



Oregon

John A. Kitzhaber, MD. Governor

Public Utility Commission

3930 Fairview Industrial Dr. SE
Salem, OR 97302

Mailing Address: PO Box 1088
Salem, OR 97308-1088

Consumer Services

1-800-522-2404

Local: (503) 378-6600

Administrative Services

(503) 373-7394

July 3, 2014

Via Electronic Filing

OREGON PUBLIC UTILITY COMMISSION
ATTENTION: FILING CENTER
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**RE: Docket No. UE 286: In the Matter of
PORTLAND GENERAL ELECTRIC COMPANY's Net Variable Power
Costs (NVPC) and Annual Power Cost Update (APCU).**

Enclosed for electronic filing in the above-captioned docket is the Public
Utility Commission Staff Joint Rebuttal Testimony.

/s/ Kay Barnes

Kay Barnes

Filing on Behalf of Public Utility Commission Staff

(503) 378-5763

Email: kay.barnes@state.or.us

c: UE 286 Service List (parties)

**PUBLIC UTILITY COMMISSION
OF OREGON**

UE 286

STAFF JOINT REBUTTAL TESTIMONY OF

**JOHN CRIDER
&
JORGE ORDONEZ**

**In the Matter of
PORTLAND GENERAL ELECTRIC COMPANY's
Net Variable Power Costs (NVPC) and
Annual Power Cost Update (APCU).**

July 3, 2014

CASE: UE 286
WITNESSES: JOHN CRIDER
& JORGE ORDONEZ

**PUBLIC UTILITY COMMISSION
OF
OREGON**

STAFF JOINT EXHIBIT 200

Rebuttal Testimony

July 3, 2014

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

2 A. My name is John Crider. I am employed by the Oregon Public Utility
3 Commission (OPUC) as a Senior Power Cost Analyst in the Energy
4 Resources and Planning Section of the Energy Division. My business address
5 is 3930 Fairview Industrial Drive SE, Salem, Oregon, 97302-1166.

6 My name is Jorge Ordonez. I am employed by the Oregon Public Utility
7 Commission (OPUC) as a Senior Financial Economist in the Energy
8 Resources and Planning Section of the Energy Division. My business
9 address is 3930 Fairview Industrial Drive SE, Salem, Oregon 97302-1166.

10 **Q. Are you the same John Crider who testified in Staff's opening**
11 **testimony in this proceeding?**

12 A. Yes. Staff's opening testimony included my exhibits, Exhibit Staff/100 through
13 Exhibit Staff/101.

14 **Q. Mr. Ordonez, please describe your educational background and work**
15 **experience.**

16 A. My Witness Qualification Statement is found in Exhibit Staff/201.

17 **Q. What is the purpose of your testimony?**

18 A. The purpose of our testimony is to address the issues raised by the Industrial
19 Customers of Northwest Utilities (ICNU) in its opening testimony regarding
20 PGE's Beaver point-to-point (PTP) transmission contract and wind integration
21 and Portland General Electric's (PGE or the Company) response to such
22 issues in PGE's reply testimony.

1 Mr. Crider provides testimony on the Beaver point-to-point transmission
2 contract and Mr. Ordonez supports testimony on the wind integration issue.

3 **Q. Have you prepared exhibits for this docket?**

4 A. Yes, we have prepared Exhibit Staff/202 and Exhibit Staff/203

5 **SUMMARY RECOMMENDATION**

6 **Q. What is your summary recommendation?**

7 A. Regarding the Beaver PTP contract, Staff recommends that the Commission
8 reject ICNU's adjustment and find the transmission contract to be used and
9 useful in the test year.

10 Regarding the wind integration issue, Staff believes that PGE's decision to
11 execute a contract to integrate its wind resources through the Bonneville
12 Power Administration (BPA) was reasonable. Therefore, Staff recommends
13 that the Commission not accept ICNU's recommendation to require PGE to
14 calculate net variable power costs as if it elected to self-supply wind
15 integration services for the entire 2015 test period.

