	246.69739	1,180,240

**Loss Factors by Segment**

Retail Sales from Service Drops	1851.03	11,138,319
<u>Adjusted Service Drop Losses</u>	<u>13.99</u>	<u>74,286</u>
Input to Service Drops	1865.02	11,212,605
<b>Service Drop Loss Factor</b>	<b>1.00756</b>	<b>1.00667</b>
Output from Secondary	1865.02	11,212,605
<u>Adjusted Secondary Losses</u>	<u>3.44</u>	<u>16,672</u>
Input to Secondary	1868.46	11,229,277
<b>Secondary Loss Factor</b>	<b>1.00185</b>	<b>1.00149</b>
Output from Line Transformers	1868.46	11,229,277
<u>Adjusted Line Transformer Losses</u>	<u>35.88</u>	<u>268,022</u>
Input to Line Transformers	1904.34	11,497,299
<b>Line Transformer Loss Factor</b>	<b>1.01920</b>	<b>1.02387</b>
Retail Sales from Primary	389.36	2,320,549
Req. Whls Sales from Primary	0.00	0
<u>Input to Line Transformers</u>	<u>1904.34</u>	<u>11,497,299</u>
Output from Primary Lines	2293.70	13,817,848
<u>Adjusted Primary Line Losses</u>	<u>59.30</u>	<u>217,081</u>
Input to Primary Lines	2353.00	14,034,930
<b>Primary Line Loss Factor</b>	<b>1.02585</b>	<b>1.01571</b>
Output from Distribution Substations	2353.00	14,034,930
<u>Adjusted Distribution Substation Losses</u>	<u>10.95389</u>	<u>71,759</u>
Input to Distribution Substations	2363.95	14,106,689
<b>Distribution Substation Loss Factor</b>	<b>1.00466</b>	<b>1.00511</b>
Retail Sales at from Transmission	111.026	661,701
Req. Whls Sales from Transmission	0.00	0
Non-Req. Whls Sales from Transmission	0.000	0
Third Party Wheeling Losses	0.000	0
<u>Input to Distribution Substations</u>	<u>2363.95</u>	<u>14,106,689</u>
Output from Transmission	2,474.976	14,768,390
<u>Adjusted Transmission System Losses</u>	<u>123.14001</u>	<u>532,420</u>
Input to Transmission	2,598.116	15,300,810
<b>Transmission System Loss Factor</b>	<b>1.04975</b>	<b>1.03605</b>

DEMAND MW		SUMMARY OF LOSSES AND LOSS FACTORS BY DELIVERY VOLTAGE						EXHIBIT 9
SERVICE LEVEL		SALES MW	LOSSES	SECONDARY	PRIMARY	SUBSTATION	SUBTRANS	TRANSMISSION
1	<b>SERVICES</b>							
2	SALES	1,851.0		1,851.0				
3	LOSSES		14.0	14.0				
4	INPUT			1,865.0				
5	<b>EXPANSION FACTOR</b>	<b>1.00756</b>						
6	<b>SECONDARY</b>							
7	SALES							
8	LOSSES		3.4	3.4				
9	INPUT			1,868.5				
10	<b>EXPANSION FACTOR</b>	<b>1.00185</b>						
11	<b>LINE TRANSFORMER</b>							
12	SALES							
13	LOSSES		35.9	35.9				
14	INPUT			1,904.3				
15	<b>EXPANSION FACTOR</b>	<b>1.01920</b>						
16	<b>PRIMARY</b>							
17	SECONDARY			1,904.3				
18	SALES	389.4			389.4			
19	LOSSES		59.3	49.2	10.1			
20	INPUT							
21	<b>EXPANSION FACTOR</b>	<b>1.02585</b>						
22	<b>SUBSTATION</b>							
23	PRIMARY			1,953.6	399.4			
24	SALES	0.0				0.0		
25	LOSSES		11.0	9.1	1.9	0.0		
26	INPUT			1,962.7	401.3	0.0		
27	<b>EXPANSION FACTOR</b>	<b>1.00466</b>						
28	<b>SUB-TRANSMISSION</b>							
29	DISTRIBUTION SUBS							
30	SALES							
31	LOSSES							
32	INPUT							
33	<b>EXPANSION FACTOR</b>							
34	<b>TRANSMISSION</b>							
35	SUBTRANSMISSION							
36	DISTRIBUTION SUBS			1,962.7	401.3	0.0		
37	SALES	111.0					111.0	
38	LOSSES		123.1	97.7	20.0	0.0	5.5	
39	INPUT			2,060.3	421.3	0.0	116.5	
40	<b>EXPANSION FACTOR</b>	<b>1.04975</b>						
41	<b>TOTALS</b>							
42	LOSSES		246.7	209.3	31.9	0.0	5.5	
42	% OF TOTAL		100%	84.83%	12.93%	0.00%	2.24%	
43	SALES	2,351.4		1,851.0	389.4	0.0	111.0	
44	% OF TOTAL	100.00%		78.72%	16.56%	0.00%	4.72%	
45	INPUT	2,598.1		2,060.3	421.3	0.0	116.5	
46	<b>CUMMULATIVE EXPANSION LOSS FACTORS</b>			<b>1.11306</b>	<b>1.08191</b>	<b>NA</b>		<b>1.04975</b>
	(from meter to system input)							

ENERGY MWH		SUMMARY OF LOSSES AND LOSS FACTORS BY DELIVERY VOLTAGE					EXHIBIT 9
SERVICE LEVEL	SALES	LOSSES	SECONDARY	PRIMARY	SUBSTATION	SUBTRANS	TRANSMISSION
1	<b>SERVICES</b>						
2	SALES	11,138,319		11,138,319			
3	LOSSES		74,286	74,286			
4	INPUT			11,212,605			
5	<b>EXPANSION FACTOR</b>	<b>1.00667</b>					
6	<b>SECONDARY</b>						
7	SALES						
8	LOSSES		16,672	16,672			
9	INPUT			11,229,277			
10	<b>EXPANSION FACTOR</b>	<b>1.00149</b>					
11	<b>LINE TRANSFORMER</b>						
12	SALES						
13	LOSSES		268,022	268,022			
14	INPUT			11,497,299			
15	<b>EXPANSION FACTOR</b>	<b>1.02387</b>					
16	<b>PRIMARY</b>						
17	SECONDARY			11,497,299			
18	SALES	2,320,549.000			2,320,549		
19	LOSSES		217,081	180,625	36,456		
20	INPUT						
21	<b>EXPANSION FACTOR</b>	<b>1.01571</b>					
22	<b>SUBSTATION</b>						
23	PRIMARY			11,677,924	2,357,005		
24	SALES	0				0	
25	LOSSES		71,759	59,708	12,051	0	
26	INPUT			11,737,632	2,369,056	0	
27	<b>EXPANSION FACTOR</b>	<b>1.00511</b>					
28	<b>SUB-TRANSMISSION</b>						
29	DISTRIBUTION SUBS						
30	SALES						
31	LOSSES						
32	INPUT						
33	<b>EXPANSION FACTOR</b>						
34	<b>TRANSMISSION</b>						
35	SUBTRANSMISSION						
36	DISTRIBUTION SUBS			11,737,632	2,369,056	0	
37	SALES	661,701					661,701
38	LOSSES		532,420	423,157	85,408	0	23,855
39	INPUT			12,160,789	2,454,464	0	685,556
40	<b>EXPANSION FACTOR</b>	<b>1.03605</b>					
41	<b>TOTALS</b>		1,180,240	1,022,470	133,915	0	23,855
42	% OF TOTAL		100%	86.63%	11.35%	0.00%	2.02%
43	SALES	14,120,569		11,138,319	2,320,549	0	661,701
44	% OF TOTAL	100.00%		78.88%	16.43%	0.00%	4.69%
45	INPUT	15,300,810		12,160,789	2,454,464	0	685,556
46	<b>CUMMULATIVE EXPANSION LOSS FACTORS</b>		<b>1.09180</b>	<b>1.05771</b>	<b>NA</b>		<b>1.03605</b>
	(from meter to system input)						



Docket No. UE-210  
Exhibit PPL/921  
Witness: C. Craig Paice

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of C. Craig Paice**

**OPUC Staff Data Request Response**

**August 2009**

August 7, 2009

TO: Katherine McDowell  
Counsel for PacifiCorp

FROM: Judy Johnson  
Program Manager, Rates and Regulation

**OREGON PUBLIC UTILITY COMMISSION**  
**UE 210**  
**PacifiCorp' s Second Set of Data Requests to OPUC**  
**Due August 7, 2009**  
**Data Request 2.15**

**Request:**

- 2.15 See Staff/1100, Compton/3, lines 19 and 20. Please provide the basis for the statement that “ something closer [i.e., than the Company' s \$8 figure] to the \$5/MMBTU seems to be the current long-run projection” for natural gas prices. Include all files relied upon in electronic format with all formulae intact.

**Response:**

As a subscriber to the *Wall Street Journal* I' m regularly exposed to articles referring to the natural gas industry, but wouldn' t be able to tell you the precise source of the above statement. However, the following citation from the Googled reference, “ Natural Gas” by Tom Whipple in the journal of the *Association for the Study of Peak Oil and Gas*, June 22, 2009, should be sufficient for the limited purpose of my testimony (see the response to DR 2.17): “ The US' s supply of natural gas has been much in the news lately as prices have fallen to \$4 /mbtu [sic] and a steady stream of announcements and articles have touted the potential of shale gas...A report issued by the non-profit Potential Gas Committee last week concludes that due to the discovery of immense new shale gas fields in Texas, Louisiana and Appalachians, the US now has 2,074 trillion cubic feet of gas in the ground or nearly 100 years worth ‘ at current rates of production’ ...”





Docket No. UE-210  
Exhibit PPL/922  
Witness: C. Craig Paice

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of C. Craig Paice**

**Oregon Substation Peaks**

**August 2009**

Oregon Distribution Substations  
Monthly Peaks for July 2007 to June 2008

Substation	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Peak Month	Peak	Column
Agness Avenue	17465	19342	17138	15748	16713	17764	18531	17559	17206	17072	17033	17644	Aug-07	19,342.0	2
Aldenwood	19801	19171	18535	16076	16886	16746	16944	16275	15880	15788	18700	19052	Jul-07	19,801.0	1
Applegate	10353	9246	8350	10300	10995	11403	13561	12496	12226	11396	9499	8641	Jan-08	13,561.0	7
Arlington	1240	1000		1300	1700	1800	2300	2300			960	1400	Jan-08	2,300.0	7
Ashland	17013	15354	12997	12460	14516	15626	16161	15398	14273	13871	15087	15097	Jul-07	17,013.0	1
Athens	3120	3120	3250	3650	3650	3650	4300	4500	2500	3120	2400	3100	Feb-08	4,500.0	8
Bandon	1284	1088	976	1066	1242	1774	1564	1442	1732	1436	1902	1244	May-08	1,902.0	11
Beacon	8200	8790	7600	7600	7600	6650	7020	6440	6090		7030	5740	Aug-07	8,790.0	2
Beall Lane	17350	16362	14737	13472	15554	15648	16618	15651	15486	14916	15025	15326	Jul-07	17,350.0	1
Beatty	2419	2754	2027	2027	826	968	1105	880	842	1944	2610	2676	Aug-07	2,754.0	2
Belknap		33000		24700	24700	24000	24700	23300	21600	19800			Aug-07	33,000.0	2
Bend Plant	17146	15905	12925	12476	15447	17712	17552	15456	13719	13390	12905	15269	Dec-07	17,112.0	6
Blalock	1	287		287	287	287	287	287	61	290	296	272	May-08	296.0	11
Bond Street	13789	12747	10589	10170	12241	14068	14777	12804	11868	11634	10937	12389	Jan-08	14,777.0	7
Brookhurst	37298	33714	29079	24564	26677	28401	30014	28940	27795	25758	29959	30772	Jul-07	37,298.0	1
Bryant	22489	23350	19599	20642	24578	27437	27707	25833	23818	22507	20493	20516	Jan-08	27,707.0	7
Buchanan	26271	25096	24211	23860	27050	27348	29518	25911	26542	25083	23664	21982	Jan-08	29,518.0	7
Buckaroo	21918	20687	18639	18107	18326	19335	22933	18657	17501	17866	18724	22325	Jan-08	22,933.0	7
Campbell	15200	16000	14700	13200	18106	15738	16367	18317	17494	17121	20213	20084	May-08	20,213.0	11
Cannon Beach		5500	550	6000	12200	8500	8500	65000	8000	6850	6500	6500	Feb-08	65,000.0	8
Carnes	3200	3100	3100	3400	3400	3500	3750	3400	2000	2800	2800		Jan-08	3,750.0	7
Cave Junction	10036	9395	9396	11229	13527	14483	15692	13720	13967	13523	11976	8609	Jan-08	15,692.0	7
Caveman	23529	20999	17592	14559	16567	17748	18320	17113	16879	16234	18765	17841	Jul-07	23,529.0	1
Cherry Lane	7467	7391	7327	7327	7209	7355	7359	7241	7327	7060	6979	6846	Jul-07	7,467.0	1
Chiloquin Market	4953	4655	4522	5492			4886	5241	5241	4116			Jun-08	5,492.0	12
China Hat	16278	14815	17355	18451	20395	16198	27256	22696	22172	21987	18728	15451	Jan-08	27,256.0	7
Circle Blvd	19192	18959	18889	17448	17352	16953	17234	17256	17358	17320	19324	18354	May-08	19,324.0	11
Cleveland Ave.	26625	25548	22685	23364	27478		31648	27532	26122	25784	23197	24832	Jan-08	31,648.0	7
Cloak	17209	15317	13756	12090	13871	14952	17612	14416	14614	13946	16049	15053	Jan-08	17,612.0	7
Coburg	2323	2176	2011	1957	2157	2393	2593	2213	2224	2144	1951	1938	Jan-08	2,593.0	7
Columbia	31587	29716	30662	32867	28571	28933	30960	29129	28151	30502	27394	26853	Oct-07	32,867.0	4
Coquille	10657	10772	12879	16156	16787	17517	18495	17152	10358	13980	15191	12674	Jan-08	18,495.0	7
Crooked River	7061	6804	7612	7612	9258	13854	9591	9846	11003	6429	5774	6392	Dec-07	13,854.0	6
Crowfoot	8840	9534	9315	9908	11354	12156	13829	11859	10959	11220	9550	10235	Jan-08	13,829.0	7
Cully	14886	13964	13863	12883	17875	16318	16310	15020	14070	20795	13505	18707	Apr-08	20,795.0	10
Culver	8723	7591	6113	5983	6318	7136	8416	6465	6640	7220	7912	7863	Jul-07	8,723.0	1
Dairy	11284	9519	6355	1944	2072	2401	2719	2322	2243	2297	8495	8783	Jul-07	11,284.0	1
Dallas	14075	12757	12665	14906	17816	18111	19557	18285	16904	17203	14731	12840	Jan-08	19,557.0	7
Dalreed	35					5					4391		May-08	4,391.3	11
Dalreed	43198	38706	36249	26651	16026	5373	5305	12548	13743	23865	35498	42459	Jul-07	43,198.0	1
Deschutes	6387	6020	7012	8093	9886	11617	14165	10798	10615	10432	8507	6473	Jan-08	14,165.0	7
Devils Lake	21378	21906	24320	27229	33210	36346	36742	32898	34455	31333	26141	24149	Jan-08	36,742.0	7
Dixon	3998	3833	3624	2662	3010	3088	3103	2886	2775	2651	3626	3351	Jul-07	3,998.0	1
Dodge Bridge	10180	12266	8045	9228	10472	11996	12792	11772	11147	10675	9760	9126	Jan-08	12,792.0	7
Easy Valley	24101	22216	18309	18247	21732	21379	25177	23280	22146	21522	20697	21741	Jan-08	25,177.0	7
Empire	9444	9383	12618	15086	18948	20160	21355	20028	19540	19299	15938	12090	Jan-08	21,355.0	7
Enterprise	13500	12700	9700	14400		16600	16000	12500	15100	15100	10300	12000	Dec-07	16,600.0	6
Fern Hill	2258	2457	2588	1994	2185	2220	2428	2103	2169	1824	2104	2104	Sep-07	2,588.0	3
Fielder Creek	7108	7424	5867	7344	8952	8687	9716	9255	9000	8599	7025	6236	Jan-08	9,716.0	7
Foothills Rd	18215	17026	14100	9360	10576	11211	11661	11337	10927	10550	13315	13375	Jul-07	18,215.0	1
Fraleigh	4280	3960	3400	3400	4200		4840	4800	4440	3480			Jan-08	4,840.0	7
Garden Valley	14454	13746	10398	7707	9344	13762	15015	12931	13111	12748	13746	13657	Jan-08	15,015.0	7
Gazley	4550	4270	3960	4110	4340	4810	4520	4230	4020	3970	4340	4610	Dec-07	4,810.0	6
Glendale	12633	11618	13028	12123	14844	14734	16038	15059	14068	15247	13554	11784	Jan-08	16,038.0	7
Clide	7700	7620	7860	9150	10230	10740		12590	10950	11030	9550	6800	Feb-08	12,590.0	8
Gold Hill	7041	6426	5497	6608	7555	7649	8369	8075	7834	7580	5887	6184	Jan-08	8,369.0	7
Goshen	5594	5612	5370	7057	7489	7920	9504	8058	7855	8058	6560	4463	Jan-08	9,504.0	7
Grant	24587	26455	22585	25002	31582	30630	33866	30230	28705	26862	24415	23178	Jan-08	33,866.0	7
Grass Valley		907	907	400	1132	1129	1212	1212	1122	10004	941	1122	May-08	10,004.0	11
Green	13248	12089	11503	11875	12808	13718	15960	13303	13874	13678	11574	11163	Jan-08	15,960.0	7
Hamaker		536	488	532	616	616	748	704	632	560	484	532	Jan-08	748.0	7
Harrisburg	7028	7065	6384	7608	8216	8589	9926	8296	8217	8171	7158	6368	Jan-08	9,926.0	7
Hazelwood	9000	8000	8000	8000	8200	9400	10000	8800	8800	8000	8000	7800	Jan-08	10,000.0	7
Henley			4600	1373	1589	1771	1790	1680	1574	2846	3466	4080	Sep-07	4,600.0	3
Hermiston	5500	5500		5000	5000	6200	6200	6200	4500	4500	4800	5000	Jan-08	6,200.0	7
Hillview	28370	27429	27075	26465	29271	28652	31042	28423	27191	26553	27620	24027	Jan-08	31,042.0	7
Hinkle	4000	4000		4000	4000	4000	4000	500	3600	3900	3600	3500	Jul-07	4,000.0	1
Holladay	35284	35316	34426	27791	27543	27258	29805	27353	26347	26084	33331	31856	Aug-07	35,316.0	2
Hollywood	25429	23163	27909	20797	25213	26198	27073	24480	22917	21806	22712	23017	Sep-07	27,909.0	3
Hood River	25857	23629	19189	21167	25282	26589	29955	23940	22879	23217	19957	22989	Jan-08	29,955.0	7
Hornet	17185	16478	14390	14412	17295	18666	20227	18692	17774	16597	15346	16405	Jan-08	20,227.0	7
Independence	16491	15625	14735	15112	17683	17397	19183	16509	16704	16573	14668	15347	Jan-08	19,183.0	7
Jacksonville	16318	14613	11764	11912	13587	15518	15899	15369	14680	14025	13509	14782	Jul-07	16,318.0	1
Jefferson	9747	9130	8383	8717	11153	11442	11861	10445	10505	10247	8416	10036	Jan-08	11,861.0	7
Jerome Prairie	16800	15000	12750	15900	19500	21600	21600	22950	21000	20250	19500	10800	Feb-08	22,950.0	8
Jordan Point	2000	2000	2000	2000	2300	2000	2300	2300	2300	2400			Apr-08	2,400.0	10
Junction City	8561	8152	8106	8743	10130	10691	11611	9793	9748	9568	8045	7541	Jan-08	11,611.0	7
Killingsworth	40806	38485	36719	36439	37545	40922	43752	39336	37293	38017	29812	30865	Jan-08	43,752.0	7
Knappa Svensen	2741	2945	3481	4471	5197	4950	5367	4935	4703	5003	3930	3429	Jan-08	5,367.0	7
Knott	17000	19400	20400	28400		38500	25000	39000	22100	218					

