BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UE 180

In the Matter of)

PORTLAND GENERAL ELECTRIC,)

Request for a General Rate Revision.)

DIRECT TESTIMONY ON POWER COSTS

OF THE

CITIZENS' UTILITY BOARD OF OREGON

July 18, 2006

BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UE 180

In the Matter of PORTLAND GENERAL ELECTRIC, Request for a General Rate Revision.	DIRECT TESTIMONY ON POWER COSTS OF THE CITIZENS' UTILITY BOARD OF OREGON

Our names are Bob Jenks and Lowrey Brown, and our qualifications are listed in CUB Exhibits 101 and 102 respectively.

I. Introduction

CUB addresses three issues in this testimony: 1) PGE's proposal to include all or some of the 2005-06 Boardman outage in the plant's forced outage rate; 2) The use, for rate-setting purposes, of market purchases in Monet to serve load that will actually be served by Port Westward; and 3) Monet's failure to capture the extrinsic value of PGE's capacity resources.

II. Forced Outage Rate

In its filing, PGE proposes to use a 4-year rolling average to forecast the forced outage rate for its thermal units. However, the Company fails to remove last year's Boardman outage from this average. There are two problems with this. First, the 2005-06 Boardman outage was an extraordinary event, precisely the kind of event that is normalized out when forecasting a future test year. Second, the Company currently has a deferral docket open to seek recovery for this outage, so including it in the forced outage rate could allow the Company to recover its share of the outage costs from customers twice.

A. What PGE Is Asking For

In PGE's deferral filing for the Boardman outage, the Company asks the Commission to grant it full recovery – with no deadband or sharing of any kind – for costs incurred during the deferral period (net of savings from the foregone spring 2006 outage).[1] On top of this, the Company also proposes including whatever portion of the Boardman outage for which it does not receive recovery in its 4-year rolling average of forced outages.[2] PGE is essentially saying to the Commission that if the Company doesn't get what it considers to be adequate recovery in its Boardman deferral, then it shall put the costs of the Boardman outage in its forced outage rate instead.

B. Reality Check – Of Deferrals & Deadbands

Where has the Company been over the past decade? The Commission has a solid history of using a deadband for power cost deferrals: dockets UM 995 for PacifiCorp, UM 1007 for Idaho Power, and UM 1008/1009 for PGE. The Commission's Order in UM 1071, PGE's application for deferral of hydro replacement costs, states:

> In UM 995, for instance, we established a deadband around PacifiCorp's baseline of 250 basis points of return on equity. We allowed no recovery of costs or refunds to customers within that deadband, reasoning that the band represented risks assumed, or rewards gained, in the course of the utility business.

OPUC Order No. 04-108, page 9.

---

[1] UM 1234 PGE/100/Lesh/1.
[2] UE 180 PGE/400/Lesh-Niman/5.

Though UE 165 specifically addressed a power cost adjustment mechanism, the Commission's Order No. 05-1261 discusses deferrals as well. In describing what type of event qualifies for deferred accounting, the Commission writes:

> To determine whether an event is extraordinary and has substantial financial impact, the Commission has, in prior cases, examined whether the event impacted the utility's earnings beyond a reasonable range within which the utility should bear the entire cost or benefit of variability.

OPUC Order No. 05-1261, page 9.

Clearly, the Commission's discussions of deferrals are not questioning whether the utility should absorb a share of the costs of such an event. The Commission's discussions solely explore how much of the costs should properly be absorbed by the utility "in the course of the utility business." In proposing that its deferral for Boardman outage costs should have no deadband, PGE effectively thumbs its nose at the Commission, Staff, and the parties, all of whom have spent an inordinate amount of time working on the issues of deferrals and power cost adjustments.

C. Pick – One Or The Other, But Not Both

Deferrals serve one purpose, while the forced outage rate serves another. Deferrals provide recovery for exceptional events, while rolling averages account for normal variation that is part and parcel of forecasting a future test year. Deferrals have regulatory lag as well as a deadband and sharing bands to distribute the cost of non-recurring events between customers and shareholders. The use of a rolling average presumes that, in any given year, normal outages will cost more or less than the average, but, over time, the financial impact should balance between customers and shareholders.

The Company has made clear that it considers the 2005 Boardman outage to be an exceptional event:

> This is particularly true for such a major outage as the one causing the deferral application. A forced outage of this length is very rare for Boardman … and rare for the industry overall.

UM 1234 PGE/100/Lesh/5.

> Data provided by the North American Electric Reliability Council demonstrates that the 105 day length of the initial Boardman outage is extremely rare.