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

17 A. Our testimony is organized as follows:

18 I. Issue 1: Beaver Point-to-Point Transmission Contract

19 II. Issue 2: Wind Integration

20 **I. BEAVER POINT-TO-POINT TRANSMISSION CONTRACT**

21 **Q. Please explain ICNU's position on the Beaver point-to-point**
22 **transmission contract.**

1 A. In its opening testimony, ICNU argues that the 531 MW-rated Beaver PTP
2 transmission contract with BPA is no longer used nor useful for transmitting
3 energy from PGE's Beaver plant since the output of that plant is now directly
4 connected to the PGE transmission system at the Trojan substation. ICNU
5 asserts that the Beaver PTP link will be partially used for the 216 MW
6 nameplate output of the new Port Westward II (PW2) plant, leaving 315 MW
7 of the transmission link capacity unused. ICNU claims that this 315 MW of
8 transmission capacity is not needed, not used or useful, and should not be
9 included in rates.

10 **Q. What is PGE's response to ICNU's issue?**

11 A. PGE points out that although ICNU's assertion that the output of the existing
12 Beaver plant is now connected directly to PGE's transmission system is true,
13 it is not true that the BPA Beaver PTP is unused. The Company explains that
14 although the output of three plants (Beaver, Port Westward I and Port
15 Westward II, when completed) is indeed connected to the Trojan substation,
16 ICNU has overstated the capacity of the transmission link between the Trojan
17 substation and PGE's grid. ICNU has assumed that the entire output of the
18 existing Beaver and Port Westward plants ($571 + 450 = 1021$ MW) can be
19 carried solely on existing PGE transmission. However, PGE points out that it
20 has only 855 MW of PGE-owned transmission capacity. Therefore, PGE
21 needs the BPA Beaver PTP capacity to carry the additional ($1021 - 855 =$
22 166 MW) existing plant capacity. The Beaver PTP will also be used for
23 transmission of the new PW2 plant (as correctly assumed by ICNU but at

1 rated output of 225 MW instead of ICNU's assumption of 216 MW). In
2 addition, the Beaver PTP transmission link is used to bring 100 MW of
3 contracted energy (PPA) into PGE's system from BPA. Summing up the
4 transmission needs for the Beaver PTP yields: 225 MW (PW2) + 100 MW
5 (PPA) + 166 MW (Beaver and Port Westward I) = 491 MW. According to
6 PGE, this yields an over capacity of 40MW on the Beaver PTP link.

7 **Q. Does the company believe this additional 40 MW is also used and**
8 **useful?**

9 A. Yes. The Company argues that the transmission corridor that the Beaver PTP
10 link is located in (the BPA "South of Allston" transmission path) is one of the
11 most used and constrained links in BPA's territory. PGE claims that the
12 access to an additional 40 MW of transmission in this area allows the
13 Company to better manage curtailments and derations on highly used
14 transmission lines, and provides the Company additional capacity for
15 redirecting power in times of heavy transmission use and heavy demand.

16 **Q. What is Staff's analysis regarding this assertion?**

17 A. Staff has verified PGE's claims regarding transmission capacity by examining
18 official resource postings on the OASIS site (see Staff Exhibit 202). Staff has
19 verified that PGE has 855 MW of rights on PGE transmission and thus has a
20 need to use BPA transmission for transmitting the remainder of the plant
21 capacity as described by the Company. Staff has also verified that the "South
22 of Allston" transmission path (also known as WECC Path 71) is recognized by
23 both WECC and BPA as a congested transmission path as described by PGE

1 in its testimony. Based on this information, Staff agrees with PGE's assertion
2 that the additional 40 MW of transmission capacity on the Beaver PTP line is
3 both used and useful.

4 **Q. What is Staff's recommendation about the Beaver point-to-point**
5 **transmission contract?**

6 A. Staff recommends that the Commission reject ICNU's argument that the
7 Beaver PTP transmission contract is not used or useful and find that no dollar
8 adjustment in revenue requirement is warranted due to this issue.