Oregon Distribution Substations  
Monthly Peaks for July 2007 to June 2008

Substation	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Peak Month	Peak	Column
Mile High	6853	7086	7177	8051	9483	9507	10430	9892	9916	9681	8414	9761	Jan-08	10,430.0	7
Minam	42	42	42	12	12	42	42	42	42	42	30	42	Jul-07	42.0	1
Modoc	2250	2200	3100	3363	3974	4277	4683	4179	4106	4106	3549	3008	Jan-08	4,683.0	7
Moro		480	400	350	600	400	510	500	500	500	450		Nov-07	600.0	5
Murder Creek	52044	55367	51545	52649	55284	56182	58376	55120	54429	52552	51127	51856	Jan-08	58,376.0	7
Myrtle Creek	11500	10500	9600	10000	11500	17600	16000	11800	12000	12000	10000		Dec-07	17,600.0	6
Myrtle Point	6000	5500	6750	8250	9500	9750		9200	9500	8600	7400	6500	Dec-07	9,750.0	6
Oak Knoll	17475	15869	14026	14519	17798	18568	19466	18682	18223	17021	15257	14971	Jan-08	19,466.0	7
Oakland	6040	5620	5240	5960	6550	6880	10740	7200	6790	6160	6160	5310	Jan-08	10,740.0	7
O'Brien	2846	2815	2974	2898	3140	3517	3527	3429	3329	3619	3088	3189	Apr-08	3,619.0	10
Ormet	36194	38390	36858	34116	33314	34913	33372	35065	35986	37519	33962	32850	Aug-07	38,390.0	2
Overpass	35302	33472	29855	31696	35368	36774	42600	35937	33178	34196	30433	30585	Jan-08	42,600.0	7
Pallette	370	352		711									Nov-07	711.0	5
Park Street	34725	31677	26949	25386	27712	28947	31685	30167	29189	27556	28885	29498	Jul-07	34,725.0	1
Parkrose	25689	23276	22560	23326	28134	29349	29699	26827	24917	26480	26390	23950	Jan-08	29,699.0	7
Pendleton	29200	27520		22850	24700	27500	27400	23100	26500	24000	26950		Jul-07	29,200.0	1
Pilot Butte	13095	12091	10577	11053	13638	15220	17697	13926	13336	13010	11348	11982	Jan-08	17,697.0	7
Pilot Rock	8600	9200		8200	8200	8200	9100	7700	6000	8100	8500	9600	Jun-08	9,600.0	12
Powell Butte	2966	2966	2952	2952	2882		4151	2974	3182	2962	3173	2734	Jan-08	4,151.0	7
Prineville	40367	38344	35334	36904	41785	46655	48304	41808	39476	38851	38126	36802	Jan-08	48,304.0	7
Provot	4064	3580	3593	4161	4125	5357	6008	5738	5738	5285	4228	3130	Jan-08	6,008.0	7
Queen Ave	32410	17328	11913	37339	32591	34837	34566	31606	29924	27993	29861	29869	Oct-07	37,339.0	4
Red Blanket	1100	1050	1100	1200	1260	1490	1850	1940	1400		1280		Feb-08	1,940.0	8
Redmond	43896	41597	35169	40608	45804	49594	58916	46965	45223	45167	40247	40173	Jan-08	58,916.0	7
Riddle	11000	10750	10000	11600	12000	14500	15300	13500	13500	12000	10000		Jan-08	15,300.0	7
Riddle Veneer	14020	13820	14140	14800	14800	14950	14750	14810	14680	14680	14280		Dec-07	14,950.0	6
Rogue River	12050	10950	11200	11000	12800	13200	14400	13850	13500		11250	9200	Jan-08	14,400.0	7
Roseburg	20678	20430	18901	17829	20136	21706	25851	21498	33574	21175	19229	17979	Mar-08	33,574.0	9
Ross Ave	6080	4600	3880	4120	5320	5400	5400	4800	4600	4600	3960	4480	Jul-07	6,080.0	1
Roxy Ann	8037	7583	6435	6657	8398	9838	7507	7107	6800	6328	10560	10695	Jun-08	10,695.0	12
Ruch	7400	6600	6100	7200	7400	9200		9700		9300	8200	6500	Feb-08	9,700.0	8
Running Y	3050	2806	2581	2536	2372	2830	3922	3368	1370	1263	2605	2822	Jan-08	3,922.0	7
Russelville	26017	26643	25487	23851	30601	32179	33945	30087	26925	26756	25176		Jan-08	33,945.0	7
Sage Road	31600	31900	32300	26000	34000	28000	28200	25900	25700	27600	31700	Nov-07	34,000.0	5	
Scenic	25648	24206	20172	17244	19631	20959	24451	20583	19593	19237	22434	23460	Jul-07	25,648.0	1
Scio	4890	4417	4197	4813	5950	6224	6835	5614	5622	5707	4465	4530	Jan-08	6,835.0	7
Seaside	15124	14606	15746	16990	23988	22650	21366	20670	20810	18596	18518	15410	Nov-07	23,988.0	5
Selma	2980	2590	2630	2910	4200	4150	4180	3710	3720	3900	3360	2370	Nov-07	4,200.0	5
Shelvin Park	17590	15763	13212	12959	15256	16650	16496	15109	13662	13582	14443	16089	Jul-07	17,590.0	1
South Dunes	4400	4000	3800	3800	4000	4000	4000	4100		3700	4300	3400	Jul-07	4,400.0	1
Southgate	12426	12099	10104	10705	11861	12698	14026	12925	11835	12275	11260	9659	Jan-08	14,026.0	7
Sprague River	937	1129	999	423	553	610	684	547	651	949	0	1142	Jun-08	1,142.0	12
State Street	22447	21944	24357	30158	36276	38447	42624	38811	38066	38340	32343	25637	Jan-08	42,624.0	7
Stayton	39716	37489	34248	32656	38800	38321	43247	33981	34833	34184	30112	31379	Jan-08	43,247.0	7
Steamboat	91	112	137	116	116	96	100	99	99	118	112	92	Sep-07	137.4	3
Stevens Road	18994	18286	16103	12201	15900	17483	17085	16330	16163	14879	17540	19330	Jun-08	19,330.0	12
Sutherland	8674	8251	7488	8594	9675	10290	11771	12146	6168	9495	8296	8296	Jan-08	13,301.0	7
Sweet Home	20212	19698	20685	22386	23362	26215	30943	25869	24075	27123	18481	16050	Jan-08	30,943.0	7
Takelma	8918	7925	6704	8628	9895	11575	12245	11109	10843	10166	8378	7702	Jan-08	12,245.0	7
Talent	23871	21994	19094	20731	23547	26317	27204	25802	24355	23526	20563	20462	Jan-08	27,204.0	7
Texum	14,700	10,500	14,400	13,200	13,000	44,000	29,200	31,000	27,700	28,400	28,200	28,400	Dec-07	44,000.0	6
Tiller	770	940	900	1000	1050	1060	1540	1080	1120	1030	870	720	Jan-08	1,540.0	7
Tolo	7000	6200	6200	6500	6500	7000	7000	6600	7100	7000		6200	Mar-08	7,100.0	9
Turkey Hill	9778	9792	6242	6242					10288	10288	8496	9994	Mar-08	10,288.0	9
Umapine	12000	11400	11400						7200	9600	11400		Jul-07	12,000.0	1
Umatilla	13735	12517	10552	11051	9540	10230	11976	9629	8335	8039	9439	12400	Jul-07	13,735.0	1
Vernon	28497	27168	27725	25804	31549	33036	33980	31488	29182	30958	27917	28782	Jan-08	33,980.0	7
Vilas Road	20922	20743	18441	13978	14952	15782	16253	15373	14837	14573	18920	18577	Jul-07	20,922.0	1
Village Green	11805	13950	12639	12628	13791	14126	16757	13933	13613	13932	11475	10665	Jan-08	16,757.0	7
Vine Street	17744	16359	15201	12198	15750	16476	15866	14591	13454	13135	15677	16257	Jul-07	17,744.0	1
Wallowa	3900	2000	2000	2400	2800	3800	3600	3600	2400	2400	2200	1900	Jul-07	3,900.0	1
Warm Springs	701	686	823	823	945	882	1006	888	982	949	782	834	Jan-08	1,006.0	7
Warrenton	15432	14795	14792	16223	16773	17452	19029	17671	17201	17513	14768	14966	Jan-08	19,029.0	7
Wasco	772	744	644	664	992	908	1188	1188	1188	908	796	604	Jan-08	1,188.0	7
Western Kraft	10740	34988	217	32755	34347	8806	35586	21243	48170	9198	17490	42241	Mar-08	48,170.5	9
Weston	11190	10924	11071	9916	8281	3890	4047	3681	3618	3666	4620	11977	Jun-08	11,977.0	12
Westside	14634	14395	12351	12885	14453	15573	17007	15931	14707	14071	13351	12627	Jan-08	17,007.0	7
Weyerhaeuser	10000	10000	9500	9500	10000	10000	10000	10500	10500	9500	10000	10000	Jan-08	10,500.0	7
White City	44421	42941	39985	39026	40285	40199	41250	40843	39193	38854	36429	36694	Jul-07	44,421.0	1
Winchester	27249	26652	25024	25062	27606	25081	28507	23464	25582	24074	25029	23513	Jan-08	28,507.0	7
Winston	7310	6980	5090	6480	7380	7610	12240	7690	7500	6870	6920		Jan-08	12,240.0	7
Youngs Bay	51000	11500	12500		56500	16000	54500	54500	60000	0	52000	12500	Mar-08	60,000.0	9
Total by Month	29	7	5	2	5	8	84	8	5	3	6	6			



Docket No. UE-210  
Exhibit PPL/923  
Witness: C. Craig Paice

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of C. Craig Paice**

**ICNU Data Request Response**

**August 2009**

**BEFORE THE**  
**PUBLIC UTILITY COMMISSION OF OREGON**  
**DOCKET NO. UE 210**  
**ICNU'S RESPONSE TO PACIFICORP'S DATA REQUEST NO. 1.2**

**Data Request No. 1.2:**

See ICNU/200, Schoenbeck/6, lines 14 and 15, please provide the basis for the assumption that “any customer with a demand greater than 2,000 KW was served from a dedicated customer substation.”

**Response to Data Request No. 1.2:**

There were two reasons for selecting 2,000 kW as the break point for a dedicated substation. First, and most important, it resulted in average class loss factors reflective of Mr. Schoenbeck's judgment for Schedule 48T customers. For example, for primary customers, the demand value is almost 2.3% lower than the comparable PacifiCorp value (1.05801 versus 1.08095). In Mr. Schoenbeck's view, this is a reasonable result given the average primary line losses are 2.5%. Similarly, for secondary customers the demand value difference is 1.2% (1.09902 versus 1.11114). It is Mr. Schoenbeck's opinion that this is a reasonable differential given the fact that these customers are served from transformers with lower losses and no secondary and service drop losses are incurred. The second reason was the recognition that service at and beyond this level could not be readily accommodated from a typical primary feeder.





Docket No. UE-210  
Exhibit PPL/924  
Witness: C. Craig Paice

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of C. Craig Paice**

**Schedule 48 Distance Data**

**August 2009**

**Exhibit 1012 - Schedule 48 Customer Distance from Substation**

NAME	HIGHEST KW READ IN BASE PERIOD (07-01- DISTANCE (FEET) 2007 to 06-30-2008)	
Customer 1	4,993	2,276
Customer 2	15,785	4,522
Customer 3	24,861	1,107
Customer 4	19,047	1,376
Customer 5	7,834	2,616
Customer 6	4,791	1,386
Customer 7	13,903	1,274
Customer 8	4,014	1,295
Customer 9	7,834	1,120
Customer 10	3,665	1,722
Customer 11	7,684	11,880
Customer 12	2,689	4,298
Customer 13	3,058	1,188
Customer 14	5,612	1,211
Customer 15	11,259	1,030
Customer 16	2,762	1,644
Customer 17	35,354	1,234
Customer 18	1,525	4,145
Customer 19	6,934	1,304
Customer 20	7,191	953
Customer 21	5,384	1,286
Customer 22	9,393	4,075
Customer 23	1,175	5,117
Customer 24	7,639	1,258
Customer 25	6,474	1,320
Customer 26	11,276	4,628
Customer 27	511	1,677
Customer 28	4,172	1,246
Customer 29	10,080	1,507
Customer 30	1,399	2,059
Customer 31	9,473	1,199
Customer 32	12,090	1,052
Customer 33	2,268	3,640
Customer 34	7,653	1,928
Customer 35	14,831	1,112
Customer 36	10,267	1,517
Customer 37	6,202	1,781
Customer 38	9,768	999
Customer 39	5,429	1,155
Customer 40	818	2,047
Customer 41	9,024	1,150
Customer 42	26,479	1,030
Customer 43	5,928	3,092
Customer 44	12,708	1,726
Customer 45	4,368	1,307
Customer 46	563	9,252
Customer 47	1,780	1,232
Customer 48	24,235	321
Customer 49	6,820	3,480
Customer 50	12,277	1,252
Customer 51	17,529	4,536
Customer 52	22,594	1,165
Customer 53	16,864	4,784
Customer 54	6,086	1,674
Customer 55	9,185	1,398
Customer 56	8,459	1,044
Customer 57	1,443	1,088
Customer 58	9,587	1,660
Customer 59	4,684	1,362
Customer 60	2,790	1,041
Customer 61	9,345	1,405
Customer 62	5,061	7,452
Customer 63	4,552	1,356
Customer 64	10,764	1,180
Customer 65	5,671	867
Customer 66	1,787	16,008
Customer 67	2,102	1,150
Customer 68	8,485	2,285
Customer 69	30,103	1,322
Customer 70	10,021	10,280
Customer 71	5,041	1,541
Customer 72	7,792	926

NAME	HIGHEST KW READ IN BASE PERIOD (07-01- DISTANCE (FEET) 2007 to 06-30-2008)	
Customer 73	6,472	1,351
Customer 74	5,182	1,072
Customer 75	4,063	1,108
Customer 76	9,767	1,441
Customer 77	9,981	1,034
Customer 78	14,614	956
Customer 79	7,907	935
Customer 80	23,232	1,211
Customer 81	7,927	980
Customer 82	8,905	1,584
Customer 83	14,404	4,817
Customer 84	4,903	1,542
Customer 85	2,400	983
Customer 86	5,350	1,149
Customer 87	4,014	3,528
Customer 88	2,468	1,165
Customer 89	10,553	11,034
Customer 90	6,983	211
Customer 91	12,296	1,456
Customer 92	34,195	3,102
Customer 93	31,497	3,220
Customer 94	8,164	9,468
Customer 95	13,326	1,650
Customer 96	1,023	1,601
Customer 97	3,749	1,453
Customer 98	7,024	244
Customer 99	10,502	920
Customer 100	1,380	3,572
Customer 101	3,749	1,119
Customer 102	20,820	1,371
Customer 103	4,176	1,666
Customer 104	9,973	1,400
Customer 105	8,593	1,778
Customer 106	2,562	5,457
Customer 107	10,155	1,472
Customer 108	2,662	1,960
Customer 109	9,457	1,053
Customer 110	1,670	1,430
Customer 111	1,267	3,704
Customer 112	10,435	9,232
Customer 113	9,030	1,137
Customer 114	5,666	1,236
Customer 115	3,944	1,498
Customer 116	37,796	1,140
Customer 117	3,492	8,446
Customer 118	10,577	1,580
Customer 119	21,203	1,367
Customer 120	15,509	1,493
Customer 121	248	3,370
Customer 122	8,426	1,678
Customer 123	9,556	1,029
Customer 124	4,253	1,115
Customer 125	2,976	1,010
Customer 126	12,881	1,476
Customer 127	5,811	1,565
Customer 128	8,938	1,166
Customer 129	2,930	1,261
Customer 130	3,948	1,115
Customer 131	5,680	2,619
Customer 132	19,170	1,757
Customer 133	18,954	5,166
Customer 134	13,763	2,357
Customer 135	26,237	1,764
Customer 136	9,704	4,170
Customer 137	6,459	1,152
Customer 138	10,039	3,074
Customer 139	17,569	1,751
Customer 140	9,991	1,707
Customer 141	5,566	1,518
Customer 142	15,708	1,026
Customer 143	5,026	2,140
Customer 144	10,206	3,300
Customer 145	4,526	2,818
Customer 146	19,520	2,470
Customer 147	4,202	1,598
Customer 148	11,531	1,676