UM 1234 PGE/300/Drennan-Tinker-Hager/4.

Certainly, PGE's application for a deferral suggests the Company thinks the Boardman outage is an exceptional event, and, thereby, appropriate for deferral, and the Company also emphasizes the extreme nature of the event in its deferral testimony. Why then has the Company also included the Boardman outage in its forced outage rate?

D. Using A Deferral For The Boardman Outage

There are a number of reasons to use a deferral to address PGE's Boardman outage. Primarily, as explained above, the magnitude of the outage moves the event outside of the range of normal variation, and such an event should not be forecast for a future test year. As stated earlier, deferrals are for one-time events, and the financial impact of such an event will not, therefore, balance over time between customers and shareholders.

The lag between the beginning of the event and the deferral filing, as well as a deadband and appropriate sharing bands, serve to share the cost of an event between customers and the Company. Including the pre-deferral period – or any other undefined percentage of the Boardman outage – in the Company's forced outage rate, removes the appropriate cost sharing for this event. When the Commission grants what it considers to be appropriate recovery for an event in a deferral, that's it. The Commission has evaluated what it considers to be reasonable recovery for that event, and the Company cannot then turn around and charge customers for that event in a forced outage rate.

E. Forced Outage Rate Is Not The Appropriate Place For Boardman Recovery

The use of a forced outage rate is to capture the normal variation of plant availability. A forced outage rate should not be used for recovery of costs from an exceptional one-time outage.

i. The Boardman Outage Should Not Be Forecast As A Normal Event

This is not a perfect world and generating units are not available 100% of the time. We can look to past plant performance to get a sense of what a reasonable expectation for outages is, and it is appropriate to factor this into a future test year. However, there is no reason to believe that Boardman, or any other plant for that matter, will be off-line for the length of time that Boardman was during the 2005-06 outage. PGE itself calls this event "extremely rare," and "extremely rare" events are not forecast for ratemaking purposes. The catastrophic outage of 2005-06 is not likely to repeat itself and, as such, should not be forecast to repeat itself. By including the 2005-06 Boardman outage in the plant's 4-year average for its forced outage rate, Boardman's availability forecast would presume an event such as this once every four years, and this is extremely unlikely.

ii. Forced Outage Rate Is A Less Precise Method Of Cost Recovery

By including the 2005-06 Boardman outage in its forced outage rate, PGE proposes to recover the costs of the event in future rates through lower forecasts in the plant's availability. Never mind that the Company already has a deferral in place to address the cost of the Boardman outage. Through the forced outage rate, the Company would recover approximately a quarter of the cost of the outage each year for the next four years until the outage dropped off the end of the 4-year rolling average.

If the Commission were for some reason to decide the Company should get full recovery of the Boardman costs over four years, then it could amortize 100% of the Boardman replacement power costs over four years through UM 1234, PGE's deferral. Using the forced outage rate as a cost recovery mechanism for a specific event, instead of as an expected outage level forecast, is poor policy. As a cost recovery mechanism, the forced outage rate cannot be fair, because the recovery amount will depend on future power prices, and so be higher or lower than the actual outage cost.

For example, if the cost of replacing Boardman power averaged $50/MWh, but the forward price curve used in the next four power cost updates averaged $75/MWh, the Company would recover 150% of its actual costs in real terms. The opposite is also true. If the average cost per MWh over the next four years were less than $50, the Company would under-recover the actual costs.

A much better way to deal with cost recovery of an exceptional, one-time forced outage is through deferred accounting. This allows the Commission to consider the appropriate level of recovery, and authorize that recovery. By using a deferral, cost recovery is determined by regulatory oversight, rather than being left to the variability of the wholesale market.

iii. Cannot Perform Prudence Review Through Forced Outage Rate

Another reason that the forced outage rate is an inappropriate tool for the Boardman outage is that it circumvents any kind of prudence review. As PGE has pointed out, the 2005-06 Boardman outage is a rare event, and the Company's role both in the events leading up to the outage and the events addressing the outage need to be reviewed by the Commission. This is an important step before customers should be asked to pay any of the costs associated with the outage.

We have not yet seen the root cause analysis, and have no idea if the outage was caused by poor maintenance, a design flaw, or simple bad luck. Costs associated with the Boardman outage should not be amortized until the prudence review is complete; otherwise, customers may be charged for an outage for which the Company or the turbine manufacturer is liable. By including the Boardman outage in its forced outage rate, PGE can short-cut the prudence review process, and charge customers before the Commission, Staff, or intervenors have had a chance to evaluate whether the costs should be recoverable in the first place. Without such analysis, cost recovery is inappropriate.