9 II. WIND INTEGRATION

10 **Q. Please summarize the issue raised in ICNU's opening testimony.**

11 A. In its opening testimony, ICNU recommended that "[t]he Commission should
12 require the Company to calculate [net variable power costs] as if it elected to
13 self-supply wind integration services for the entire [2015] test period."¹

14 **Q. What was the basis of ICNU's issue?**

15 A. ICNU presented two reasons. The first reason was that,

16 *the Company justified the cost of the Port Westward II facility on the*
17 *basis that it would be used to self-integrate wind, yet it has failed to*
18 *take the necessary steps to self-integrate by the time the facility will*
19 *be placed into service.*²

20 The second reason was that,

21 *[d]espite parties' promptings in the prior [Annual Power Cost Update]*
22 *proceeding for the Company to develop a more cost-effective wind*

¹ See Exhibit ICNU/100, Mullins/2, lines 13-14.

² See Exhibit ICNU/100, Mullins/4, lines 11-14.

1 *integration paradigm, the Company did not properly analyze, and*
2 *plan for, its April 4, 2014 balancing service election, which impacts*
3 *the first nine months in the test period. In fact the Company has not*
4 *shown that it has made sufficient progress in preparing its systems to*
5 *self-integrate wind in time for BPA's next balancing service election.*³

6 **Q. Does ICNU make a comparable recommendation in Docket No. UE 283**
7 **(PGE's general rate case)?**

8 A. Yes, ICNU offers an alternative recommendation in Docket No. UE 283.
9 ICNU recommends that if the Commission does not adopt ICNU's
10 recommendation to impute integration benefits for PW2 into NVPC for the
11 test year, that the Commission delay any cost recovery for PW2 until PGE
12 begins to use PW2 to self-integrate its wind resources.

13 **Q. What is Staff's response to these alternate proposals?**

14 A. To the extent that ICNU is arguing that acquisition of PW2 was not prudent if
15 it is not used to integrate wind-resources, the argument is properly raised in
16 the general rate case. The prudence of the acquisition of PW2 is not
17 properly addressed in connection with the Automatic Update Tariff (AUT) in
18 this docket. Staff intends to address the prudence of PW2 in the general
19 rate case. In this docket, Staff will examine the reasonableness of PGE's
20 wind integration costs during the test period.

21 **Q. What is PGE's response to ICNU's proposed adjustment?**
22

³ See Exhibit ICNU/100, Mullins/4, lines 14-19.

1

2 A. PGE asserts that three drivers led to PGE to elect VERBS 30/60 committed
3 scheduling at BPA's mid-period election in April 2014 for service beginning on
4 October 1, 2014, and ending September 30, 2015.

5 * The long period required for development, implementation, and testing of
6 necessary systems, software, and equipment;

7 * Integration of wind must be accomplished at the portfolio level; and

8 * Uncertainty regarding available election options and developing markets,
9 specifically a robust sub-hourly market.

10 **Q. What is Staff's analysis regarding ICNU's proposed adjustment to**
11 **wind integration costs?**

12 A. As PGE notes,

13 *ICNU proposes that PGE model its 2015 NVPC to reflect the*
14 *estimated net benefit of self-integration as if PGE had elected to self-*
15 *integrate Biglow Canyon and Tucannon for the April 2014 BPA mid-*
16 *rate-period election. This 2014 election would mean that PGE would*
17 *self-integrate beginning October 1, 2014 through September 30,*
18 *2015.⁴*

19 ICNU has not presented evidence to show that electing to self-integrate its
20 resources during all four quarters of the test year would have been a cost-
21 effective option for PGE. PW2 is not scheduled to come on-line until
22 sometime in the first quarter of 2015. Accepting that PGE would have

⁴ See Exhibit UE286/PGE 200, Niman-Peschka-Hager/6, lines 12-15.