NAME	HIGHEST KW READ IN BASE PERIOD (07-01- DISTANCE (FEET) 2007 to 06-30-2008)	
	Customer 149	6,563
Customer 150	6,681	1,166
Customer 151	2,249	1,116
Customer 152	4,461	1,058
Customer 153	4,915	1,219
Customer 154	5,340	1,282
Customer 155	11,457	1,005
Customer 156	10,945	1,392
Customer 157	4,478	1,434
Customer 158	6,171	1,400
Customer 159	3,431	4,284
Customer 160	2,513	8,964
Customer 161	10,764	1,018
Customer 162	15,212	1,469
Customer 163	5,101	4,219
Customer 164	5,364	4,536
Customer 165	24,510	2,576
Customer 166	10,431	1,588
Customer 167	8,210	1,330
Customer 168	1,787	4,776
Customer 169	15,509	1,824
Customer 170	7,228	1,360
Customer 171	9,373	1,750
Customer 172	3,894	6,594
Customer 173	9,806	274
Customer 174	7,827	15,720
Customer 175	9,528	1,351
Customer 176	1,865	2,106
Customer 177	17,728	9,504
Customer 178	15,686	5,752
Customer 179	2,357	1,879
Customer 180	5,444	3,516
Customer 181	6,423	2,603
Customer 182	7,617	1,415
Customer 183	4,463	1,103
Customer 184	5,033	2,275
Customer 185	6,052	5,634
Customer 186	2,853	1,635
Customer 187	1,390	2,518
Customer 188	1,618	1,628
Customer 189	5,938	2,248
Customer 190	9,512	12,120
Customer 191	9,024	3,751
Customer 192	31,620	1,240
Customer 193	2,068	5,081
Customer 194	15,687	1,041
Customer 195	1,872	5,190
Customer 196	1,389	27,456
Customer 197	4,567	2,088
Customer 198	7,916	3,112
Customer 199	7,862	2,006
Customer 200	12,112	2,409
Customer 201	7,943	4,459
Customer 202	9,512	2,165
Customer 203	9,084	5,677

**Statistics**

Customers with 2 MW or more	72
Customers with 2 MW or more and greater than 0.5 mile from the substation.	54
% of total 2 MW or more	75.0%
Average Miles from Substation for Customers with 2MW or more	1.50



Docket No. UE-210  
Exhibit PPL/1010  
Witness: William R. Griffith

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Reply Testimony of William R. Griffith**

**August 2009**

1 **Q. Are you the same William R. Griffith who previously provided testimony in**  
2 **this docket?**

3 A. Yes, as Exhibit PPL/1000.

4 **Purpose and Summary**

5 **Q. Please explain the purpose of your reply testimony.**

6 A. The purpose of my reply testimony is to present the Company' s proposed rate  
7 spread and rate design reflecting the Company' s reply revenue requirement and  
8 updated cost of service study. In addition, I will respond to the rate spread and  
9 rate design issues raised in the opening testimonies of Staff of the Oregon Public  
10 Utility Commission (“ Staff” ) witness Dr. George Compton, Fred Meyer Stores  
11 witness Mr. Kevin Higgins, and Klamath Water Users Association (“ KWUA” )  
12 witness Mr. Gary Saleba.

13 **Q. Please summarize your testimony.**

14 A. My testimony includes the following:

- 15 • I present the proposed reply rate spread and rate design. The Company  
16 proposes to cap the rate increase to all rate schedules at 1.5 times the overall  
17 net rate increase. The Company' s proposed rate spread reduces cross  
18 subsidization of customer classes through the Rate Mitigation Adjustment  
19 while minimizing overall customer impacts.
- 20 • I present the proposed rates for the new tariff riders described by Company  
21 witness Mr. R. Bryce Dalley. These tariff riders are proposed to recover the  
22 costs associated with the regulatory assets proposed for separate amortization  
23 by Staff witness Mr. Dustin Ball in his opening testimony.

- 1           • In response to issues raised by Dr. Compton, I explain the direct relationship  
2           between unbundled costs shown in the cost of service study and the  
3           Company’ s unbundled retail rates. I provide further discussion on  
4           transmission and ancillary service costs and rates.
- 5           • I state concerns with Dr. Compton’ s suggestions to implement additional  
6           seasonal and time-of-use rates for residential and large industrial customers.  
7           The Company’ s current tariffs include options for these types of pricing  
8           mechanisms.
- 9           • I respond to Dr. Compton’ s proposal concerning the residential basic charge.  
10          The Company’ s proposed residential basic charge is reasonable and compares  
11          favorably with the residential basic charges of other electric utilities in  
12          Oregon.
- 13          • I respond to Mr. Higgins’ proposal to include a demand component in  
14          Schedule 200, which the Company believes could be viewed as a barrier to  
15          direct access for low-load-factor customers.
- 16          • I respond to Mr. Saleba’ s claim that the Company may set irrigation rates to  
17          less than 100 percent cost of service and explain the revised proposed net rate  
18          increase for irrigation customers which caps the increase for these customers  
19          at 1.5 times the overall average percentage increase.

20   **Reply Exhibits**

21   **Q.    Have you prepared exhibits showing the Company’ s revised rate spread and**  
22   **rate design based on the updates made in this reply filing?**

23   A.    Yes. Exhibit PPL/1011 shows the impact of the Company’ s updated filing,



1 including monthly billing comparisons for customers at various usage levels.

2 This exhibit is an update to my direct Exhibit PPL/1002.

3 Exhibit PPL/1012 shows the revised rates. This exhibit is an update to my  
4 direct Exhibit PPL/1003, however Exhibit PPL/1012 includes greater detail as  
5 discussed later in my testimony.

6 **Q. What are the Company’ s rate spread proposals in this reply filing?**

7 A. As a result of the revised revenue requirement and cost of service (“ COS” )  
8 results, the Company proposes to cap the net rate increase to all rate schedules at  
9 1.5 times the proposed overall percentage increase in this case. The Company’ s  
10 proposed rate spread reduces cross subsidization of customer classes by  
11 minimizing the Rate Mitigation Adjustment where possible while minimizing  
12 overall customer impacts. The Company believes that this will appropriately  
13 reflect marginal cost of service results while mitigating rate impacts on  
14 customers.

15 **Q. Have you prepared rates for the new tariff riders described in the reply**  
16 **testimony of Company witness Mr. R. Bryce Dalley?**

17 A. Yes. Rates for proposed Schedules 193, 194 and 195 are shown in my Exhibit  
18 PPL/1011, Griffith/3 in columns 8, 9 and 10. Schedule 193 is proposed to  
19 implement the surcharge for the tariff rider to recover the balance associated with  
20 the Transition Plan – Oregon regulatory asset. Schedule 194 is proposed to  
21 implement the surcharge for the tariff rider to recover the balance associated with  
22 the MidAmerican Energy Holdings Company (“ MEHC” ) Change-in-Control  
23 Severance regulatory asset. Schedule 195 is proposed to implement the surcharge

1 for the tariff rider to recover the balance associated with the Grid West regulatory  
2 asset.

3 Rates for each of these new tariff riders are proposed to be applied on an  
4 equal cents per kilowatt-hour basis. The surcharges are designed to recover the  
5 associated balancing accounts with interest over the remaining life of each  
6 regulatory asset, with the exception of Schedule 193 which is designed to recover  
7 the Transition Plan-Oregon balance over one year, rather than the asset' s  
8 remaining life of six months. At the conclusion of this docket, the Company  
9 proposes that tariffs for each these riders would be filed and adopted by the  
10 Commission in the tariff compliance filing for this docket.

11 **Q. Please summarize the estimated effect of the proposed price change on net**  
12 **rates.**

13 A. The net rate increase for all customer classes has decreased or remained the same  
14 as the net rate increases proposed in the Company' s initial filing. Consistent with  
15 the results of the updated cost of service study presented by Company witness Mr.  
16 C. Craig Paice, the net increase for lighting and irrigation customers have  
17 decreased significantly from the initial filing.

18 **Response to Staff witness Dr. George R. Compton**

19 **Q. Please discuss the issues raised by Dr. Compton regarding the connection**  
20 **between functionalized costs and functionalized revenues.**

21 A. Dr. Compton indicates that there is not a clear connection between functionalized  
22 costs and functionalized revenues in the Company' s rate design exhibits. He  
23 states that “ Based upon cursory comparisons of PacifiCorp' s rate design

1 worksheets and COS results, the [functionalized revenue] targets have not always  
2 been closely achieved.” Staff 1100/Compton 32. In particular, he focuses on the  
3 Transmission & Ancillary Services Charge revenues.

4 **Q. Do you agree with Dr. Compton’ s assertions?**

5 A. No. The method of rate design in the Company’ s filed case is correct and is  
6 consistent with the rate design methodology utilized by the Company since the  
7 implementation of direct access in 2001. This method complies with the  
8 Commission’ s rules to functionalize and unbundle rates and is appropriate. The  
9 updated rate design in Exhibit PPL/1012 follows the same methodology.

10 **Q. Please explain the difference between the revenues collected through the**  
11 **Transmission & Ancillary Services Charge as shown in the rate design**  
12 **exhibit and the total transmission and ancillary services target revenues as**  
13 **shown in the cost of service exhibit.**

14 A. The Transmission & Ancillary Service Charge rate in the Company’ s Oregon  
15 retail tariffs is not presently designed to collect the total transmission costs shown  
16 in the cost of service Unbundled Revenue Requirement Allocation by Rate  
17 Schedule exhibit (Exhibit PPL/917 in this reply filing). As indicated in my direct  
18 testimony PPL/1000, Griffith 5, lines 21-23, only the Federal Energy Regulatory  
19 Commission (“ FERC” )-related transmission and ancillary services are included in  
20 each proposed delivery service schedule’ s Transmission & Ancillary Services  
21 Charge rate. Non-FERC transmission costs are not collected through this charge  
22 but are collected through the Company’ s distribution charges.

1 **Q. Why are Non-FERC transmission services collected through the distribution**  
2 **charges rather than through the Transmission & Ancillary Services Charge?**

3 A. The Transmission & Ancillary Services Charge is designed to recover only those  
4 transmission and ancillary services that customers can avoid if they elect to take  
5 direct access service. Those services are FERC-related transmission and ancillary  
6 services costs. Non-FERC transmission costs cannot be avoided by customers  
7 choosing direct access and, therefore, they are not included in the Transmission &  
8 Ancillary Services Charge. Instead, they are included in the distribution charges  
9 which are paid by all of the Company's customers.

10 **Q. Is this calculation a departure from the way rates have been calculated in the**  
11 **past?**

12 A. No. Non-FERC transmission costs have been collected through the distribution  
13 charges since rates were unbundled in UE 116 with the implementation of direct  
14 access.

15 **Q. Are you sponsoring an exhibit that shows the breakout of transmission costs**  
16 **into FERC and non-FERC transmission costs?**

17 A. Yes. Exhibit PPL/1013 is a worksheet from the reply cost of service model  
18 prepared by Company witness Mr. Paice. It shows the breakout into FERC and  
19 non-FERC transmission costs of total transmission costs as identified on line 28  
20 of page 1 in the reply cost of service Exhibit PPL/917 sponsored by Mr. Paice.  
21 This transmission cost breakout worksheet was included as part of the cost of  
22 service model provided at the time of the initial filing as well as part of the rate  
23 design model provided at the time of the initial filing. The worksheet was not

1 included as a printed exhibit for simplicity sake.

2 **Q. Do the revenues from the proposed Transmission & Ancillary Services**  
3 **Charge tie to the cost of FERC transmission plus the cost of ancillary**  
4 **Services?**

5 A. Yes. Looking specifically at Schedule 23, Secondary in my billing determinants  
6 Exhibit PPL/1012, column 6, the proposed revenues for Transmission &  
7 Ancillary Services is \$3.788 million. This is approximately equal to the total  
8 costs for FERC transmission plus ancillary services for this class of \$3.783  
9 million. The small difference is due to rounding. This target Transmission &  
10 Ancillary Services revenue of \$3.783 million is the sum of the following: the  
11 Schedule 23 Secondary FERC transmission target revenues from Exhibit  
12 PPL/1013, row 5, columns B and C totaling \$2.924 million and the Schedule 23  
13 Secondary ancillary services target revenues from Exhibit PPL/917 row 30,  
14 column B totaling \$0.859 million.

15 **Q. Can the total target revenues to be collected through the Transmission &**  
16 **Ancillary Services Charge be seen in your exhibits?**

17 A. Yes. My reply billing determinants Exhibit PPL/1012 show the direct  
18 relationship between unbundled costs and unbundled rates. In addition to  
19 reflecting the Company' s revised revenue requirement and cost of service study,  
20 this exhibit shows the target unbundled revenue requirement for each class in  
21 column 8.

22 **Q. Was this level of detail available in the initial filing?**

23 A. Yes. A detailed billing determinant worksheet was included in the rate design

1 model, containing all formulas, and was provided to all parties at the time of the  
2 initial filing. My direct testimony included Exhibit PPL/1003 which displayed  
3 the present rates and revenues in comparison to proposed rates and revenues in an  
4 easier to view format for comparison purposes. Previously, detailed background  
5 information and calculation formulas were available only in the electronic rate  
6 design model. In the future, although the Company did not encounter this issue in  
7 past general rate cases, in addition to the information previously provided in the  
8 electronic exhibit, the Company is willing to provide a more detailed exhibit in  
9 printed format similar to Exhibit PPL/1012 if parties believe it will facilitate  
10 understanding of the proposed rate design.

11 **Q. Dr. Compton suggests that elevating the residential tail-block rate in the**  
12 **summer would be one way to better capture cost causation in the Company' s**  
13 **rates; however, he does not suggest changing the rate design at this time. Do**  
14 **you have any comment on this general proposal?**

15 A. Yes. The Company does not support increasing the tail-block rate for Oregon  
16 residential customers in the summer. The current level of inverted blocks in  
17 residential rates provides a clear price signal to larger users throughout the year  
18 without creating excessive revenue volatility. The main purpose of the inverted  
19 residential rate structure is to send price signals to all customers about the higher  
20 cost of increasing usage. Given the presence of a year round inverted rate in  
21 Oregon, the summer inverted residential rate that the Company has implemented  
22 in Utah, and that Dr. Compton appears to suggest here for Oregon, is not  
23 necessary in Oregon. Moreover, the Company agrees with CUB witness Mr. Bob

1 Jenks, who indicates that “ CUB urges the Commission to adopt the rate design  
2 proposed by the Company.” CUB/100, Jenks/26.

3 **Q. Dr. Compton also suggests a super-peak time-of-use rate for large industrial**  
4 **customers. In this case, he appears to recommend the adoption of some form**  
5 **of this rate design in this case. What is the Company’ s perspective on this**  
6 **proposal?**

7 A. The Company does not support the adoption of a super-peak time-of-use rate for  
8 large industrial customers at this time. The Company believes that the current  
9 options available to large industrial customers are sufficient, and we do not  
10 believe that it is appropriate to single out large general service customers with this  
11 proposal. In addition, in view of the current economy, we believe that it is not a  
12 good time to implement a super-peak pricing mechanism for our commercial and  
13 industrial customers given that it is difficult to predict the potential implication of  
14 such a change on customers.

15 **Q. Are seasonal rates and time-of-use options available for residential and large**  
16 **industrial customers today?**

17 A. Yes. Residential customers along with small general service and small irrigation  
18 customers have seasonal, time-of-use rates available under the Portfolio Time-of-  
19 Use Supply Service option Schedule 210. In addition, all non-residential  
20 customers, including large general service customers, have the option of choosing  
21 market-based Standard Offer Supply Service Schedule 220, which includes a time  
22 of use structure, or choosing direct access supply from an electricity service  
23 supplier (“ ESS” ).

1 **Q. What has Dr. Compton proposed regarding the residential basic charge?**

2 A. Dr. Compton proposes a residential basic charge of at most \$8.00. He indicates  
3 that if the Company' s final revenue requirement is " appreciably less" than the  
4 filed amount, the basic charge should remain at its current level of \$7.50.

5 **Q. Does the Company agree with Dr. Compton' s proposal?**

6 A. No. The Company believes that its filed residential basic charge of \$8.50 is  
7 reasonable. As indicated in my direct testimony, the Company' s proposed basic  
8 charge would result in a basic charge that is ranked in the bottom half of basic  
9 charges for 23 electric utilities surveyed by the Company in Oregon.

10 **Response to Fred Meyer Stores Witness Mr. Kevin C. Higgins**

11 **Q. Please summarize Mr. Higgins' proposal regarding Schedule 200, Schedule**  
12 **201 and the direct access transition adjustments.**

13 A. Mr. Higgins recommends incorporating a demand component into the new  
14 Schedule 200 rate for customers who are demand billed, and he proposes charging  
15 Schedule 200 rates to direct access customers rather than subtracting those rates  
16 from the transition adjustments in Schedules 294 and 295 as occurs at present. He  
17 proposes that Schedule 201 rates for net power costs be subtracted from the  
18 transition adjustment rates and that direct access customers not pay the Schedule  
19 201 rates, consistent with the Company' s proposal.

20 **Q. Does the Company agree with Mr. Higgins' proposal to incorporate a**  
21 **demand component into the Schedule 200 rate?**

22 A. At first glance, Mr. Higgins' Schedule 200 demand/energy charge structure  
23 proposal seems plausible. However, on closer examination, the proposal to



1 include a demand component in Schedule 200 would mean that high-load-factor  
2 customers would get more benefit by electing direct access than would low-load-  
3 factor customers. The Company does not believe that a proposal which provides  
4 greater benefits to high-load-factor customers who choose direct access is  
5 consistent with the intent of Senate Bill 1149 to provide fair access to electricity  
6 markets for all consumers. Such a proposal could be viewed as a barrier to direct  
7 access for low-load-factor customers that does not exist today.