F. CUB Recommendation On PGE's Forced Outage Rate

The Commission should exclude 2005 from Boardman's forced outage rate, and use instead either a 3-year average 2002 through 2004, or a 4-year average from 2001 through 2004. Regardless, 2005 contains an event that cannot reasonably be forecast for 2007, and should not be included in the Company's Boardman forced outage rate.

III. Phantom Open Position – Monet & Partial Year Of Port Westward

PGE proposes that rates for January and February 2007 be based on a Monet run without Port Westward. Monet would meet the load that would have been served by Port Westward (from March through December) with spot market purchases. The inherent assumption in this methodology is that the Company would leave a large open position, through the non-existence of Port Westward, and simply fill it with spot market purchases. The problem with this is that costs from the RVM are annualized, so the impact of Monet market purchases in March through December would impact the rates charged to customers in January and February rates.

This is further complicated by the fact that the cost of this phantom open position, and thereby the cost to customers in January and February, will not be known until after the Commission decision in this case when the Company updates its final Monet run. It is not hard to imagine circumstances, such as a serious hurricane season that impacts gas and power prices, which could affect the forward price curves this fall. The increased forward price curves would raise the cost of the phantom open position (March through December) which in turn would increase the rates charged to customers in January and February, because the cost of the open position is annualized in the RVM.

It is unrealistic for the Company to have such a large, unmanaged capacity left to the vagaries of the market. When Boardman went down, PGE purchased replacement power for the period the plant was expected to be down.[3] The Company recognizes that an open position creates risk, and actively manages them whenever possible. In the Company's proposal, customers would take the significant risk of the large, unmanaged open position in the Monet model, when that open position is not expected to exist in reality.

Port Westward is a large generating plant, and the capacity of the plant is modeled three different ways for this case:

A. January-February: Managed Pre-Port Westward Period. This represents the period of January and February, when Port Westward will not be operational, and the Company is actively managing its open position that will later be filled by Port Westward.

[3] UM 1234 PGE/200/Quennoz-Mayer/6.

B. March-December: Managed Post-Port Westward Period. Beginning in March, the Company will manage the capacity of the plant through its management of gas costs. Port Westward is expected to reduce the Company's net power cost. The variable costs of fuel and purchased power when Port Westward is running are expected to be $12 million less than they would have been without Port Westward.[4] Otherwise, Port Westward would not be prudent. This means that this cost is expected to be less than it would have been in the pre-Port Westward period.

C. March-December: Unmanaged Post-Port Westward Period. This is the phantom period, when the Company expects Port Westward to be up and running, but, for modeling purposes, the Company assumes Port Westward does not exist, and replaces the plant's expected output with market purchases priced at the forward price curve. While it can be assumed that this will be more costly than the managed post-Port Westward position (otherwise Monet would not dispatch Port Westward), we cannot know how much more costly until after the case is over, the Commission has issued its Order, and PGE releases its final Monet run.

The actual expected power cost for 2007 is the sum of Period A and Period B, and rates after March will be based on the sum of Period A and Period B. However, customer rates in January and February will be based on the sum of Period A and Period C. As costs in Period C are greater than in Period B, rates are being set at a rate that is higher than actual expected costs. The direction of this cost difference is clear, customers can only be over-charged, because, in Period B, if Port Westward is out of the money, it simply won't be run. How significant the cost difference is, however, will not be clear until after the case is decided.

[4] UE 180 PGE/300/Quennoz-Schue/36.

CUB proposes that the Company do one of two things to fix this:

First, PGE could simply use the sum of Period A and Period B, which is the closest to the expected actual variable cost. This method leaves the risk of Port Westward being delayed with the Company, where it should be. It is also the method PacifiCorp agreed to in UE 170, after CUB made a similar criticism of PacifiCorp's TAM proposal.

> Q. Does the Company's willingness to adopt Mr. Galbraith's recommendation to include variable costs associated with new resources in the RVM update address CUB's "phantom costs" argument?
>
> A. Yes, subject to the limitations of Oregon's used and useful statute. Incorporating variable costs associated with new resources will ensure customers' rates are based on all used and useful plant, and will eliminate reliance on the proxy market purchases, to which CUB was strongly opposed.

UE 170 PPL/702/Omohundro/3.