1 sufficient generating resources to self-integrate its wind resources when PW2
2 comes on-line still leaves at least one-quarter and possibly as much as one-
3 half of the 12-month period between October 1, 2014, and September 30,
4 2015, in which PGE may not have sufficient resources to fully self-integrate.
5 It is not clear to Staff why the Commission should base an adjustment to
6 PGE's NVPC on the assumption PGE could self-integrate all its resources for
7 the entire test year and three months of the preceding year when the record
8 does not establish this assumption is accurate.

9 **Q. Could PGE have elected to start self-integrating its wind resources on**
10 **the date that PW2 comes on line, rather than waiting until the fourth**
11 **quarter of the test year to do so?**

12 A. It does not appear that PGE could have done so in a cost-effective manner.
13 BPA allowed wind integration customers to make a mid-rate period election in
14 April 14, 2014, for service beginning on October 1, 2014, and ending on
15 September 30, 2015.⁵

16 In response to Staff Data Request 510, PGE represented that the early
17 termination of VERBS service at any point during the two-year rate election
18 would be prohibitively costly and that PGE would be required to
19 pay/reimburse BPA for the remainder of the two-year election period.⁶ This
20 means that if PGE elected to terminate the BPA contract prior to September
21 30, 2015, it would still have to pay for the services it had originally contracted
22 for. Accordingly, even if PGE begins to self-integrate all of its resources in

⁵ See Exhibit UE286/PGE 200, Niman-Peschka-Hager/6, lines 17-19.

⁶ See part "a" of PGE response to Staff Data Request 510 in Docket No. UE283.

1 2015 when PW2 comes on line, PGE would still owe BPA for services
2 through September 30, 2015.

3 **Q. What is Staff's response to ICNU's assertion that ratepayers are entitled**
4 **to the integration benefits of PW2 on the first day it is in customer's**
5 **rates?**

6 A. Even if the Commission accepts the underlying premise of ICNU's
7 adjustment, that ratepayers are entitled to the integration benefits of PW2
8 starting the first day the plant is on line, the Commission must take into
9 account that BPA did not offer PGE an option to use BPA integration services
10 from October 1, 2014 until the date in 2015 when full self-integration became
11 possible for PGE. At the time that PGE entered into the BPA contract in April
12 2014, PGE did not have the option to use BPA to integrate its wind resources
13 from October 2014 until the time PW2 came on-line and self-integrate its
14 resources thereafter. PGE reasonably entered into the BPA contract for
15 twelve months of integration services, notwithstanding that PW2 was
16 scheduled to come on line during that period.

17 **Q. What is Staff's recommendation regarding ICNU's proposed adjustment**
18 **to PGE's wind integration costs?**

19 A. Staff believes that PGE's decision to enter into a contract with BPA to
20 integrate its wind resources for the first three quarters of the test year was
21 reasonable. Therefore, Staff recommends that the Commission not accept
22 ICNU's recommendation to require PGE to calculate net variable power costs

1 as if it elected to self-supply wind integration services for the entire 2015 test
2 period.

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

4 A. Yes.

5

CASE: UE 286
WITNESS: JORGE ORDONEZ

**PUBLIC UTILITY COMMISSION
OF
OREGON**

STAFF EXHIBIT 201

Witness Qualification Statement

July 3, 2014

WITNESS QUALIFICATION STATEMENT

NAME Jorge D. Ordonez

EMPLOYER Public Utility Commission of Oregon

TITLE Senior Financial Economist, Energy Resources and Planning Section

ADDRESS 3930 Fairview Industrial Drive SE, Salem, Oregon 97302-1166

EDUCATION AND TRAINING

Utility Management Certificate
Willamette University, Oregon, 2008

Certificate in Management of Hydropower Development
Swedish International Development Cooperation Agency, Sweden,
2006 & South Africa, 2007

Fulbright Scholar, MBA, concentration in finance
Willamette University, Oregon, 2005

Certificate in Project Appraisal and Management
Maastricht School of Management, Netherlands, 2002