8 **Response to KWUA Witness Mr. Gary Saleba**

9 **Q. Please summarize the testimony of KWUA witness Mr. Saleba.**

10 A. Mr. Saleba is concerned with the magnitude of the proposed increase to Schedule  
11 41 irrigation rates, and he suggests that it is standard practice for utilities to set  
12 rates for irrigation below 100 percent of cost of service.

13 **Q. Do you agree with Mr. Saleba's claim that it is standard practice for utilities**  
14 **to set rates for irrigation customers at levels below 100 percent cost of**  
15 **service?**

16 A. No. It is not standard practice in Oregon. Base rates in Oregon must be set to  
17 reflect the unbundled cost of serving that customer class. These requirements are  
18 clearly specified in Oregon rule OAR 860, Division 38, which requires the  
19 Company to charge rates for each customer class to recover the costs to serve that  
20 customer class. As a result, the base rates for all customers, including irrigation  
21 customers, must be set at 100 percent of the cost to serve that class.

1    **Q.    Has the Company revised the proposed rate increase to Schedule 41 in this**  
2           **reply filing?**

3    A.    Yes. As a result of the updated cost of service results and in an effort to reduce  
4           the subsidization of irrigation customers through the current Rate Mitigation  
5           Adjustment, the Company has proposed to cap the overall increase to Schedule 41  
6           at 1.5 times the overall average. This results in a proposed net rate increase for  
7           Schedule 41 that has been significantly reduced from the increase filed in the  
8           Company' s direct case.

9    **Q.    Does this conclude your reply testimony?**

10   A.    Yes.



Docket No. UE-210  
Exhibit PPL/1011  
Witness: William R. Griffith

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of William R. Griffith  
Estimated Effects of the Proposed Rates**

**August 2009**

Table 1011-1  
PACIFIC POWER & LIGHT COMPANY  
ESTIMATED EFFECT OF PROPOSED PRICE CHANGE  
ON REVENUES FROM ELECTRIC SALES TO ULTIMATE CONSUMERS  
DISTRIBUTED BY RATE SCHEDULES IN OREGON  
FORECAST 12 MONTHS ENDED DECEMBER 31, 2010

Line No.	Description (1)	Pre Sch No.	Pro Sch No.	No. of Cust (4)	MWh (5)	Present Revenues (\$000)			Proposed Revenues (\$000)			Change			Line No.	
						Base Rates <sup>1</sup> (6)	Adders <sup>2</sup> (7)	Net Rates (8)	Base Rates (9)	Adders <sup>2</sup> (10)	Net Rates (11)	Base Rates (\$000) (12)	Adders <sup>2</sup> (13)	Net Rates (\$000) (14)		Base Rates % <sup>3</sup> (15)
1	Residential	4	4	478,485	5,435,846	\$480,018	\$18,970	\$498,988	\$511,386	\$18,807	\$530,193	\$31,368	6.5%	\$31,205	6.3%	1
2	Total Residential			478,485	5,435,846	\$480,018	\$18,970	\$498,988	\$511,386	\$18,807	\$530,193	\$31,368	6.5%	\$31,205	6.3%	2
<b>Commercial &amp; Industrial</b>																
3	Gen. Svc. < 31 kW	23	23	74,055	1,013,941	\$92,485	(\$2,688)	\$89,797	\$99,316	\$2,038	\$101,354	\$6,831	7.4%	\$11,557	12.9%	3
4	Gen. Svc. 31 - 200 kW	28	28	10,101	2,045,065	\$128,645	\$14,255	\$142,900	\$143,019	\$13,068	\$156,087	\$14,374	11.2%	\$13,187	9.2%	4
5	Gen. Svc. 201 - 999 kW	30	30	853	1,378,646	\$80,753	\$6,369	\$87,122	\$89,575	\$5,597	\$95,172	\$8,822	10.9%	\$8,050	9.2%	5
6	Large General Service ≥ 1,000 kW	48	48	215	2,643,901	\$134,416	\$3,542	\$137,958	\$151,046	\$4,602	\$155,648	\$16,630	12.5%	\$17,690	12.9%	6
7	Partial Req. Svc. ≥ 1,000 kW	47	47	7	571,965	\$26,499	\$767	\$27,266	\$29,935	\$996	\$30,931	\$3,436	12.5%	\$3,665	12.9%	7
8	Agricultural Pumping Service	41	41	6,108	136,792	\$14,533	(\$3,071)	\$11,462	\$15,579	(\$2,637)	\$12,942	\$1,046	7.2%	\$1,480	12.9%	8
9	Agricultural Pumping - Other	33	33	2,062	118,046	\$3,839	\$344	\$4,183	\$3,665	\$385	\$4,050	(\$174)	-4.5%	(\$133)	-3.2%	9
10	Total Commercial & Industrial			93,401	7,908,356	\$481,170	\$19,518	\$500,688	\$532,135	\$24,049	\$556,184	\$50,965	10.6%	\$55,496	11.1%	10
<b>Lighting</b>																
11	Outdoor Area Lighting Service	15	15	7,404	10,466	\$1,321	\$132	\$1,453	\$1,453	\$134	\$1,587	\$132	10.0%	\$134	9.2%	11
12	Street Lighting Service	50	50	287	10,738	\$1,179	\$124	\$1,303	\$1,253	\$128	\$1,381	\$74	6.3%	\$78	6.0%	12
13	Street Lighting Service HPS	51	51	686	16,085	\$2,847	\$270	\$3,117	\$3,029	\$275	\$3,304	\$182	6.4%	\$187	6.0%	13
14	Street Lighting Service	52	52	79	1,186	\$135	\$14	\$149	\$144	\$14	\$158	\$9	6.7%	\$9	6.0%	14
15	Street Lighting Service	53	53	250	9,316	\$593	\$75	\$668	\$632	\$70	\$702	\$39	6.6%	\$34	5.1%	15
16	Recreational Field Lighting	54	54	105	816	\$71	\$6	\$77	\$75	\$6	\$81	\$4	5.6%	\$4	5.2%	16
17	Total Public Street Lighting			8,811	48,607	\$6,146	\$621	\$6,767	\$6,586	\$627	\$7,213	\$440	7.2%	\$446	6.6%	17
18	Total Sales to Ultimate Consumers			580,697	13,392,809	\$967,334	\$39,109	\$1,006,443	\$1,050,107	\$43,483	\$1,093,590	\$82,773	8.6%	\$87,147	8.7%	18
19	Employee Discount				18,481	(\$403)	(\$16)	(\$419)	(\$430)	(\$16)	(\$446)	(\$27)		(\$27)		19
20	Total Sales with Employee Discount			580,697	13,392,809	\$966,931	\$39,093	\$1,006,024	\$1,049,677	\$43,467	\$1,093,144	\$82,746	8.6%	\$87,120	8.7%	20
21	AGA Revenue					\$2,380	\$2,380	\$2,380	\$2,380		\$2,380	\$0		\$0		21
22	Total Sales with Employee Discount and AGA			580,697	13,392,809	\$969,311	\$39,093	\$1,008,404	\$1,052,057	\$43,467	\$1,095,524	\$82,746	8.5%	\$87,120	8.6%	22

<sup>1</sup> Includes the effects of the Transition Adjustment Mechanism for January 1, 2010.

<sup>2</sup> Excludes effects of the Low Income Bill Payment Assistance Charge (Sch. 91), BPA Credit (Sch. 98), Public Purpose Charge (Sch. 290) and Energy Conservation Charge (Sch. 297).

<sup>3</sup> Percentages shown for Schedules 48 and 47 reflect the combined rate change for both schedules

Table 1011-2  
PACIFIC POWER & LIGHT COMPANY  
ESTIMATED REVENUES OF ADJUSTMENT SCHEDULES  
FORECAST 12 MONTHS ENDED DECEMBER 31, 2010

Line No.	Description	Pre Sch No.	Pro Sch No.	Indep. Eval. 93	Prop. Sales 96	Interv. Fndg. 97	Tax Adj 102	OR Trns Plan 193	MEHC Sev 194	Grid West 195	RAC Deter. 203	Shop. Inctv. 296	RMA 299	RMA 299	Total	
No.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
		No.	No.	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)
<b>Residential</b>																
1	Residential	4	4	\$381	(\$544)	\$0	\$10,817	\$815	\$870	\$163	\$5,218	\$0	\$3,098	\$1,087	\$18,970	\$18,807
2	<b>Total Residential</b>															
<b>Commercial &amp; Industrial</b>																
3	Gen. Svc. < 31 kW	23	23	\$71	(\$101)	\$0	\$2,017	\$152	\$163	\$31	\$993	\$0	(\$5,668)	(\$1,288)	(\$2,688)	\$2,038
4	Gen. Svc. 31 - 200 kW	28	28	\$144	(\$205)	\$0	\$4,070	\$307	\$327	\$61	\$1,963	\$82	\$8,201	\$6,319	\$14,255	\$13,068
5	Gen. Svc. 201 - 999 kW	30	30	\$96	(\$138)	\$0	\$2,744	\$207	\$221	\$41	\$1,296	\$55	\$2,316	\$1,075	\$6,369	\$5,597
6	Large General Service >= 1,000 kW	48	48	\$185	(\$264)	\$0	\$5,261	\$397	\$424	\$80	\$2,300	\$0	(\$3,940)	(\$3,781)	\$3,542	\$4,602
7	Partial Req. Svc. >= 1,000 kW	47	47	\$40	(\$57)	\$0	\$1,138	\$86	\$92	\$17	\$498	\$0	(\$852)	(\$818)	\$767	\$996
8	Agricultural Pumping Service	41	41	\$10	(\$14)	\$0	\$272	\$21	\$22	\$4	\$131	\$3	(\$3,473)	(\$3,086)	(\$3,071)	(\$2,637)
9	Agricultural Pumping - Other	33	33	\$8	(\$12)	\$0	\$235	\$18	\$19	\$4	\$113	\$0	\$0	\$0	\$344	\$385
10	<b>Total Commercial &amp; Industrial</b>			\$554	(\$791)	\$0	\$15,737	\$1,188	\$1,268	\$238	\$7,294	\$140	(\$3,416)	(\$1,579)	\$19,518	\$24,049
<b>Lighting</b>																
11	Outdoor Area Lighting Service	15	15	\$1	(\$1)	\$0	\$22	\$1	\$1	\$0	\$5	\$0	\$105	\$105	\$132	\$134
12	Street Lighting Service	50	50	\$1	(\$1)	\$0	\$21	\$2	\$2	\$0	\$5	\$0	\$98	\$98	\$124	\$128
13	Street Lighting Service HPS	51	51	\$1	(\$2)	\$0	\$32	\$2	\$3	\$0	\$11	\$0	\$228	\$228	\$270	\$275
14	Street Lighting Service	52	52	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$1	\$0	\$11	\$11	\$14	\$14
15	Street Lighting Service	53	53	\$1	(\$1)	\$0	\$19	\$1	\$1	\$0	\$2	\$0	\$54	\$54	\$75	\$70
16	Recreational Field Lighting	54	54	\$0	\$0	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$4	\$4	\$6	\$6
17	<b>Total Public Street Lighting</b>			\$4	(\$5)	\$0	\$98	\$6	\$7	\$0	\$24	\$0	\$500	\$493	\$621	\$627
18	<b>Total</b>			\$939	(\$1,340)	\$0	\$26,652	\$2,009	\$2,145	\$401	\$12,536	\$140	\$182	\$1	\$39,109	\$43,483
19	<b>Employee Discount</b>			\$0	\$0	\$0	(\$9)	(\$1)	(\$1)	\$0	(\$4)	\$0	(\$3)	(\$1)	(\$16)	(\$16)
20	<b>Total Sales with Employee Discount</b>			\$939	(\$1,340)	\$0	\$26,643	\$2,008	\$2,144	\$401	\$12,532	\$140	\$179	\$0	\$39,093	\$43,467

Table 1011-3  
PACIFIC POWER & LIGHT COMPANY  
PRESENT AND PROPOSED RATES OF ADJUSTMENT SCHEDULES  
FORECAST 12 MONTHS ENDED DECEMBER 31, 2010

Line No.	Description	Pre Sch No.	Pro Sch No.	Indep. Eval. 93	Prop. Sales 96	Interv. Fndg. 97	Tax Adj 102	OR Trns Plan 193	MEHC Sev 194	Grid West 195	RAC Defect. 203	Shop. Inctv. 296	RMA 299	RMA 299
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(14)
		No.	¢/kWh	¢/kWh	¢/kWh	¢/kWh	¢/kWh	¢/kWh	¢/kWh	¢/kWh	¢/kWh	¢/kWh	¢/kWh	¢/kWh
			PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRO	PRE	PRO
<b>Residential</b>														
1	Residential	4	4	0.007	(0.010)	0.000	0.199	0.015	0.016	0.003	0.096	0.000	0.057	0.020
<b>Commercial &amp; Industrial</b>														
2	Gen. Svc. < 31 kW	23	23	0.007	(0.010)	0.000	0.199	0.015	0.016	0.003	0.098	0.000	(0.559)	(0.127)
3	Gen. Svc. 31 - 200 kW	28	28	0.007	(0.010)	0.000	0.199	0.015	0.016	0.003	0.096	0.004	0.401	0.309
4	Gen. Svc. 201 - 999 kW	30	30	0.007	(0.010)	0.000	0.199	0.015	0.016	0.003	0.094	0.004	0.168	0.078
5	Larges General Service ≥= 1,000 kW	48	48	0.007	(0.010)	0.000	0.199	0.015	0.016	0.003	0.087	0.000	(0.149)	(0.143)
6	Partial Req. Svc. ≥= 1,000 kW	47	47	0.007	(0.010)	0.000	0.199	0.015	0.016	0.003	0.087	0.000	(0.149)	(0.143)
7	Agricultural Pumping Service	41	41	0.007	(0.010)	0.000	0.199	0.015	0.016	0.003	0.096	0.004	(2.539)	(2.256)
8	Agricultural Pumping - Other	33	33	0.007	(0.010)	0.000	0.199	0.015	0.016	0.003	0.096	0.000	0.000	0.000
<b>Lighting</b>														
9	Outdoor Area Lighting Service	15	15	0.007	(0.010)	0.000	0.199	0.015	0.016	0.003	0.053	0.000	1.002	1.002
10	Street Lighting Service	50	50	0.007	(0.010)	0.000	0.199	0.015	0.016	0.003	0.044	0.000	0.908	0.908
11	Street Lighting Service HPS	51	51	0.007	(0.010)	0.000	0.199	0.015	0.016	0.003	0.069	0.000	1.416	1.416
12	Street Lighting Service	52	52	0.007	(0.010)	0.000	0.199	0.015	0.016	0.003	0.053	0.000	0.920	0.920
13	Street Lighting Service	53	53	0.007	(0.010)	0.000	0.199	0.015	0.016	0.003	0.023	0.000	0.580	0.508
14	Recreational Field Lighting	54	54	0.007	(0.010)	0.000	0.199	0.015	0.016	0.003	0.039	0.000	0.539	0.539

**Pacific Power & Light Company**  
**Monthly Billing Comparison**  
**Delivery Service Schedule 4 + Cost-Based Supply Service**  
**Residential Service**

kWh	Monthly Billing*			Percent Difference
	Present Price**	GRC Proposed Price	Difference	
100	\$15.93	\$17.33	\$1.40	8.79%
200	\$23.62	\$25.39	\$1.77	7.49%
300	\$31.32	\$33.47	\$2.15	6.86%
400	\$39.02	\$41.55	\$2.53	6.48%
500	\$46.72	\$49.61	\$2.89	6.19%
600	\$55.08	\$58.46	\$3.38	6.14%
700	\$63.45	\$67.31	\$3.86	6.08%
800	\$71.82	\$76.17	\$4.35	6.06%
900	\$80.18	\$85.01	\$4.83	6.02%
<b>950</b>	<b>\$84.37</b>	<b>\$89.45</b>	<b>\$5.08</b>	<b>6.02%</b>
1,000	\$88.55	\$93.87	\$5.32	6.01%
1,100	\$97.94	\$103.90	\$5.96	6.09%
1,200	\$107.30	\$113.91	\$6.61	6.16%
1,300	\$116.68	\$123.94	\$7.26	6.22%
1,400	\$126.06	\$133.96	\$7.90	6.27%
1,500	\$135.43	\$143.98	\$8.55	6.31%
1,600	\$144.79	\$153.99	\$9.20	6.35%
2,000	\$182.29	\$194.08	\$11.79	6.47%
3,000	\$276.03	\$294.29	\$18.26	6.62%
4,000	\$369.77	\$394.49	\$24.72	6.69%
5,000	\$463.51	\$494.70	\$31.19	6.73%

\* Net rate including Schedules 91, 98, 290 and 297.

\*\*Includes the effects of the Transition Adjustment Mechanism for January 1, 2010.

Note: Assumed average billing cycle length of 30.42 days.



**Pacific Power & Light Company**  
**Monthly Billing Comparison**  
**Delivery Service Schedule 23 + Cost-Based Supply Service**  
**General Service - Secondary Delivery Voltage**

kW Load Size	kWh	Monthly Billing*						Percent Difference	
		Present Price**		GRC Proposed Price		Single Phase	Three Phase	Single Phase	Three Phase
		Single Phase	Three Phase	Single Phase	Three Phase				
5	500	\$55	\$63	\$62	\$72	12.97%	13.27%	12.97%	13.27%
	750	\$74	\$82	\$84	\$93	12.77%	13.01%		
	1,000	\$93	\$101	\$105	\$115	12.65%	12.85%		
	1,500	\$132	\$140	\$148	\$158	12.51%	12.66%		
10	1,000	\$93	\$101	\$105	\$115	12.65%	12.85%	12.65%	12.85%
	2,000	\$170	\$178	\$191	\$201	12.44%	12.56%		
	3,000	\$247	\$255	\$277	\$287	12.35%	12.44%		
	4,000	\$311	\$320	\$350	\$359	12.30%	12.37%		
20	4,000	\$336	\$345	\$378	\$388	12.47%	12.53%	12.47%	12.53%
	6,000	\$466	\$474	\$523	\$533	12.36%	12.41%		
	8,000	\$595	\$604	\$669	\$678	12.31%	12.34%		
	10,000	\$725	\$733	\$814	\$823	12.27%	12.30%		
30	9,000	\$710	\$718	\$799	\$808	12.45%	12.48%	12.45%	12.48%
	12,000	\$904	\$913	\$1,016	\$1,026	12.37%	12.40%		
	15,000	\$1,099	\$1,107	\$1,234	\$1,243	12.32%	12.34%		
	18,000	\$1,293	\$1,301	\$1,452	\$1,461	12.29%	12.31%		
31	9,300	\$735	\$743	\$826	\$836	12.45%	12.48%	12.45%	12.48%
	12,400	\$935	\$944	\$1,051	\$1,060	12.38%	12.40%		
	15,500	\$1,136	\$1,144	\$1,276	\$1,285	12.33%	12.35%		
	18,600	\$1,337	\$1,345	\$1,501	\$1,510	12.29%	12.31%		

\* Net rate including Schedules 91, 290 and 297.