Another option is for the Company to remove from its Period C Monet run, an amount of load equal to the expected output of Port Westward. PGE's filing removes the supply associated with Port Westward, but leaves the load expected to be served by Port Westward. Removing the load in addition to the supply, would remove the full impact of Port Westward from the rates that will be in effect in January and February.

IV. Extrinsic Value

PGE's Monet model fails to recognize the extrinsic value of capacity resources, such as gas-fired generation plants and capacity contracts. Customers pay the fixed costs of such resources, but these plants and contracts are often dispatched to the market when conditions vary from what was forecast, and so the value of capacity resources is not captured by Monet. Under these circumstances, the benefits go solely to shareholders.

Monet does not fully utilize capacity resources, because it is variations from forecast conditions that change the spread between gas and electric prices such that these plants and contracts become economic. Under varied conditions, the Company may dispatch its capacity resources to serve load or to make profitable market sales, but, in either case, it is the shareholders who benefit. Capacity resources both mitigate cost increases (thus protecting shareholders from power cost increases they are paid a return to absorb),[5] and produce revenues from off-system sales (thus giving extra profits to shareholders). The versatility of capacity resources, resources paid for by customers, provides significant value that is not captured by Monet.

Staff, ICNU, and CUB testified to this issue both in PacifiCorp's annual power cost update for 2007,[6] and in regard to capacity contracts included in PGE's 2006 RVM.[7] In its 2006 RVM, PGE proposed that the fixed costs associated with capacity contracts should be paid by customers, even though, under normalized ratemaking, there is no benefit to customers from the contracts. Only non-normalized events dispatch these capacity contracts. Non-normalized costs and benefits are the utility's to absorb. Allowing a utility to charge customers 100% of the cost of capacity contracts and the fixed cost of generating units used significantly for capacity generation – all of which primarily serve to reduce non-normalized costs and generate sales revenue for the benefit of the Company – violates basic ratemaking principles. It is little more than customers paying the premium for insurance that protects and benefits shareholders.

[5] When power costs are materially higher than forecast, a utility may file a deferral to share some of those costs with customers.
[6] UE 179 CUB/100/Jenks/6-8, Staff/100/Wordley/9-17, & ICNU/100/Falkenberg/43-48.
[7] UE 172 CUB/100/Jenks/7-9, Staff/100/Galbraith/4-6, & ICNU/100/Falkenberg/11-15.

There are two ways to adjust for the extrinsic value of PGE's capacity resources. The Commission could impute revenue to account for the additional revenue that the units can be expected to produce. Alternatively, the Commission could reduce the share of the fixed costs charged to ratepayers in order to represent the share of the fixed costs associated with normalized usage. CUB is not recommending a specific adjustment to account for the extrinsic value of PGE's capacity resources, as we anticipate that other parties will do so. We urge the Commission to consider those proposals, and adopt an adjustment to account for the extrinsic value of PGE's capacity resources.

V. Conclusion

CUB recommends that the Commission:

- Exclude 2005 from Boardman's forced outage rate, and use instead either a 3-year average 2002 through 2004, or a 4-year average from 2001 through 2004;
- Adjust PGE's Monet forecast by either removing load equal to the expected output of Port Westward or, for the purpose of forecasting power costs, including Port Westward to come online as scheduled; and
- Adopt an adjustment to account for the extrinsic value of PGE's capacity resources.

WITNESS QUALIFICATION STATEMENT

NAME:	Bob Jenks
EMPLOYER:	Citizens' Utility Board of Oregon
TITLE:	Executive Director
ADDRESS:	610 SW Broadway, Suite 308 Portland, OR 97205
EDUCATION:	Bachelor of Science, Economics Willamette University, Salem, OR
EXPERIENCE:	Provided testimony or comments in a variety of OPUC dockets, including UE 88, UE 92, UM 903, UM 918, UE 102, UP 168, UT 125, UT 141, UE 115, UE 116, UE 137, UE 139, UE 161, UE 165, UE 167, UE 170, UE 172, UE 173, UG 152, UM 995, UM 1050, UM 1071, UM 1147, UM 1121, UM 1206, and UM 1209. Participated in the development of a variety of Least Cost Plans and PUC Settlement Conferences. Provided testimony to Oregon Legislative Committees on consumer issues relating to energy and telecommunications. Lobbied the Oregon Congressional delegation on behalf of CUB and the National Association of State Utility Consumer Advocates. Between 1982 and 1991, worked for the Oregon State Public Interest Research Group, the Massachusetts Public Interest Research Group, and the Fund for Public Interest Research on a variety of public policy issues.
MEMBERSHIP:	National Association of State Utility Consumer Advocates Board of Directors, OSPIRG Citizen Lobby Telecommunications Policy Committee, Consumer Federation of America Electricity Policy Committee, Consumer Federation of America