BS, Mechanical Engineering, thermal power efficiency
Electrical & Mechanical Engineering School
San Antonio Abad University, Peru, 1998

EXPERIENCE

I received a Bachelors of Science degree in Mechanical Engineering from San Antonio Abad University in Cusco, Peru in 1998. Subsequently, as a Fulbright Scholar, I received an MBA with an emphasis in finance from Willamette University in 2005. From 1999 to 2008, I worked for a Peruvian power generation company and was promoted many times, working as an Engineer, Resource Scheduler, Manager of Economic Planning and Vice-President of Generation, Commercial and Trading. Since January 2009, I have been employed by the Public Utility Commission of Oregon as a Senior Financial Economist, evaluating utilities' issuance of securities, cost of capital, mergers and acquisitions, cost of service studies, marginal cost studies, rate spread and rate design, integrated resource plans, purchased natural gas costs, and power costs.

CASE: UE 286
WITNESSES: JOHN CRIDER
& JORGE ORDONEZ

**PUBLIC UTILITY COMMISSION
OF
OREGON**

STAFF EXHIBIT 202

**Exhibits in Support
Of Rebuttal Testimony**

July 3, 2014

Designated Network Resources Reported to PGE Transmission (1)

March 26, 2014

On-System or Off-System	Name of the Resource	Geographic Location of the plant (closest city or county, state)	Electrical Location (name of the interconnection bus)	Delivery POR Associated with Resource	Nameplate Capacity (2)	Amount of Capacity (MW) dedicated to Network Load (3)	Note	Network Customer	Originating CA	POD to TP's System	External Transmission Arrangements	Customer Energy (MW) Rights to Resource
OFF	Beaver Generation Plant (Units 1 - 8)	Columbia County, OR	Trojan 230 kV (PGE)	PGE.TROJAN	610	146.00	(7)	Portland General Electric Co.	PGE	BPAT.PGE	BPA Fm PTP 14507	531
OFF	Coyote Springs (Gas and Steam)	Boardman, OR	Slatt - McNary 500 kV Line (BPA)	PGE.COYSPR1	276	250.00		Portland General Electric Co.	PGE	BPAT.PGE	BPA Fm PTP 14507	250
OFF	Colstrip Project (Units 3 and 4)	Colstrip, MT	Colstrip 500 kV (NWE)	PGE.COLSTRIP	1556	270.00		Portland General Electric Co.	PGE	BPAT.PGE	BPA Fm PTP 14507	270
OFF	Boardman	Boardman, OR	Slatt 500 kV (BPA)	PGE.SLATT	575	379.00	(4)	Portland General Electric Co.	PGE	BPAT.PGE	BPA Fm PTP 14507	379
OFF	Priest Rapids	Columbia River, WA	Midway 230 kV (BPA)	PGE.MIDC	912	79.00		Portland General Electric Co.	GCPD	BPAT.PGE	BPA Fm PTP 14507	88
OFF	Wanapum	Columbia River, WA	Wanapum 230 kV (Grant PUD)	PGE.MIDC	986	89.00		Portland General Electric Co.	GCPD	BPAT.PGE	BPA Fm PTP 14507	81
OFF	Wells Project	Azwell, WA	Wells 230 kV (Douglas PUD)	PGE.MIDC	840	163.00		Portland General Electric Co.	GCPD	BPAT.PGE	BPA Fm PTP 14507	160
OFF	WWP System Sale	Contractually delivered at Mid-C	Contractually delivered at Mid-C	PGE.MIDC	N/A	150.00		Portland General Electric Co.	AVAT	BPAT.PGE	BPA Fm PTP 14507	150
OFF	Vansycle Wind	Pendleton, OR	Vansycle 69 kV (Vansycle Partners)	BPAPower	25	25.00		Portland General Electric Co.	BPAT	BPAT.PGE	BPAT 10174	25