\*\*Includes the effects of the Transition Adjustment Mechanism for January 1, 2010.

**Pacific Power & Light Company**  
**Monthly Billing Comparison**  
**Delivery Service Schedule 23 + Cost-Based Supply Service**  
**General Service - Primary Delivery Voltage**

kW Load Size	kWh	Monthly Billing*						Percent Difference	
		Present Price**		GRC Proposed Price		Single Phase	Three Phase	Single Phase	Three Phase
		Single Phase	Three Phase	Single Phase	Three Phase				
5	500	\$54	\$62	\$61	\$70	12.67%	12.98%		
	750	\$73	\$81	\$82	\$91	12.40%	12.68%		
	1,000	\$91	\$100	\$103	\$112	12.26%	12.49%		
	1,500	\$129	\$137	\$144	\$154	12.09%	12.27%		
10	1,000	\$91	\$100	\$103	\$112	12.26%	12.49%		
	2,000	\$166	\$174	\$186	\$195	12.00%	12.14%		
	3,000	\$241	\$249	\$269	\$279	11.90%	12.00%		
	4,000	\$304	\$312	\$340	\$349	11.83%	11.92%		
20	4,000	\$328	\$337	\$368	\$377	12.03%	12.10%		
	6,000	\$455	\$463	\$509	\$518	11.90%	11.96%		
	8,000	\$581	\$589	\$649	\$659	11.83%	11.88%		
	10,000	\$707	\$715	\$790	\$800	11.79%	11.82%		
30	9,000	\$693	\$701	\$776	\$786	12.00%	12.03%		
	12,000	\$882	\$890	\$987	\$997	11.91%	11.93%		
	15,000	\$1,071	\$1,080	\$1,198	\$1,208	11.85%	11.87%		
	18,000	\$1,261	\$1,269	\$1,410	\$1,419	11.81%	11.83%		

\* Net rate including Schedules 91, 290 and 297.

\*\*Includes the effects of the Transition Adjustment Mechanism for January 1, 2010.

**Pacific Power & Light Company**  
**Monthly Billing Comparison**  
**Delivery Service Schedule 28 + Cost-Based Supply Service**  
**Large General Service - Secondary Delivery Voltage**

kW Load Size	kWh	Monthly Billing*		Percent Difference
		Present Price**	GRC Proposed Price	
15	4,500	\$338	\$370	9.49%
	7,500	\$511	\$554	8.42%
	10,500	\$685	\$739	7.89%
31	9,300	\$685	\$748	9.20%
	15,500	\$1,043	\$1,129	8.21%
	21,700	\$1,400	\$1,508	7.71%
40	12,000	\$880	\$960	9.13%
	20,000	\$1,343	\$1,452	8.16%
	28,000	\$1,796	\$1,933	7.64%
60	18,000	\$1,315	\$1,434	9.05%
	30,000	\$1,997	\$2,158	8.06%
	42,000	\$2,677	\$2,880	7.56%
80	24,000	\$1,741	\$1,897	8.95%
	40,000	\$2,648	\$2,859	7.98%
	56,000	\$3,554	\$3,821	7.50%
100	30,000	\$2,164	\$2,357	8.88%
	50,000	\$3,298	\$3,559	7.93%
	70,000	\$4,431	\$4,762	7.46%
200	60,000	\$4,262	\$4,636	8.76%
	100,000	\$6,529	\$7,041	7.84%
	140,000	\$8,796	\$9,447	7.39%

\* Net rate including Schedules 91, 290 and 297.

\*\*Includes the effects of the Transition Adjustment Mechanism for January 1, 2010.

**Pacific Power & Light Company**  
**Monthly Billing Comparison**  
**Delivery Service Schedule 28 + Cost-Based Supply Service**  
**Large General Service - Primary Delivery Voltage**

kW Load Size	kWh	Monthly Billing*		Percent Difference
		Present Price**	GRC Proposed Price	
15	4,500	\$340	\$364	6.87%
	7,500	\$505	\$536	6.10%
	10,500	\$669	\$708	5.72%
31	9,300	\$686	\$731	6.56%
	15,500	\$1,026	\$1,086	5.89%
	21,700	\$1,364	\$1,439	5.54%
40	12,000	\$880	\$938	6.50%
	20,000	\$1,319	\$1,396	5.84%
	28,000	\$1,748	\$1,844	5.46%
60	18,000	\$1,315	\$1,402	6.56%
	30,000	\$1,962	\$2,076	5.83%
	42,000	\$2,606	\$2,748	5.45%
80	24,000	\$1,740	\$1,852	6.47%
	40,000	\$2,599	\$2,748	5.75%
	56,000	\$3,458	\$3,644	5.39%
100	30,000	\$2,162	\$2,300	6.41%
	50,000	\$3,236	\$3,420	5.71%
	70,000	\$4,309	\$4,540	5.36%
200	60,000	\$4,239	\$4,493	6.00%
	100,000	\$6,387	\$6,733	5.43%
	140,000	\$8,534	\$8,973	5.14%

\* Net rate including Schedules 91, 290 and 297.

\*\* Includes the effects of the Transition Adjustment Mechanism for January 1, 2010.

**Pacific Power & Light Company**  
**Monthly Billing Comparison**  
**Delivery Service Schedule 30 + Cost-Based Supply Service**  
**Large General Service - Secondary Delivery Voltage**

kW Load Size	kWh	Monthly Billing*		Percent Difference
		Present Price**	GRC Proposed Price	
100	30,000	\$2,358	\$2,609	10.67%
	50,000	\$3,361	\$3,678	9.43%
	70,000	\$4,365	\$4,748	8.76%
200	60,000	\$4,262	\$4,678	9.75%
	100,000	\$6,269	\$6,816	8.72%
	140,000	\$8,277	\$8,955	8.19%
300	90,000	\$6,279	\$6,885	9.64%
	150,000	\$9,291	\$10,093	8.63%
	210,000	\$12,302	\$13,301	8.12%
400	120,000	\$8,234	\$9,028	9.64%
	200,000	\$12,249	\$13,305	8.62%
	280,000	\$16,264	\$17,582	8.10%
500	150,000	\$10,195	\$11,168	9.55%
	250,000	\$15,214	\$16,515	8.55%
	350,000	\$20,233	\$21,861	8.05%
600	180,000	\$12,156	\$13,309	9.48%
	300,000	\$18,179	\$19,725	8.50%
	420,000	\$24,202	\$26,140	8.01%
800	240,000	\$16,078	\$17,590	9.40%
	400,000	\$24,108	\$26,144	8.45%
	560,000	\$32,139	\$34,699	7.97%
1000	300,000	\$20,000	\$21,871	9.36%
	500,000	\$30,038	\$32,564	8.41%
	700,000	\$40,076	\$43,257	7.94%

\* Net rate including Schedules 91, 290 and 297.

\*\*Includes the effects of the Transition Adjustment Mechanism for January 1, 2010.

**Pacific Power & Light Company**  
**Monthly Billing Comparison**  
**Delivery Service Schedule 30 + Cost-Based Supply Service**  
**Large General Service - Primary Delivery Voltage**

kW Load Size	kWh	Monthly Billing*		Percent Difference
		Present Price**	GRC Proposed Price	
100	30,000	\$2,311	\$2,480	7.30%
	50,000	\$3,296	\$3,521	6.82%
	70,000	\$4,281	\$4,563	6.57%
200	60,000	\$4,178	\$4,466	6.89%
	100,000	\$6,149	\$6,549	6.51%
	140,000	\$8,119	\$8,632	6.32%
300	90,000	\$6,154	\$6,576	6.87%
	150,000	\$9,109	\$9,701	6.49%
	210,000	\$12,065	\$12,825	6.30%
400	120,000	\$8,088	\$8,650	6.96%
	200,000	\$12,029	\$12,816	6.55%
	280,000	\$15,970	\$16,982	6.34%
500	150,000	\$10,012	\$10,704	6.92%
	250,000	\$14,938	\$15,911	6.52%
	350,000	\$19,864	\$21,119	6.32%
600	180,000	\$11,935	\$12,758	6.89%
	300,000	\$17,847	\$19,006	6.50%
	420,000	\$23,758	\$25,255	6.30%
800	240,000	\$15,783	\$16,865	6.85%
	400,000	\$23,665	\$25,197	6.47%
	560,000	\$31,547	\$33,528	6.28%
1000	300,000	\$19,631	\$20,972	6.83%
	500,000	\$29,483	\$31,387	6.46%
	700,000	\$39,336	\$41,801	6.27%

\* Net rate including Schedules 91, 290 and 297.

\*\*Includes the effects of the Transition Adjustment Mechanism for January 1, 2010.

**Pacific Power & Light Company**  
**Billing Comparison**  
**Delivery Service Schedule 41 + Cost-Based Supply Service**  
**Agricultural Pumping - Secondary Delivery Voltage**

kW Load Size	kWh	Present Price*			GRC Proposed Price*			Percent Difference		
		April - November Monthly Bill**	December- March Monthly Bill**	Annual Load Size Charge	April - November Monthly Bill	December- March Monthly Bill	Annual Load Size Charge	April - November Monthly Bill	December- March Monthly Bill	Annual Load Size Charge
<u>Single Phase</u>										
10	3,000	\$201	\$221	\$185	\$230	\$253	\$206	14.01%	14.18%	11.11%
	5,000	\$336	\$355	\$185	\$383	\$406	\$206	14.01%	14.11%	11.11%
	7,000	\$470	\$490	\$185	\$536	\$559	\$206	14.01%	14.08%	11.11%
<u>Three Phase</u>										
20	6,000	\$403	\$442	\$371	\$459	\$505	\$412	14.01%	14.17%	11.11%
	10,000	\$671	\$711	\$371	\$765	\$811	\$412	14.01%	14.11%	11.11%
	14,000	\$940	\$979	\$371	\$1,072	\$1,117	\$412	14.01%	14.08%	11.11%
100	30,000	\$2,014	\$2,213	\$1,504	\$2,296	\$2,527	\$1,638	14.01%	14.17%	8.90%
	50,000	\$3,357	\$3,557	\$1,504	\$3,827	\$4,058	\$1,638	14.01%	14.10%	8.90%
	70,000	\$4,699	\$4,900	\$1,504	\$5,357	\$5,590	\$1,638	14.01%	14.07%	8.90%
300	90,000	\$6,042	\$6,640	\$3,770	\$6,888	\$7,580	\$4,110	14.01%	14.17%	9.02%
	150,000	\$10,070	\$10,670	\$3,770	\$11,480	\$12,175	\$4,110	14.01%	14.10%	9.02%
	210,000	\$14,098	\$14,701	\$3,770	\$16,072	\$16,770	\$4,110	14.01%	14.07%	9.02%

\* Net rate including Schedules 91, 98, 290 and 297.  
\*\*Includes the effects of the Transition Adjustment Mechanism for January 1, 2010.

**Pacific Power & Light Company**  
**Billing Comparison**  
**Delivery Service Schedule 41 + Cost-Based Supply Service**  
**Agricultural Pumping - Primary Delivery Voltage**

kW Load Size	kWh	Present Price*			GRC Proposed Price*			Percent Difference		
		April - November Monthly Bill**	December- March Monthly Bill**	Annual Load Size Charge	April - November Monthly Bill	December- March Monthly Bill	Annual Load Size Charge	April - November Monthly Bill	December- March Monthly Bill	Annual Load Size Charge
<u>Single Phase</u>										
10	3,000	\$194	\$214	\$185	\$220	\$243	\$196	13.41%	13.59%	5.56%
	5,000	\$324	\$343	\$185	\$367	\$389	\$196	13.41%	13.52%	5.56%
	7,000	\$453	\$473	\$185	\$514	\$536	\$196	13.41%	13.49%	5.56%
<u>Three Phase</u>										
20	6,000	\$389	\$427	\$371	\$441	\$485	\$391	13.41%	13.59%	5.56%
	10,000	\$648	\$686	\$371	\$734	\$779	\$391	13.41%	13.52%	5.56%
	14,000	\$907	\$945	\$371	\$1,028	\$1,073	\$391	13.41%	13.49%	5.56%
100	30,000	\$1,943	\$2,137	\$1,494	\$2,203	\$2,427	\$1,627	13.41%	13.58%	8.97%
	50,000	\$3,238	\$3,433	\$1,494	\$3,672	\$3,897	\$1,627	13.41%	13.51%	8.97%
	70,000	\$4,533	\$4,729	\$1,494	\$5,141	\$5,366	\$1,627	13.41%	13.48%	8.97%
300	90,000	\$5,829	\$6,410	\$3,760	\$6,610	\$7,281	\$4,099	13.41%	13.58%	9.04%
	150,000	\$9,714	\$10,298	\$3,760	\$11,017	\$11,690	\$4,099	13.41%	13.51%	9.04%
	210,000	\$13,600	\$14,187	\$3,760	\$15,424	\$16,099	\$4,099	13.41%	13.48%	9.04%

\* Net rate including Schedules 91, 98, 290 and 297.

\*\* Includes the effects of the Transition Adjustment Mechanism for January 1, 2010.



**Pacific Power & Light Company**  
**Monthly Billing Comparison**  
**Delivery Service Schedule 48 + Cost-Based Supply Service**  
**Large General Service - Secondary Delivery Voltage**  
**1,000 kW and Over**

kW Load Size	kWh	Monthly Billing		Percent Difference
		Present Price**	GRC Proposed Price	
1,000	300,000	\$18,959	\$21,127	11.44%
	500,000	\$28,247	\$31,538	11.65%
	700,000	\$37,536	\$41,949	11.76%
2,000	600,000	\$37,599	\$41,904	11.45%
	1,000,000	\$55,615	\$62,166	11.78%
	1,400,000	\$73,768	\$82,564	11.92%
4,000	1,200,000	\$74,106	\$82,686	11.58%
	2,000,000	\$110,411	\$123,482	11.84%
	2,800,000	\$146,717	\$164,279	11.97%
6,000	1,800,000	\$110,100	\$123,295	11.98%
	3,000,000	\$164,559	\$184,489	12.11%
	4,200,000	\$219,017	\$245,684	12.18%

Notes:  
On-Peak kWh 64.01%  
Off-Peak kWh 35.99%

\* Net rate including Schedules 91 and 290. Schedule 297 not included for kWh levels over 730,000.  
\*\* Includes the effects of the Transition Adjustment Mechanism for January 1, 2010.

**Pacific Power & Light Company**  
**Monthly Billing Comparison**  
**Delivery Service Schedule 48 + Cost-Based Supply Service**  
**Large General Service - Primary Delivery Voltage**  
**1,000 kW and Over**

kW Load Size	kWh	Monthly Billing		Percent Difference
		Present Price**	GRC Proposed Price	
1,000	300,000	\$17,633	\$20,127	14.14%
	500,000	\$26,545	\$30,083	13.33%
	700,000	\$35,458	\$40,040	12.92%
2,000	600,000	\$34,988	\$39,882	13.99%
	1,000,000	\$52,253	\$59,236	13.36%
	1,400,000	\$69,654	\$78,726	13.02%
4,000	1,200,000	\$68,925	\$78,622	14.07%
	2,000,000	\$103,727	\$117,601	13.38%
	2,800,000	\$138,529	\$156,581	13.03%
6,000	1,800,000	\$102,906	\$117,477	14.16%
	3,000,000	\$155,109	\$175,946	13.43%
	4,200,000	\$207,312	\$234,415	13.07%

Notes:

On-Peak kWh            60.53%  
Off-Peak kWh            39.47%

\* Net rate including Schedules 91 and 290. Schedule 297 not included for kWh levels over 730,000.

\*\* Includes the effects of the Transition Adjustment Mechanism for January 1, 2010.

**Pacific Power & Light Company**  
**Monthly Billing Comparison**  
**Delivery Service Schedule 48 + Cost-Based Supply Service**  
**Large General Service - Transmission Delivery Voltage**  
**1,000 kW and Over**

kW Load Size	kWh	Monthly Billing		Percent Difference
		Present Price**	GRC Proposed Price	
1,000	300,000	\$16,372	\$19,161	17.04%
	500,000	\$24,931	\$28,680	15.04%
	700,000	\$33,490	\$38,199	14.06%
2,000	600,000	\$32,476	\$37,827	16.48%
	1,000,000	\$49,034	\$56,306	14.83%
	1,400,000	\$65,728	\$74,920	13.98%
4,000	1,200,000	\$63,911	\$74,389	16.39%
	2,000,000	\$97,300	\$111,617	14.71%
	2,800,000	\$130,689	\$148,846	13.89%
6,000	1,800,000	\$95,710	\$111,508	16.51%
	3,000,000	\$145,793	\$167,351	14.79%
	4,200,000	\$195,876	\$223,194	13.95%

Notes:

On-Peak kWh	56.04%
Off-Peak kWh	43.96%

\* Net rate including Schedules 91 and 290. Schedule 297 not included for kWh levels over 730,000.

\*\*Includes the effects of the Transition Adjustment Mechanism for January 1, 2010.