WITNESS QUALIFICATION STATEMENT

NAME	Lowrey R. Brown
EMPLOYER	Citizens' Utility Board of Oregon
TITLE	Utility Analyst
ADDRESS	610 SW Broadway, Suite 308 Portland, OR 97205
EDUCATION	Master of Science, Engineering Bachelor of Science, Civil Engineering Stanford University, Stanford California
EXPERIENCE	Provided comments and participated in settlement discussions in OPUC dockets AR 495, UE 161, UE 173, UM 1014, UM 1147, UM 1158, UM 1169, UM 1206, and UM 1209. Presented testimony and engaged in settlement proceedings in UE 165, UE 167, UE 170, UM 1121, and UM 1187. Participated in technical subcommittees for the Governor's Advisory Group on Global Warming, and in the Regional Representatives Group for Grid West. Currently involved in the development of PacifiCorp's and PGE's integrated resource plan. Prior to this, worked as a consultant with KEMA-Xenergy in Portland from 2002 to 2003 on energy and energy efficiency issues. Between 1997 and 2001, freelanced in Colorado for The Valley Journal, Solar Energy International, Energy Systems Engineering, and Resource Engineering providing writing and technical assistance.

CERTIFICATE OF SERVICE

I hereby certify that on this 18th day of July, 2006, I served the foregoing Testimony on Power Costs of the Citizens' Utility Board of Oregon in docket UE 180 upon each party listed below, by email and U.S. mail, postage prepaid, and upon the Commission by email and by sending 6 copies by U.S. mail, postage prepaid, to the Commission's Salem offices.

Respectfully submitted,

____
Jason Eisdorfer #92292
Attorney for Citizens' Utility Board of Oregon

W=Waive Paper service, Q=Confidential

JIM DEASON ATTORNEY AT LAW	521 SW CLAY ST STE 107 PORTLAND OR 97201-5407 jimdeason@comcast.net
ROBERT VALDEZ	PO BOX 2148 SALEM OR 97308-2148 bob.valdez@state.or.us
AF LEGAL & CONSULTING SERVICES	
ANN L FISHER ATTORNEY AT LAW	2005 SW 71ST AVE PORTLAND OR 97225-3705 energlaw@aol.com
BOEHM KURTZ & LOWRY	
KURT J BOEHM **(Q)** ATTORNEY	36 E SEVENTH ST - STE 1510 CINCINNATI OH 45202 kboehm@bkllawfirm.com
MICHAEL L KURTZ **(Q)**	36 E 7TH ST STE 1510 CINCINNATI OH 45202-4454 mkurtz@bkllawfirm.com
BONNEVILLE POWER ADMINISTRATION	
GEOFFREY M KRONICK LC7 **(Q)**	PO BOX 3621 PORTLAND OR 97208-3621 gmkronick@bpa.gov

CRAIG SMITH	PO BOX 3621--L7 PORTLAND OR 97208-3621 cmsmith@bpa.gov

BRUBAKER & ASSOCIATES, INC.

JAMES T SELECKY **(Q)**	1215 FERN RIDGE PKWY, SUITE 208 ST. LOUIS MO 63141 jtselecky@consultbai.com

CABLE HUSTON BENEDICT HAAGENSEN & LLOYD LLP

TAMARA FAUCETTE	1001 SW 5TH AVE STE 2000 PORTLAND OR 97204 tfaucette@chbh.com
CHAD M STOKES	1001 SW 5TH - STE 2000 PORTLAND OR 97204 cstokes@chbh.com

CITIZENS' UTILITY BOARD OF OREGON

LOWREY R BROWN **(Q)** UTILITY ANALYST	610 SW BROADWAY - STE 308 PORTLAND OR 97205 lowrey@oregoncub.org
JASON EISDORFER **(Q)** ENERGY PROGRAM DIRECTOR	610 SW BROADWAY STE 308 PORTLAND OR 97205 jason@oregoncub.org

COMMUNITY ACTION DIRECTORS OF OREGON

JIM ABRAHAMSON **(Q)** COORDINATOR	PO BOX 7964 SALEM OR 97303-0208 jim@cado-oregon.org

CONSTELLATION NEWENERGY INC

WILLIAM H CHEN REGULATORY CONTACT	2175 N CALIFORNIA BLVD STE 300 WALNUT CREEK CA 94596 bill.chen@constellation.com