ON	Beaver Generation Plant (Units 1 - 8)	Columbia County, OR	Trojan 230 kV (PGE)	PGE.TROJAN	610	410.00	(7)	Portland General Electric Co.	na(5)	na(5)	na(5)	na(5)
ON	Faraday (Units 1 - 6)	Clackamas County, OR	Faraday 115 kV (PGE)	PGE	46	46.00		Portland General Electric Co.	na(5)	na(5)	na(5)	na(5)
ON	North Fork (Units 1 and 2)	Clackamas County, OR	Faraday 115 kV (PGE)	PGE	58	58.00		Portland General Electric Co.	na(5)	na(5)	na(5)	na(5)
ON	Oak Grove (Units 1 and 2)	Clackamas County, OR	Faraday 115 kV (PGE)	PGE	44	44.00		Portland General Electric Co.	na(5)	na(5)	na(5)	na(5)
ON	Pelton (Units 1 - 3)	Jefferson County, OR	Round Butte 230 kV (PGE)	PGE	110	110.00		Portland General Electric Co.	na(5)	na(5)	na(5)	na(5)
ON	Round Butte (Units 1 - 3)	Jefferson County, OR	Round Butte 230 kV (PGE)	PGE	353	338.00		Portland General Electric Co.	na(5)	na(5)	na(5)	na(5)
ON	River Mill (Units 1 - 5)	Clackamas County, OR	River Mill 57 kV (PGE)	PGE	24	25.00		Portland General Electric Co.	na(5)	na(5)	na(5)	na(5)
ON	Sullivan (Units 1 - 13)	Clackamas County, OR	Sullivan 57 kV (PGE)	PGE	18	17.00		Portland General Electric Co.	na(5)	na(5)	na(5)	na(5)
ON	Mount Tabor	Portland, OR	Tabor 115 kV (PGE)	PGE	1	0.20		Portland General Electric Co.	na(5)	na(5)	na(5)	na(5)
ON	Lake Oswego	Lake Oswego, OR	Oswego 115 kV (PGE)	PGE	Not Reported	0.50		Portland General Electric Co.	na(5)	na(5)	na(5)	na(5)
ON	Covanta Marion	Brooks, OR	Chemawa to North Marion 57 kV Line (PGE)	PGE	10	15.00		Portland General Electric Co.	na(5)	na(5)	na(5)	na(5)
ON	Stone Creek	Faraday, OR	Oak Grove 115 kV (PGE)	PGE	12	10.00		Portland General Electric Co.	na(5)	na(5)	na(5)	na(5)
ON	Port Westward (Gas and Steam)	Columbia County, OR	Trojan 230 kV (PGE)	PGE.TROJAN	506	445.00	(6)	Portland General Electric Co.	na(5)	na(5)	na(5)	na(5)
ON	Portland Hydro	Multnomah County, OR	Bull Run 57 kV (PGE)	PGE	38	36.00		Portland General Electric Co.	na(5)	na(5)	na(5)	na(5)
OFF	BPA Federal Generation System	Pending clarification with network customer	Pending clarification with network customer	BPAPower	N/A	20.00		Bonneville Power Administration	BPAT	BPAT.PGE	BPA - 1801537	20

Notes:

- (1) Some listed resources may be temporarily un-designated pursuant to the Transmission Provider's Designation & Termination of Network Resources business practice
- (2) As reported in the WECC "Existing Generation and Significant Additions" report dated January 1, 2006
- (3) As stated in the Annual Load and Resource Information Update - PGE Network Integration Service letter dated 01/10/07.
- (4) PGE is share of the Boardman Project totals approximately 465 MW. PGE entered into a Long-Term Power Sales Agreement with San Diego Gas & Electric for 75 MW of the company's share of the Boardman Project leaving approximately 390 MW available for native load customers.
- (5) na: Not applicable to On-System Designated Network Resources (Order 890-A P 839)
- (6) Port Westward DNR Capacity increased to 445 MW beginning 01/01/2009 as reported on DNR Form dated 12/15/2008
- (7) Beaver's output is split between On-System and Off-System DNRs due to internal delivery path's impact on South of Alliston flow gate.