Docket No. UE-210  
Exhibit PPL/1012  
Witness: William R. Griffith

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of William R. Griffith  
Billing Determinants**

**August 2009**

**PACIFIC POWER & LIGHT COMPANY**  
**State of Oregon**  
**Billing Determinants**  
**Actual 12 Months Ended June 30, 2008**  
**Forecast 12 Months Ended December 31, 2010**

Exhibit PPL/1012  
Griffith/1

Schedule (1)	Forecast	Present		Proposed		Cost of Service Based		
	1/10 - 12/10 Units (2)	Price (3)	Rates Effective 3/31/09 Dollars (4)	Price (5)	Dollars (6)	Unbundled Target Revenues (7) (8) (9)		
<b>Schedule No. 4</b>								
<b>Residential Service</b>								
<b>Transmission &amp; Ancillary Services Charge</b>						Proposed		
per kWh	5,435,845,633 kWh	0.394 ¢	\$21,417,232	0.386 ¢	\$20,982,364	Total	511,369,471	108.4%
<b>Distribution Charge</b>						T Rev	20,965,344	97.9%
Basic Charge, per month	5,741,820 bill	\$7.50	\$43,063,650	\$8.50	\$48,805,470	D Rev	226,976,602	107.3%
Three Phase Demand Charge, per kW demand	17,328 kW	\$2.20	\$38,122	\$2.20	\$38,122	E Rev	263,427,525	110.3%
Three Phase Minimum Demand Charge, per month	1,556 bill	\$3.80	\$5,913	\$3.80	\$5,913	NPC Rev	113,641,512	
Distribution Energy Charge, per kWh	5,435,845,633 kWh	3.115 ¢	\$169,326,591	3.277 ¢	\$178,132,661			
<b>Energy Charge</b>								
Schedule 200								
First Block kWh	2,374,190,522 kWh	3.521 ¢	\$83,595,248	2.327 ¢	\$55,247,413			
Second Block kWh	1,499,989,488 kWh	4.173 ¢	\$62,594,561	2.758 ¢	\$41,369,710			
Third Block kWh	1,561,665,624 kWh	5.149 ¢	\$80,410,163	3.403 ¢	\$53,143,481			
Schedule 201								
First Block kWh	2,374,190,522 kWh			1.766 ¢	\$41,928,205			
Second Block kWh	1,499,989,488 kWh			2.093 ¢	\$31,394,780			
Third Block kWh	1,561,665,624 kWh			2.583 ¢	\$40,337,823			
<b>Subtotal</b>			\$460,451,480		\$511,385,942			
Renewable Adjustment Clause, per kWh	5,435,845,633 kWh	0.223 ¢	\$12,121,936	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	5,435,845,633 kWh	(0.018) ¢	(\$978,452)	0.000 ¢	\$0			
<b>Total</b>	5,435,845,633 kWh		\$471,594,964		\$511,385,942			
				Change	\$39,790,978			
<b>Schedule No. 4 - Employee Discount</b>								
<b>Residential Service</b>								
<b>Transmission &amp; Ancillary Services Charge</b>								
per kWh	18,481,059 kWh	0.394 ¢	\$72,815	0.386 ¢	\$71,337			
<b>Distribution Charge</b>								
Basic Charge, per month	14,361 bill	\$7.50	\$107,708	\$8.50	\$122,069			
Three Phase Demand Charge, per kW demand	82 kW	\$2.20	\$180	\$2.20	\$180			
Three Phase Minimum Demand Charge, per month	12 bill	\$3.80	\$46	\$3.80	\$46			
Distribution Energy Charge, per kWh	18,481,059 kWh	3.115 ¢	\$575,685	3.277 ¢	\$605,624			
<b>Energy Charge</b>								
Schedule 200								
First Block kWh	6,715,105 kWh	3.521 ¢	\$236,439	2.327 ¢	\$156,260			
Second Block kWh	5,192,652 kWh	4.173 ¢	\$216,689	2.758 ¢	\$143,213			
Third Block kWh	6,573,302 kWh	5.149 ¢	\$338,459	3.403 ¢	\$223,689			
Schedule 201								
First Block kWh	6,715,105 kWh			1.766 ¢	\$118,589			
Second Block kWh	5,192,652 kWh			2.093 ¢	\$108,682			
Third Block kWh	6,573,302 kWh			2.583 ¢	\$169,788			
<b>Subtotal</b>			\$1,548,021		\$1,719,477			
Renewable Adjustment Clause, per kWh	18,481,059 kWh	0.223 ¢	\$41,213	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	18,481,059 kWh	(0.018) ¢	(\$3,327)	0.000 ¢	\$0			
<b>Total</b>	18,481,059 kWh		\$1,585,907		\$1,719,477			
<b>Total Employee Discount</b>			(\$396,477)		(\$429,869)			

**PACIFIC POWER & LIGHT COMPANY**  
**State of Oregon**  
**Billing Determinants**  
**Actual 12 Months Ended June 30, 2008**  
**Forecast 12 Months Ended December 31, 2010**

Exhibit PPL/1012  
Griffith/2

Schedule (1)	Forecast	Present		Proposed		Cost of Service Based		
	1/10 - 12/10 Units (2)	Price (3)	Rates Effective 3/31/09 Dollars (4)	Price (5)	Dollars (6)	Unbundled Target Revenues (7) (8) (9)		
<b>Schedule No. 23/723</b>								
<b>General Service (Secondary)</b>								
<b>Transmission &amp; Ancillary Services Charge</b>								
per kWh	1,012,788,782 kWh	0.455 ¢	\$4,608,189	0.374 ¢	\$3,787,830	Total	Proposed 99,191,050	% 109.3%
<b>Distribution Charge</b>								
Basic Charge								
Single Phase, per month	695,056 bill	\$16.15	\$11,225,154	\$18.55	\$12,893,289	T Rev	3,783,269	82.1%
Three Phase, per month	193,187 bill	\$24.10	\$4,655,807	\$27.70	\$5,351,280	D Rev	47,114,947	115.0%
Load Size Charge								
≤ 15 kW	kW	No Charge		No Charge		E Rev	48,292,834	106.8%
per kW for all kW in excess of 15 kW	767,514 kW	\$1.10	\$844,265	\$1.25	\$959,393	NPC Rev	20,833,323	
Demand Charge, the first 15 kW of demand	kW	No Charge		No Charge				
Demand Charge, per kW for all kW in excess of 15 kW	419,716 kW	\$3.77	\$1,582,329	\$4.33	\$1,817,370			
Reactive Power Charge, per kvar	54,155 kvar	65.00 ¢	\$35,201	65.00 ¢	\$35,201			
Distribution Energy Charge, per kWh	1,012,788,782 kWh	2.252 ¢	\$22,808,003	2.574 ¢	\$26,069,183			
<b>Energy Charge</b>								
Schedule 200								
1st 3,000 kWh, per kWh	778,802,018 kWh	4.502 ¢	\$35,061,667	2.883 ¢	\$22,452,862			
All additional kWh, per kWh	233,986,764 kWh	3.343 ¢	\$7,822,178	2.141 ¢	\$5,009,657			
Schedule 201								
1st 3,000 kWh, per kWh	778,802,018 kWh			2.187 ¢	\$17,032,400			
All additional kWh, per kWh	233,986,764 kWh			1.624 ¢	\$3,799,945			
<b>Subtotal</b>			\$88,642,793		\$99,208,410			
Renewable Adjustment Clause, per kWh	1,012,788,782 kWh	0.229 ¢	\$2,319,286	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	1,012,788,782 kWh	(0.017) ¢	(\$172,174)	0.000 ¢	\$0			
<b>Total</b>	1,012,788,782 kWh		\$90,789,905		\$99,208,410			
				Change	\$8,418,505			
<b>Schedule No. 23/723</b>								
<b>General Service (Primary)</b>								
<b>Transmission &amp; Ancillary Services Charge</b>								
per kWh	1,151,715 kWh	0.442 ¢	\$5,091	0.362 ¢	\$4,169	Total	Proposed 140,052	% 141.2%
<b>Distribution Charge</b>								
Basic Charge								
Single Phase, per month	228 bill	\$16.15	\$3,682	\$18.55	\$4,229	T Rev	4,445	87.3%
Three Phase, per month	190 bill	\$24.10	\$4,579	\$27.70	\$5,263	D Rev	81,581	170.5%
Load Size Charge								
≤ 15 kW	kW	No Charge		No Charge		E Rev	54,025	116.9%
per kW for all kW in excess of 15 kW	2,989 kW	\$1.10	\$3,288	\$1.25	\$3,736	NPC Rev	23,306	
Demand Charge, the first 15 kW of demand	kW	No Charge		No Charge				
Demand Charge, per kW for all kW in excess of 15 kW	2,440 kW	\$3.67	\$8,955	\$4.21	\$10,272			
Reactive Power Charge, per kvar	3,872 kvar	60.00 ¢	\$2,323	60.00 ¢	\$2,323			
Distribution Energy Charge, per kWh	1,151,715 kWh	2.190 ¢	\$25,223	2.494 ¢	\$28,724			
<b>Energy Charge</b>								
Schedule 200								
1st 3,000 kWh, per kWh	535,677 kWh	4.386 ¢	\$23,495	2.793 ¢	\$14,961			
All additional kWh, per kWh	616,038 kWh	3.259 ¢	\$20,077	2.074 ¢	\$12,777			
Schedule 201								
1st 3,000 kWh, per kWh	535,677 kWh			2.119 ¢	\$11,351			
All additional kWh, per kWh	616,038 kWh			1.573 ¢	\$9,690			
<b>Subtotal</b>			\$96,713		\$107,495			
Renewable Adjustment Clause, per kWh	1,151,715 kWh	0.229 ¢	\$2,637	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	1,151,715 kWh	(0.017) ¢	(\$196)	0.000 ¢	\$0			
<b>Total</b>	1,151,715 kWh		\$99,154		\$107,495			
				Change	\$8,341			

**PACIFIC POWER & LIGHT COMPANY**  
**State of Oregon**  
**Billing Determinants**  
**Actual 12 Months Ended June 30, 2008**  
**Forecast 12 Months Ended December 31, 2010**

Exhibit PPL/1012  
Griffith/3

Schedule (1)	Forecast	Present		Proposed		Cost of Service Based		
	1/10 - 12/10 Units (2)	Price (3)	Dollars (4)	Price (5)	Dollars (6)	Unbundled Target Revenues (7) (8) (9)		
<b>Schedule No. 28/728</b>								
<b>Large General Service - (Secondary)</b>								
<b>Transmission &amp; Ancillary Services Charge</b>						Proposed		
per kW	6,689,074 kW	\$1.25	\$8,361,343	\$1.23	\$8,227,561	Total	141,772,578	114.0%
<b>Distribution Charge</b>						T Rev	8,250,834	98.7%
Basic Charge						D Rev	35,186,616	128.5%
Load Size ≤ 50 kW, per month	55,594 bill	\$12.00	\$667,128	\$15.00	\$833,910	E Rev	98,335,128	110.9%
Load Size 51-100 kW, per month	41,613 bill	\$22.00	\$915,486	\$28.00	\$1,165,164	NPC Rev	42,421,355	
Load Size 101-300 kW, per month	22,978 bill	\$52.00	\$1,194,856	\$67.00	\$1,539,526			
Load Size > 300 kW, per month	422 bill	\$75.00	\$31,650	\$96.00	\$40,512			
Load Size Charge								
≤ 50 kW	2,060,865 kW	\$0.75	\$1,545,649	\$0.95	\$1,957,822			
51-100 kW, per kW	2,821,071 kW	\$0.60	\$1,692,643	\$0.75	\$2,115,803			
101-300 kW, per kW	3,340,661 kW	\$0.35	\$1,169,231	\$0.45	\$1,503,297			
>300 kW, per kW	183,259 kW	\$0.25	\$45,815	\$0.30	\$54,978			
Demand Charge, per kW	6,689,074 kW	\$2.21	\$14,782,854	\$2.84	\$18,996,970			
Reactive Power Charge, per kvar	562,858 kvar	65.00 ¢	\$365,858	65.00 ¢	\$365,858			
Distribution Energy Charge, per kWh	2,026,816,182 kWh	0.259 ¢	\$5,249,454	0.327 ¢	\$6,627,689			
<b>Energy Charge</b>								
Schedule 200								
1st 20,000 kWh, per kWh	1,433,359,115 kWh	4.182 ¢	\$59,943,078	2.781 ¢	\$39,861,717			
All additional kWh, per kWh	593,457,067 kWh	4.069 ¢	\$24,147,768	2.706 ¢	\$16,058,948			
Schedule 201								
1st 20,000 kWh, per kWh	1,433,359,115 kWh			2.110 ¢	\$30,243,877			
All additional kWh, per kWh	593,457,067 kWh			2.053 ¢	\$12,183,674			
<b>Subtotal</b>								
Renewable Adjustment Clause, per kWh	2,026,816,182 kWh	0.224 ¢	\$4,540,068	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	2,026,816,182 kWh	(0.014) ¢	(\$283,754)	0.000 ¢	\$0			
<b>Total</b>	2,026,816,182 kWh		\$124,369,127		\$141,777,306			
				Change	\$17,408,179			
<b>Schedule No. 28/728</b>								
<b>Large General Service - (Primary)</b>								
<b>Transmission &amp; Ancillary Services Charge</b>						Proposed		
per kW	60,958 kW	\$1.23	\$74,978	\$1.18	\$71,930	Total	1,241,970	110.6%
<b>Distribution Charge</b>						T Rev	71,809	95.8%
Basic Charge						D Rev	313,905	117.0%
Load Size ≤ 50 kW, per month	59 bill	\$16.00	\$944	\$19.00	\$1,121	E Rev	856,256	109.8%
Load Size 51-100 kW, per month	174 bill	\$28.00	\$4,872	\$33.00	\$5,742	NPC Rev	369,385	
Load Size 101-300 kW, per month	356 bill	\$66.00	\$23,496	\$77.00	\$27,412			
Load Size > 300 kW, per month	14 bill	\$94.00	\$1,316	\$110.00	\$1,540			
Load Size Charge								
≤ 50 kW	2,153 kW	\$0.90	\$1,938	\$1.05	\$2,261			
51-100 kW, per kW	12,408 kW	\$0.75	\$9,306	\$0.90	\$11,167			
101-300 kW, per kW	58,741 kW	\$0.40	\$23,496	\$0.45	\$26,433			
>300 kW, per kW	6,724 kW	\$0.25	\$1,681	\$0.30	\$2,017			
Demand Charge, per kW	60,958 kW	\$2.87	\$174,949	\$3.36	\$204,819			
Reactive Power Charge, per kvar	34,625 kvar	60.00 ¢	\$20,775	60.00 ¢	\$20,775			
Distribution Energy Charge, per kWh	18,249,203 kWh	0.044 ¢	\$8,030	0.057 ¢	\$10,402			
<b>Energy Charge</b>								
Schedule 200								
1st 20,000 kWh, per kWh	9,486,985 kWh	4.104 ¢	\$389,346	2.703 ¢	\$256,433			
All additional kWh, per kWh	8,762,218 kWh	3.994 ¢	\$349,963	2.631 ¢	\$230,534			
Schedule 201								
1st 20,000 kWh, per kWh	9,486,985 kWh			2.051 ¢	\$194,578			
All additional kWh, per kWh	8,762,218 kWh			1.996 ¢	\$174,894			
<b>Subtotal</b>								
Renewable Adjustment Clause, per kWh	18,249,203 kWh	0.224 ¢	\$40,878	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	18,249,203 kWh	(0.014) ¢	(\$2,555)	0.000 ¢	\$0			
<b>Total</b>	18,249,203 kWh		\$1,123,413		\$1,242,058			
				Change	\$118,645			



**PACIFIC POWER & LIGHT COMPANY**  
**State of Oregon**  
**Billing Determinants**  
**Actual 12 Months Ended June 30, 2008**  
**Forecast 12 Months Ended December 31, 2010**