DANIEL W MEEK ATTORNEY AT LAW

DANIEL W MEEK ATTORNEY AT LAW	10949 SW 4TH AVE PORTLAND OR 97219 dan@meek.net

DAVISON VAN CLEVE PC

S BRADLEY VAN CLEVE **(Q)**	333 SW TAYLOR - STE 400 PORTLAND OR 97204 mail@dvclaw.com

DEPARTMENT OF JUSTICE

STEPHANIE S ANDRUS **(Q)** ASSISTANT ATTORNEY GENERAL	REGULATED UTILITY & BUSINESS SECTION 1162 COURT ST NE SALEM OR 97301-4096 stephanie.andrus@state.or.us

EPCOR MERCHANT & CAPITAL (US) INC

LORNE WHITTLES MGR, PNW MARKETING	1161 W RIVER ST STE 250 BOISE ID 83702 lwhittles@epcor.ca

KAFOURY & MCDOUGAL

LINDA K WILLIAMS ATTORNEY AT LAW	10266 SW LANCASTER RD PORTLAND OR 97219-6305 linda@lindawilliams.net

LEAGUE OF OREGON CITIES

ANDREA FOGUE SENIOR STAFF ASSOCIATE	PO BOX 928 1201 COURT ST NE STE 200 SALEM OR 97308 afogue@orcities.org

MCDOWELL & ASSOCIATES PC

KATHERINE A MCDOWELL ATTORNEY	520 SW SIXTH AVENUE, SUITE 830 PORTLAND OR 97204 katherine@mcd-law.com

W **NORTHWEST ECONOMIC RESEARCH INC**

LON L PETERS	607 SE MANCHESTER PLACE PORTLAND OR 97202 lpeters@pacifier.com

NORTHWEST NATURAL

ELISA M LARSON **(Q)** ASSOCIATE COUNSEL	220 NW 2ND AVE PORTLAND OR 97209 elisa.larson@nwnatural.com
ALEX MILLER **(Q)** DIRECTOR, REGULATORY AFFAIRS	220 NW SECOND AVE PORTLAND OR 97209-3991 alex.miller@nwnatural.com

OREGON ENERGY COORDINATORS ASSOCIATION

KARL HANS TANNER **(Q)** PRESIDENT	2448 W HARVARD BLVD ROSEBURG OR 97470 karl.tanner@ucancap.org

PACIFICORP

LAURA BEANE MANAGER, REGULATION	825 MULTNOMAH STE 800 PORTLAND OR 97232-2153 laura.beane@pacificorp.com

W PORTAND CITY OF - OFFICE OF CITY ATTORNEY

BENJAMIN WALTERS DEPUTY CITY ATTORNEY	1221 SW 4TH AVE - RM 430 PORTLAND OR 97204 bwalters@ci.portland.or.us

W PORTLAND CITY OF - OFFICE OF TRANSPORTATION

RICHARD GRAY STRATEGIC PROJECTS MGR/SMIF ADMINISTRATOR	1120 SW 5TH AVE RM 800 PORTLAND OR 97204 richard.gray@pdxtrans.org

W PORTLAND CITY OF ENERGY OFFICE

DAVID TOOZE SENIOR ENERGY SPECIALIST	721 NW 9TH AVE -- SUITE 350 PORTLAND OR 97209-3447 dtooze@ci.portland.or.us

PORTLAND GENERAL ELECTRIC

RATES & REGULATORY AFFAIRS	RATES & REGULATORY AFFAIRS 121 SW SALMON ST 1WTC0702 PORTLAND OR 97204 pge.opuc.filings@pgn.com
DOUGLAS C TINGEY **(Q)**	121 SW SALMON 1WTC13 PORTLAND OR 97204 doug.tingey@pgn.com

PRESTON GATES ELLIS LLP

HARVARD P SPIGAL	222 SW COLUMBIA ST STE 1400 PORTLAND OR 97201-6632 hspigal@prestongates.com

SEMPRA GLOBAL

THEODORE E ROBERTS	101 ASH ST HQ 13D SAN DIEGO CA 92101-3017 troberts@sempra.com
LINDA WRAZEN	101 ASH ST, HQ8C SAN DIEGO CA 92101-3017 lwrazen@sempraglobal.com

SMIGEL ANDERSON & SACKS

SCOTT H DEBROFF	RIVER CHASE OFFICE CENTER 4431 NORTH FRONT ST HARRISBURG PA 17110 sdebroff@sasllp.com