Totals

1551	Off-System Resource Designations By PGE Merchant
1555	On-System Resource Designation by PGE Merchant
20	Off-System Resource Designation by Others

CERTIFICATE OF SERVICE

UE 286

I certify that I have, this day, served the foregoing document upon all parties of record in this proceeding by delivering a copy in person or by mailing a copy properly addressed with first class postage prepaid, or by electronic mail pursuant to OAR 860-001-0180, to the following parties or attorneys of parties.

Dated this 3rd day of July, 2014 at Salem, Oregon



Kay Barnes
Public Utility Commission
3930 Fairview Industrial Drive SE
Salem, Oregon 97302
Telephone: (503) 378-5763

UE 286
SERVICE LIST

CITIZENS' UTILITY BOARD OF OREGON	
OPUC DOCKETS	610 SW BROADWAY, STE 400 PORTLAND OR 97205 dockets@oregoncub.org
ROBERT JENKS (C)	610 SW BROADWAY, STE 400 PORTLAND OR 97205 bob@oregoncub.org
G. CATRIONA MCCRACKEN (C)	610 SW BROADWAY, STE 400 PORTLAND OR 97205 catriona@oregoncub.org
DAVISON VAN CLEVE PC	
S BRADLEY VAN CLEVE (C)	333 SW TAYLOR - STE 400 PORTLAND OR 97204 bvc@dvclaw.com
DAVISON VAN CLEVE, PC	
TYLER C PEPPLER	333 SW TAYLOR SUITE 400 PORTLAND OR 97204 tcp@dvclaw.com
ENERGY STRATEGIES LLC	
KEVIN HIGGINS	215 STATE ST - STE 200 SALT LAKE CITY UT 84111-2322 khiggins@energystrat.com
MOUNTAIN WEST ANALYTICS	
BRADLEY MULLINS (C)	333 SW TAYLOR STE 400 PORTLAND OR 97204 brmullins@mwanalytics.com
NOBLE AMERICAS ENERGY SOLUTIONS, LLC	
GREG BASS	401 WEST A ST., STE. 500 SAN DIEGO CA 92101 gbass@noblesolutions.com
NORTHWEST NATURAL	
E-FILING	220 NW 2ND AVE PORTLAND OR 97209 efiling@nwnatural.com
MARK R THOMPSON	220 NW 2ND AVE PORTLAND OR 97209 mark.thompson@nwnatural.com
PACIFIC POWER	
SARAH WALLACE	825 NE MULTNOMAH ST STE 1800 PORTLAND OR 97232 sarah.wallace@pacificcorp.com
PACIFICORP, DBA PACIFIC POWER	
OREGON DOCKETS	825 NE MULTNOMAH ST, STE 2000 PORTLAND OR 97232 oregondockets@pacificorp.com
PORTLAND GENERAL ELECTRIC	

DOUGLAS C TINGEY (C)	121 SW SALMON 1WTC1301 PORTLAND OR 97204 doug.tingey@pgn.com
JAY TINKER (C)	121 SW SALMON ST 1WTC-0702 PORTLAND OR 97204 pge.opuc.filings@pgn.com
PUBLIC UTILITY COMMISSION OF OREGON	
JOHN CRIDER (C)	PO BOX 1088 SALEM OR 97308-1088 john.crider@state.or.us
PUC STAFF--DEPARTMENT OF JUSTICE	
STEPHANIE S ANDRUS (C)	BUSINESS ACTIVITIES SECTION 1162 COURT ST NE SALEM OR 97301-4096 stephanie.andrus@state.or.us
MICHAEL T WEIRICH (C)	BUSINESS ACTIVITIES SECTION 1162 COURT ST NE SALEM OR 97301-4096 michael.weirich@state.or.us
RICHARDSON ADAMS, PLLC	
GREGORY M. ADAMS	PO BOX 7218 BOISE ID 83702 greg@richardsonadams.com