Exhibit PPL/1012  
Griffith/4

Schedule (1)	Forecast	Present		Proposed		Cost of Service Based		
	1/10 - 12/10 Units (2)	Price (3)	Rates Effective 3/31/09 Dollars (4)	Price (5)	Dollars (6)	Unbundled Target Revenues (7) (8) (9)		
<b>Schedule No. 30/730</b>								
<b>Large General Service - (Secondary)</b>								
<b>Transmission &amp; Ancillary Services Charge</b>						<b>Proposed</b>		
per kW	3,534,295 kW	\$1.38	\$4,877,327	\$1.42	\$5,018,699	Total	83,654,318	114.0%
<b>Distribution Charge</b>						T Rev	5,030,259	103.1%
Basic Charge						D Rev	17,170,097	124.2%
Load Size ≤ 200 kW, per month	155 bill	\$319.00	\$49,342	\$393.00	\$60,788	E Rev	61,453,962	112.4%
Load Size 201-300 kW, per month	2,716 bill	\$99.00	\$268,849	\$123.00	\$334,024	NPC Rev	26,510,977	
Load Size > 300 kW, per month	6,740 bill	\$258.00	\$1,738,822	\$320.00	\$2,156,679			
Load Size Charge								
≤ 200 kW	14,627 kW	No Charge		No Charge				
201-300 kW, per kW	714,392 kW	\$1.10	\$785,831	\$1.35	\$964,429			
>300 kW, per kW	3,411,992 kW	\$0.55	\$1,876,596	\$0.70	\$2,388,394			
Demand Charge, per kW	3,534,295 kW	\$2.49	\$8,800,395	\$3.09	\$10,920,972			
Reactive Power Charge, per kvar	713,631 kvar	65.00 ¢	\$463,860	65.00 ¢	\$463,860			
<b>Energy Charge</b>								
Schedule 200								
1st 20,000 kWh, per kWh	190,869,386 kWh	4.552 ¢	\$8,688,374	3.009 ¢	\$5,743,260			
All additional kWh, per kWh	1,093,845,348 kWh	3.947 ¢	\$43,174,076	2.659 ¢	\$29,085,348			
Schedule 201								
1st 20,000 kWh, per kWh	190,869,386 kWh			2.327 ¢	\$4,441,531			
All additional kWh, per kWh	1,093,845,348 kWh			2.018 ¢	\$22,073,799			
<b>Subtotal</b>								
Renewable Adjustment Clause, per kWh	1,284,714,734 kWh	0.218 ¢	\$2,800,678	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	1,284,714,734 kWh	(0.012) ¢	(\$154,166)	0.000 ¢	\$0			
<b>Total</b>	1,284,714,734 kWh		\$73,369,984		\$83,651,783			
				Change	\$10,281,799			
<b>Schedule No. 30/730</b>								
<b>Large General Service - (Primary)</b>								
<b>Transmission &amp; Ancillary Services Charge</b>						<b>Proposed</b>		
per kW	279,833 kW	\$1.32	\$369,380	\$1.27	\$355,388	Total	5,923,010	111.4%
<b>Distribution Charge</b>						T Rev	356,039	96.4%
Basic Charge						D Rev	1,211,862	115.9%
Load Size ≤ 200 kW, per month	0 bill	\$310.00	\$0	\$356.00	\$0.00	E Rev	4,355,109	111.6%
Load Size 201-300 kW, per month	106 bill	\$100.00	\$10,597	\$116.00	\$12,293.00	NPC Rev	1,878,776	
Load Size > 300 kW, per month	520 bill	\$260.00	\$135,223	\$301.00	\$156,546.00			
Load Size Charge								
≤ 200 kW	0 kW	No Charge		No Charge				
201-300 kW, per kW	27,640 kW	\$1.05	\$29,022	\$1.20	\$33,168			
>300 kW, per kW	314,299 kW	\$0.55	\$172,864	\$0.65	\$204,294			
Demand Charge, per kW	279,833 kW	\$2.46	\$688,389	\$2.85	\$797,524			
Reactive Power Charge, per kvar	35,084 kvar	60.00 ¢	\$21,050	60.00 ¢	\$21,050			
<b>Energy Charge</b>								
Schedule 200								
1st 20,000 kWh, per kWh	12,465,248 kWh	4.461 ¢	\$556,075	2.889 ¢	\$360,121			
All additional kWh, per kWh	81,466,178 kWh	3.857 ¢	\$3,142,150	2.583 ¢	\$2,104,271			
Schedule 201								
1st 20,000 kWh, per kWh	12,465,248 kWh			2.266 ¢	\$282,463			
All additional kWh, per kWh	81,466,178 kWh			1.959 ¢	\$1,595,922			
<b>Subtotal</b>								
Renewable Adjustment Clause, per kWh	93,931,426 kWh	0.218 ¢	\$204,771	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	93,931,426 kWh	(0.012) ¢	(\$11,272)	0.000 ¢	\$0			
<b>Total</b>	93,931,426 kWh		\$5,318,249		\$5,923,040			
				Change	\$604,791			

**PACIFIC POWER & LIGHT COMPANY**  
**State of Oregon**  
**Billing Determinants**  
**Actual 12 Months Ended June 30, 2008**  
**Forecast 12 Months Ended December 31, 2010**

Exhibit PPL/1012  
Griffith/5

Schedule	Forecast	Present		Proposed		Cost of Service Based		
	1/10 - 12/10	Rates Effective 3/31/09		Price	Dollars	Price	Dollars	Unbundled Target Revenues
(1)	Units	Price	Dollars	(5)	(6)	(7)	(8)	(9)
<b>Schedule No. 33</b>								
<b>Klamath Irrigation and Drainage Pumping</b>								
<b>Total Customers</b>	2,062							
<b>Charges</b>								
Off-Project (Rate Code 35)	52,080,607 kWh	3.016 ¢	\$1,570,751	3.097 ¢	\$1,612,936			
On-Project (Rate Code 40)	62,373,687 kWh	2.757 ¢	\$1,719,643	2.832 ¢	\$1,766,423			
U.S. Government (Rate Code 33TX)	3,592,093 kWh							
U.S. Gov - On Peak	1,437,815 kWh	2.560 ¢	\$36,808	2.630 ¢	\$37,815			
U.S. Gov - Off Peak	2,154,278 kWh	2.037 ¢	\$43,883	2.037 ¢	\$43,883			
Minimum Charges Off-Project			\$6,529		\$6,529			
Minimum Charges On-Project			\$197,821		\$197,821			
<b>Subtotal</b>	118,046,387 kWh		\$3,575,435		\$3,665,407			
<b>Renewable Adjustment Clause, per kWh</b>	118,046,387 kWh	0.223 ¢	\$263,243	0.000 ¢	\$0			
<b>Total</b>	118,046,387 kWh		\$3,838,678		\$3,665,407			
				Change	(\$173,271)			

Note: Rates reflect estimated rate changes through 2010.

**PACIFIC POWER & LIGHT COMPANY**  
**State of Oregon**  
**Billing Determinants**  
**Actual 12 Months Ended June 30, 2008**  
**Forecast 12 Months Ended December 31, 2010**

Exhibit PPL/1012  
Griffith/6

Schedule (1)	Forecast	Present		Proposed		Cost of Service Based		
	1/10 - 12/10 Units (2)	Price (3)	Rates Effective 3/31/09 Dollars (4)	Price (5)	Dollars (6)	Unbundled Target Revenues (7) (8) (9)		
<b>Schedule No. 41/741</b>								
<b>Agricultural Pumping Service (Secondary)</b>								
<b>Transmission &amp; Ancillary Services Charge</b>								
per kWh	134,221,373 kWh	0.427 ¢	\$573,125	0.437 ¢	\$586,547		Proposed	%
<b>Distribution Charge</b>								
Basic Charge								
Load Size ≤ 50 kW, or Single Phase Any Size	5,637 bill	No Charge		No Charge		Total	15,580,004	108.8%
Three Phase Load Size 51 - 300 kW, per month	453 bill	\$360.00	\$163,080	\$390.00	\$176,670	T Rev	596,811	102.2%
Three Phase Load Size > 300 kW, per month	13 bill	\$1,420.00	\$18,460	\$1,540.00	\$20,020	D Rev	8,439,193	108.4%
Total Customers	6,103 bill					E Rev	6,544,000	109.9%
Load Size Charge								
Single Phase Any Size, Three Phase ≤ 50 kW	74,733 kW	\$18.00	\$1,345,194	\$20.00	\$1,494,660	NPC Rev	2,823,054	
Three Phase 51-300 kW, per kW	39,848 kW	\$11.00	\$438,328	\$12.00	\$478,176			
Three Phase > 300 kW, kW	6,641 kW	\$7.00	\$46,487	\$8.00	\$53,128			
Single Phase, Minimum Charge	838 bill	\$60.00	\$50,280	\$65.00	\$54,470			
Three Phase, Minimum Charge	1,139 bill	\$105.00	\$119,595	\$115.00	\$130,985			
Distribution Energy Charge, per kWh	134,221,373 kWh	4.088 ¢	\$5,486,970	4.381 ¢	\$5,880,238			
Reactive Power Charge, per kvar	27,433 kvar	65.00 ¢	\$17,831	65.00 ¢	\$17,831			
<b>Energy Charge</b>								
Schedule 200								
Winter, 1st 100 kWh/kW, per kWh	1,363,670 kWh	6.035 ¢	\$82,297	3.976 ¢	\$54,220			
Winter, All additional kWh, per kWh	1,466,167 kWh	4.112 ¢	\$60,289	2.709 ¢	\$39,718			
Summer, All kWh, per kWh	131,391,536 kWh	4.112 ¢	\$5,402,820	2.709 ¢	\$3,559,397			
Schedule 201								
Winter, 1st 100 kWh/kW, per kWh	1,363,670 kWh			3.016 ¢	\$41,128			
Winter, All additional kWh, per kWh	1,466,167 kWh			2.055 ¢	\$30,130			
Summer, All kWh, per kWh	131,391,536 kWh			2.055 ¢	\$2,700,096			
<b>Subtotal</b>			\$13,804,756		\$15,317,414			
Renewable Adjustment Clause, per kWh	134,221,373 kWh	0.223 ¢	\$299,314	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	134,221,373 kWh	(0.017) ¢	(\$22,818)	0.000 ¢	\$0			
<b>Total</b>	134,221,373 kWh		\$14,081,252		\$15,317,414			
				Change	\$1,236,162			
<b>Schedule No. 41/741</b>								
<b>Agricultural Pumping Service (Primary)</b>								
<b>Transmission &amp; Ancillary Services Charge</b>								
per kWh	2,570,507 kWh	0.415 ¢	\$10,668	0.423 ¢	\$10,873			
<b>Distribution Charge</b>								
Basic Charge								
Load Size ≤ 50 kW, or Single Phase Any Size	3 bill	No Charge		No Charge				
Three Phase Load Size 51 - 300 kW, per month	0 bill	\$350.00	\$0	\$380.00	\$0			
Three Phase Load Size > 300 kW, per month	2 bill	\$1,380.00	\$2,760	\$1,500.00	\$3,000			
Total Customers	5 bill							
Load Size Charge								
Single Phase Any Size, Three Phase ≤ 50 kW	46 kW	\$18.00	\$828	\$19.00	\$874			
Three Phase 51-300 kW, per kW	0 kW	\$11.00	\$0	\$12.00	\$0			
Three Phase > 300 kW, kW	2,169 kW	\$7.00	\$15,183	\$8.00	\$17,352			
Single Phase, Minimum Charge	0 bill	\$60.00	\$0	\$65.00	\$0			
Three Phase, Minimum Charge	1 bill	\$100.00	\$100	\$110.00	\$110			
Distribution Energy Charge, per kWh	2,570,507 kWh	3.975 ¢	\$102,178	4.244 ¢	\$109,092			
Reactive Power Charge, per kvar	3,066 kvar	60.00 ¢	\$1,840	60.00 ¢	\$1,840			
<b>Energy Charge</b>								
Schedule 200								
Winter, 1st 100 kWh/kW, per kWh	10,613 kWh	5.877 ¢	\$624	3.852 ¢	\$409			
Winter, All additional kWh, per kWh	61,869 kWh	4.007 ¢	\$2,479	2.624 ¢	\$1,623			
Summer, All kWh, per kWh	2,498,025 kWh	4.007 ¢	\$100,096	2.624 ¢	\$65,548			
Schedule 201								
Winter, 1st 100 kWh/kW, per kWh	10,613 kWh			2.922 ¢	\$310			
Winter, All additional kWh, per kWh	61,869 kWh			1.991 ¢	\$1,232			
Summer, All kWh, per kWh	2,498,025 kWh			1.991 ¢	\$49,736			
<b>Subtotal</b>			\$236,756		\$261,999			
Renewable Adjustment Clause, per kWh	2,570,507 kWh	0.223 ¢	\$5,732	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	2,570,507 kWh	(0.017) ¢	(\$437)	0.000 ¢	\$0			
<b>Total</b>	2,570,507 kWh		\$242,051		\$261,999			
				Change	\$19,948			

**PACIFIC POWER & LIGHT COMPANY**  
**State of Oregon**  
**Billing Determinants**  
**Actual 12 Months Ended June 30, 2008**  
**Forecast 12 Months Ended December 31, 2010**

Exhibit PPL/1012  
Griffith/7

Schedule (1)	Forecast	Present		Proposed		Cost of Service Based		
	1/10 - 12/10 Units (2)	Price (3)	Rates Effective 3/31/09 Dollars (4)	Price (5)	Dollars (6)	Unbundled Target Revenues (7) (8) (9)		
<b>Schedule No. 47/747</b>								
<b>Large General Service - Partial Requirement (Primary)</b>								
<b>Transmission &amp; Ancillary Services Charge</b>								
per kW of on-peak demand	629,550 kW	\$1.05	\$661,028	\$1.06	\$667,323			
credit per kW of on-peak demand	0 kW	(\$1.05)	\$0	(\$1.06)	\$0			
<b>Distribution Charge</b>								
Basic Charge								
Load Size ≤ 4,000 kW, per month	0 bill	\$270.00	\$0	\$360.00	\$0			
Load Size > 4,000 kW, per month	36 bill	\$480.00	\$17,280	\$640.00	\$23,040			
Load Size/Facility Charge								
Load Size ≤ 4,000 kW, per kW	0 kW	\$0.85	\$0	\$0.75	\$0			
Load Size > 4,000 kW, per kW	655,984 kW	\$0.80	\$524,787	\$0.70	\$459,189			
Demand Charge, per kW of on-peak demand	629,550 kW	\$1.43	\$900,257	\$2.33	\$1,466,852			
Reactive Power Charge, per kvar	22,941 kvar	60.00 ¢	\$13,765	60.00 ¢	\$13,765			
Reactive Hours, per kvarh	4,083,071 kvarh	0.080 ¢	\$3,266	0.080 ¢	\$3,266			
Reserves Charges								
Spinning Reserves, per kW of Facility	655,984 kW	\$0.27	\$177,116	\$0.27	\$177,116			
Supplemental Reserves, per kW of Facility	655,984 kW	\$0.27	\$177,116	\$0.27	\$177,116			
Spinning Reserves Credit, per kW of Facility	520,704 kW	(\$0.27)	(\$140,590)	(\$0.27)	(\$140,590)			
Supplemental Reserves Credit, per kW of Facility	520,704 kW	(\$0.27)	(\$140,590)	(\$0.27)	(\$140,590)			
<b>Energy Charge</b>								
Schedule 200								
On-Peak, per on-peak kWh	232,517,250 kWh	3.797 ¢	\$8,828,680	2.610 ¢	\$6,068,700			
Off-Peak, per off-peak kWh	179,422,218 kWh	3.697 ¢	\$6,633,239	2.560 ¢	\$4,593,209			
Schedule 201								
On-Peak, per on-peak kWh	232,517,250 kWh			1.986 ¢	\$4,617,793			
Off-Peak, per off-peak kWh	179,422,218 kWh			1.936 ¢	\$3,473,614			
Unscheduled Energy, per kWh	832,620 kWh	5.970 ¢	\$49,709	5.970 ¢	\$49,709			
<b>Subtotal</b>			\$17,705,063		\$21,509,512			
Renewable Adjustment Clause, per kWh	412,772,088 kWh	0.203 ¢	\$837,927	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	412,772,088 kWh	(0.011) ¢	(\$45,405)	0.000 ¢	\$0			
<b>Total</b>	412,772,088 kWh		\$18,497,585		\$21,509,512			
				Change	\$3,011,927			
<b>Schedule No. 47/747</b>								
<b>Large General Service - Partial Requirement (Transmission)</b>								
<b>Transmission &amp; Ancillary Services Charge</b>								
per kW of on-peak demand	291,068 kW	\$1.40	\$407,495	\$1.43	\$416,227			
credit per kW of on-peak demand	0 kW	(\$1.40)	\$0	(\$1.43)	\$0			
<b>Distribution Charge</b>								
Basic Charge								
Load Size ≤ 4,000 kW, per month	24 bill	\$260.00	\$6,240	\$480.00	\$11,520			
Load Size > 4,000 kW, per month	24 bill	\$480.00	\$11,520	\$890.00	\$21,360			
Load Size/Facility Charge								
Load Size ≤ 4,000 kW, per kW	35,910 kW	\$0.45	\$16,160	\$0.65	\$23,342			
Load Size > 4,000 kW, per kW	330,471 kW	\$0.45	\$148,712	\$0.65	\$214,806			
Demand Charge, per kW of on-peak demand	291,068 kW	\$0.78	\$227,033	\$1.64	\$477,352			
Reactive Power Charge, per kvar	43,402 kvar	55.00 ¢	\$23,871	55.00 ¢	\$23,871			
Reactive Hours, per kvarh	977,033 kvarh	0.08 ¢	\$782	0.08 ¢	\$782			
Reserves Charges								
Spinning Reserves, per kW of Facility	366,381 kW	\$0.27	\$98,923	\$0.27	\$98,923			
Supplemental Reserves, per kW of Facility	366,381 kW	\$0.27	\$98,923	\$0.27	\$98,923			
Spinning Reserves Credit, per kW of Facility	0 kW	(\$0.27)	\$0	(\$0.27)	\$0			
Supplemental Reserves Credit, per kW of Facility	0 kW	(\$0.27)	\$0	(\$0.27)	\$0			
<b>Energy Charge</b>								
Schedule 200								
On-Peak, per on-peak kWh	88,587,292 kWh	3.630 ¢	\$3,215,719	2.492 ¢	\$2,207,595			
Off-Peak, per off-peak kWh	64,575,860 kWh	3.530 ¢	\$2,279,528	2.442 ¢	\$1,576,943			
Schedule 201								
On-Peak, per on-peak kWh	88,587,292 kWh			1.896 ¢	\$1,679,615			
Off-Peak, per off-peak kWh	64,575,860 kWh			1.846 ¢	\$1,192,070			
Unscheduled Energy, per kWh	6,030,044 kWh	6.347 ¢	\$382,701	6.347 ¢	\$382,701			
<b>Subtotal</b>			\$6,917,607		\$8,426,030			
Renewable Adjustment Clause, per kWh	159,193,196 kWh	0.203 ¢	\$323,162	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	159,193,196 kWh	(0.011) ¢	(\$17,511)	0.000 ¢	\$0			
<b>Total</b>	159,193,196 kWh		\$7,223,258		\$8,426,030			
				Change	\$1,202,772			

**PACIFIC POWER & LIGHT COMPANY**  
**State of Oregon**  
**Billing Determinants**  
**Actual 12 Months Ended June 30, 2008**  
**Forecast 12 Months Ended December 31, 2010**

Exhibit PPL/1012  
Griffith/8

Schedule	Forecast 1/10 - 12/10 Units	Present Rates Effective 3/31/09		Proposed		Cost of Service Based Unbundled Target Revenues		
		Price	Dollars	Price	Dollars	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	(6)			
<b>Schedule No. 76R/776R</b>								
<b>Large General Service/Partial Requirements Service - Economic Replacement Power Rider</b>								
Transmission & Ancillary Services Charge, per kW of Daily ERP On-Peak Demand								
Secondary	0 kW	\$0.038	\$0	\$0.038	\$0			
Primary	0 kW	\$0.041	\$0	\$0.041	\$0			
Transmission	0 kW	\$0.055	\$0	\$0.056	\$0			
Daily ERP Demand Charge, per kW of Daily ERP On-Peak Demand								
Secondary	0 kW	\$0.051	\$0	\$0.084	\$0			
Primary	0 kW	\$0.056	\$0	\$0.091	\$0			
Transmission	0 kW	\$0.030	\$0	\$0.064	\$0			
<b>Schedule No. 48/748</b>								
<b>Large General Service (Secondary)</b>								
<b>Transmission &amp; Ancillary Services Charge</b>								
per kW of on-peak demand	1,680,446 kW	\$1.51	\$2,537,473	\$1.51	\$2,537,473		Proposed	%
						Total Rev	40,759,959	113.5%
<b>Distribution Charge</b>						T Rev	2,533,707	99.9%
Basic Charge						D Rev	7,224,741	111.2%
Load Size ≤ 4,000 kW, per month	1,466 bill	\$310.00	\$454,460	\$340.00	\$498,440	E Rev	31,001,511	115.3%
Load Size > 4,000 kW, per month	12 bill	\$580.00	\$6,960	\$640.00	\$7,680	NPC Rev	13,373,920	
Load Size/Facility Charge								
Load Size ≤ 4,000 kW, per kW	1,931,585 kW	\$1.75	\$3,380,274	\$1.35	\$2,607,640			
Load Size > 4,000 kW, per kW	130,868 kW	\$1.60	\$209,389	\$1.25	\$163,585			
Demand Charge, per kW of on-peak demand	1,680,446 kW	\$1.31	\$2,201,384	\$2.15	\$3,612,959			
Reactive Power Charge, per kvar	486,931 kvar	65.00 ¢	\$316,505	65.00 ¢	\$316,505			
<b>Energy Charge</b>								
Schedule 200								
On-Peak, per on-peak kWh	415,357,613 kWh	3.976 ¢	\$16,514,619	2.735 ¢	\$11,360,031			
Off-Peak, per off-peak kWh	233,733,537 kWh	3.876 ¢	\$9,059,512	2.685 ¢	\$6,275,745			
Schedule 201								
On-Peak, per on-peak kWh	415,357,613 kWh			2.078 ¢	\$8,631,131			
Off-Peak, per off-peak kWh	233,733,537 kWh			2.028 ¢	\$4,740,116			
<b>Subtotal</b>							\$40,751,305	
Renewable Adjustment Clause, per kWh	649,091,150 kWh	0.203 ¢	\$1,317,655	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	649,091,150 kWh	-0.011 ¢	(\$71,400)	0.000 ¢	\$0			
<b>Total</b>	649,091,150 kWh		\$35,926,831		\$40,751,305			
						Change	\$4,824,474	
<b>Schedule No. 48/748</b>								
<b>Large General Service (Primary)</b>								
<b>Transmission &amp; Ancillary Services Charge</b>								
per kW of on-peak demand	3,454,326 kW	\$1.59	\$5,492,378	\$1.60	\$5,526,922		Proposed	%
						Total Rev	89,885,740	116.2%
<b>Distribution Charge</b>						T Rev	5,519,735	100.5%
Basic Charge						D Rev	11,913,009	133.6%
Load Size ≤ 4,000 kW, per month	673 bill	\$270.00	\$181,710	\$360.00	\$242,280	E Rev	72,452,996	115.1%
Load Size > 4,000 kW, per month	400 bill	\$480.00	\$192,000	\$640.00	\$256,000	NPC Rev	31,255,914	
Load Size/Facility Charge								
Load Size ≤ 4,000 kW, per kW	1,185,743 kW	\$0.85	\$1,007,882	\$0.75	\$889,307			
Load Size > 4,000 kW, per kW	2,859,392 kW	\$0.80	\$2,287,514	\$0.70	\$2,001,574			
Demand Charge, per kW of on-peak demand	3,454,326 kW	\$1.43	\$4,939,686	\$2.33	\$8,048,580			
Reactive Power Charge, per kvar	800,170 kvar	60.00 ¢	\$480,102	60.00 ¢	\$480,102			
<b>Energy Charge</b>								
Schedule 200								
On-Peak, per on-peak kWh	962,377,337 kWh	3.797 ¢	\$36,541,467	2.610 ¢	\$25,118,048			
Off-Peak, per off-peak kWh	627,543,923 kWh	3.697 ¢	\$23,200,299	2.560 ¢	\$16,065,124			
Schedule 201								
On-Peak, per on-peak kWh	962,377,337 kWh			1.986 ¢	\$19,112,814			
Off-Peak, per off-peak kWh	627,543,923 kWh			1.936 ¢	\$12,149,250			
<b>Subtotal</b>							\$89,890,001	
Renewable Adjustment Clause, per kWh	1,589,921,260 kWh	0.203 ¢	\$3,227,540	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	1,589,921,260 kWh	-0.011 ¢	(\$174,891)	0.000 ¢	\$0			
<b>Total</b>	1,589,921,260 kWh		\$77,375,687		\$89,890,001			
						Change	\$12,514,314	

**PACIFIC POWER & LIGHT COMPANY**  
**State of Oregon**  
**Billing Determinants**  
**Actual 12 Months Ended June 30, 2008**  
**Forecast 12 Months Ended December 31, 2010**

Exhibit PPL/1012  
Griffith/9

Schedule (1)	Forecast	Present		Proposed		Cost of Service Based		
	1/10 - 12/10 Units (2)	Price (3)	Dollars (4)	Price (5)	Dollars (6)	Unbundled Target Revenues (7) (8) (9)		
<b>Schedule No. 48/748</b>								
<b>Large General Service (Transmission)</b>								
<b>Transmission &amp; Ancillary Services Charge</b>								
per kW of on-peak demand	619,494 kW	\$1.94	\$1,201,818	\$1.97	\$1,220,403		Proposed	
<b>Distribution Charge</b>								
Basic Charge						Total Rev	20,404,496	117.3%
Load Size ≤ 4,000 kW, per month	0 bill	\$260.00	\$0	\$480.00	\$0	T Rev	1,223,310	101.8%
Load Size > 4,000 kW, per month	23 bill	\$480.00	\$11,040	\$890.00	\$20,470	D Rev	1,588,061	185.0%
Load Size/Facility Charge						E Rev	17,593,125	114.7%
Load Size ≤ 4,000 kW, per kW	0 kW	\$0.45	\$0	\$0.65	\$0	NPC Rev	7,589,599	
Load Size > 4,000 kW, per kW	753,152 kW	\$0.45	\$338,918	\$0.65	\$489,549			
Demand Charge, per kW of on-peak demand	619,494 kW	\$0.78	\$483,205	\$1.64	\$1,015,970			
Reactive Power Charge, per kvar	127,183 kvar	55.00 ¢	\$69,951	55.00 ¢	\$69,951			
<b>Energy Charge</b>								
Schedule 200								
On-Peak, per on-peak kWh	226,903,748 kWh	3.630 ¢	\$8,236,606	2.492 ¢	\$5,654,441			
Off-Peak, per off-peak kWh	177,985,113 kWh	3.530 ¢	\$6,282,874	2.442 ¢	\$4,346,396			
Schedule 201								
On-Peak, per on-peak kWh	226,903,748 kWh			1.896 ¢	\$4,302,095			
Off-Peak, per off-peak kWh	177,985,113 kWh			1.846 ¢	\$3,285,605			
<b>Subtotal</b>			\$16,624,412		\$20,404,880			
Renewable Adjustment Clause, per kWh	404,888,861 kWh	0.203 ¢	\$821,924	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	404,888,861 kWh	-0.011 ¢	(\$44,538)	0.000 ¢	\$0			
<b>Total</b>	404,888,861 kWh		\$17,401,798		\$20,404,880			
				Change	\$3,003,082			
<b>Schedule No. 15</b>								
<b>Outdoor Area Lighting Service</b>								
No. of Customers	7,404							
<b>Transmission &amp; Ancillary Services Charge</b>								
per kWh	10,467,219 kWh	0.015 ¢	\$1,570	0.017 ¢	\$1,779			
<b>Distribution Charge</b>								
Distribution Charge, per kWh	10,467,219 kWh	10.129 ¢	\$1,062,234	11.345 ¢	\$1,187,484	Total Rev	1,453,676	10.8%
<b>Energy Charge</b>								
Sch 200, per kWh	10,467,219 kWh	2.276 ¢	\$238,234	1.375 ¢	\$143,924	Change	141,694	10.8%
Sch 201 TAM, per kWh	10,467,219 kWh			1.147 ¢	\$120,059	Energy Rev	278,229	
<b>Subtotal</b>			\$1,302,038		\$1,453,247	NPC Rev	120,027	
Renewable Adjustment Clause, per kWh	10,467,219 kWh	0.123 ¢	\$12,875	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	10,467,219 kWh	-0.028 ¢	(\$2,931)	0.000 ¢	\$0			
<b>Total</b>	10,467,219 kWh		\$1,311,982		\$1,453,247			
				Change	\$141,265			
<b>Schedule No. 50</b>								
<b>Mercury Vapor Street Lighting Service</b>								
No. of Customers	287							
<b>Transmission &amp; Ancillary Services Charge</b>								
per kWh	10,738,031 kWh	0.013 ¢	\$1,396	0.014 ¢	\$1,503			
<b>Distribution Charge</b>								
Distribution Charge, per kWh	10,738,031 kWh	8.919 ¢	\$957,702	10.443 ¢	\$1,022,512	Total Rev	1,253,363	
<b>Energy Charge</b>								
Sch 200, per kWh	10,738,031 kWh	1.893 ¢	\$203,271	1.215 ¢	\$130,467	Change	82,726	7.1%
Sch 201 TAM, per kWh	10,738,031 kWh			0.921 ¢	\$98,897	Energy Rev	229,363	
<b>Subtotal</b>			\$1,162,369		\$1,253,380	NPC Rev	98,946	
Renewable Adjustment Clause, per kWh	10,738,031 kWh	0.102 ¢	\$10,953	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	10,738,031 kWh	-0.025 ¢	(\$2,685)	0.000 ¢	\$0			
<b>Total</b>	10,738,031 kWh		\$1,170,637		\$1,253,380			
				Change	\$82,743			

**PACIFIC POWER & LIGHT COMPANY**  
**State of Oregon**  
**Billing Determinants**  
**Actual 12 Months Ended June 30, 2008**  
**Forecast 12 Months Ended December 31, 2010**

Exhibit PPL/1012  
Griffith/10

Schedule (1)	Forecast	Present		Proposed		Cost of Service Based		
	1/10 - 12/10 Units (2)	Price (3)	Rates Effective 3/31/09 Dollars (4)	Price (5)	Dollars (6)	Unbundled Target Revenues (7) (8) (9)		
<b>Schedule No. 51/751</b>								
<b>High Pressure Sodium Vapor Street Lighting Service</b>								
No. of Customers	686							
<b>Transmission &amp; Ancillary Services Charge</b>								
per kWh	16,084,697 kWh	0.019 ¢	\$3,056	0.020 ¢	\$3,217			
<b>Distribution Charge</b>								
Distribution Charge, per kWh	16,084,697 kWh	14.457 ¢	\$2,325,307	16.893 ¢	\$2,483,346	Total Rev	3,028,660	
<b>Energy Charge</b>						Change	199,901	7.1%
Sch 200, per kWh	16,084,697 kWh	2.988 ¢	\$480,611	1.918 ¢	\$308,505	Energy Rev	542,301	
Sch 201 TAM, per kWh	16,084,697 kWh			1.454 ¢	\$233,872	NPC Rev	233,946	
<b>Subtotal</b>			\$2,808,974		\$3,028,939			
Renewable Adjustment Clause, per kWh	16,084,697 kWh	0.161 ¢	\$25,896	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	16,084,697 kWh	-0.038 ¢	(\$6,112)	0.000 ¢	\$0			
<b>Total</b>	16,084,697 kWh		\$2,828,758		\$3,028,939			
				Change	\$200,180			
<b>Schedule No. 52/752</b>								
<b>Company-Owned Street Lighting Service</b>								
No. of Customers	79							
<b>Transmission &amp; Ancillary Services Charge</b>								
per kWh	1,185,726 kWh	0.015 ¢	\$178	0.016 ¢	\$190			
<b>Distribution Charge</b>								
Distribution Charge, per kWh	1,185,726 kWh	8.913 ¢	\$105,671	10.627 ¢	\$112,785	Total Rev	143,619	
<b>Energy Charge</b>						Change	9,479	7.1%
Sch 200, per kWh	1,185,726 kWh	2.289 ¢	\$27,141	1.469 ¢	\$17,418	Energy Rev	30,633	
Sch 201 TAM, per kWh	1,185,726 kWh			1.115 ¢	\$13,221	NPC Rev	13,215	
<b>Subtotal</b>			\$132,990		\$143,614			
Renewable Adjustment Clause, per kWh	1,185,726 kWh	0.124 ¢	\$1,470	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	1,185,726 kWh	-0.027 ¢	(\$320)	0.000 ¢	\$0			
<b>Total</b>	1,185,726 kWh		\$134,140		\$143,614			
				Change	\$9,474			
<b>Schedule No. 53/753</b>								
<b>Customer-Owned Street Lighting Service</b>								
No. of Customers	250							
<b>Transmission &amp; Ancillary Services Charge</b>								
per kWh	9,316,113 kWh	0.005 ¢	\$466	0.005 ¢	\$466			
<b>Distribution Charge</b>								
Distribution Charge, per kWh	9,316,113 kWh	5.355 ¢	\$495,092	6.150 ¢	\$528,630	Total Rev	631,919	
<b>Energy Charge</b>						Change	41,709	7.1%
Sch 200, per kWh	9,316,113 kWh	0.978 ¢	\$91,112	0.628 ¢	\$58,505	Energy Rev	102,838	
Sch 201 TAM, per kWh	9,316,113 kWh			0.476 ¢	\$44,345	NPC Rev	44,364	
<b>Subtotal</b>			\$586,670		\$631,946			
Renewable Adjustment Clause, per kWh	9,316,113 kWh	0.053 ¢	\$4,938	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	9,316,113 kWh	-0.015 ¢	(\$1,397)	0.000 ¢	\$0			
<b>Total</b>	9,316,113 kWh		\$590,211		\$631,946			
				Change	\$41,735			
<b>Schedule No. 54/754</b>								
<b>Recreational Field Lighting</b>								
<b>Transmission &amp; Ancillary Services Charge</b>								
per kWh	815,719 kWh	0.011 ¢	\$90	0.012 ¢	\$98			
<b>Distribution Charge</b>								
Basic Charge, Single Phase, per month	865 bill	\$6.00	\$5,190	\$6.00	\$5,190	Total Rev	74,736	
Basic Charge, Three Phase, per month	397 bill	\$9.00	\$3,573	\$9.00	\$3,573	Change	4,933	7.1%
Distribution Energy Charge, per kWh	815,719 kWh	5.716 ¢	\$46,626	6.177 ¢	\$50,387	Energy Rev	15,494	
<b>Energy Charge</b>						NPC Rev	6,684	
Sch 200, per kWh	815,719 kWh	1.683 ¢	\$13,729	1.080 ¢	\$8,810			
Sch 201 TAM, per kWh	815,719 kWh			0.819 ¢	\$6,681			
<b>Subtotal</b>			\$69,208		\$74,739			
Renewable Adjustment Clause, per kWh	815,719 kWh	0.091 ¢	\$742	0.000 ¢	\$0			
Klamath Rate Reconciliation Surcharge, per kWh	815,719 kWh	-0.018 ¢	(\$147)	0.000 ¢	\$0			
<b>Total</b>	815,719 kWh		\$69,803		\$74,739			
				Change	\$4,936			
<b>TOTAL OREGON</b>	13,392,810,002		\$947,357,466		\$1,050,108,446			
<b>Employee Discount</b>			(\$396,477)		(\$429,869)			
<b>TOTAL OREGON</b>			\$946,960,989		\$1,049,678,577			





Docket No. UE-210  
Exhibit PPL/1013  
Witness: William R. Griffith

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF THE STATE OF OREGON**

**PACIFICORP**

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**Exhibit Accompanying Reply Testimony of William R. Griffith  
FERC/Non-FERC Transmission Cost Breakout**

**August 2009**

PacifiCorp  
State of Oregon  
December 31, 2010 Unbounded Revenue Requirement Allocation by Load Size  
FERC Transmission Revenue

Description	(A) Residential (sec)	(B) General Service Schedule 23 0-15 kW (sec)		(C) General Service Schedule 23 15-51 kW (sec)		(D) Primary (pri)		(E) General Service Schedule 28 51-100 (sec)		(F) General Service Schedule 28 >100 kW (sec)		(G) Primary (pri)		(H) 0-300 kW (sec)		(I) General Service Schedule 30 300-500 (sec)		(J) Primary (pri)		(K) 1-4 MW (sec)		(L) Large Power Service Schedule 4RT 1-4 M (pri)		(M) Large Power Service Schedule 4RT > 4 MW (sec)		(N) Tanks (tm)		(O) Schedule 41 Irrigation		(P) Street Lgt (sec)			
		(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)	(sec)	(pri)		
1 Total Transmission Revenue Requirement	\$79,096	\$35,458	\$3,302	\$2,857	\$7	\$2,837	\$4,593	\$5,855	\$115	\$1,278	\$6,645	\$562	\$3,682	\$2,404	\$294	\$6,399	\$1,924	\$844	\$40														
2 FERC Transmission	1,990	862	82	73	0	69	122	153	3	34	175	15	98	61	7	163	48	25	0														
3 Peak Mw @ Generator	100.00%	43.31%	4.13%	3.65%	0.01%	3.49%	6.12%	7.69%	0.15%	1.69%	8.78%	0.74%	4.91%	3.07%	0.37%	8.18%	2.42%	1.28%	0.00%														
4 % of Total	\$37,588	\$16,281	\$1,554	\$1,370	\$3	\$1,312	\$2,301	\$2,890	\$57	\$636	\$3,301	\$279	\$1,844	\$1,155	\$138	\$3,076	\$910	\$480	\$0														
5 FERC Transmission Revenues		\$19,177	\$1,748	\$1,487	\$4	\$1,525	\$2,292	\$2,965	\$58	\$641	\$3,345	\$284	\$1,838	\$1,249	\$156	\$3,323	\$1,013	\$563	\$40														
6 Other Transmission Revenue Requirement																																	

