EXHIBIT NO. ___(DEM-8CT)
2013 PSE PCORC
WITNESS: DAVID E. MILLS

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Petition of PUGET SOUND ENERGY, Inc. For an Accounting Order Authorizing Accounting Treatment Related to Payments for Major Maintenance Activities	**Docket No. UE-130583**
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant, v. PUGET SOUND ENERGY, INC., Respondent.	**Docket No. UE-130617**
In the Matter of the Petition of PUGET SOUND ENERGY, Inc. For an Accounting Order Authorizing the Sale of the Water Rights and Associated Assets for the Electron Hydroelectric Project in Accordance with WAC 480-143 and RCW 80.12.	**Docket No. UE-131099**
In the Matter of the Petition of PUGET SOUND ENERGY, Inc. For an Accounting Order Authorizing the Sale of Interests in the Development Assets Required for the Construction and Operation of Phase II of the Lower Snake River Wind Facility	**Docket No. UE-131230**

PREFILED REBUTTAL TESTIMONY (CONFIDENTIAL) OF DAVID E. MILLS ON BEHALF OF PUGET SOUND ENERGY, INC.

AUGUST 28, 2013

REDACTED VERSION

PUGET SOUND ENERGY, INC.

PREFILED REBUTTAL TESTIMONY (CONFIDENTIAL) OF DAVID E. MILLS

CONTENTS

PUGET SOUND ENERGY, INC.

PREFILED REBUTTAL TESTIMONY (CONFIDENTIAL) OF DAVID E. MILLS

I. INTRODUCTION

Q. Are you the same David E. Mills who provided prefiled direct and supplemental testimonies in this docket on behalf of Puget Sound Energy, Inc. ("PSE")?

A. Yes, I filed prefiled direct testimony, Exhibit No. ___(DEM-1CT), and three supporting exhibits, Exhibit No. ___(DEM-2) through Exhibit No. ___(DEM-4C) on April 25, 2013. In addition, I filed prefiled supplemental direct testimony, Exhibit No. ___(DEM-5CT) and two supporting exhibits, Exhibit No. ___(DEM-6) and Exhibit No. ___(DEM-7C) on July 2, 2013.

Q. What is the purpose of this prefiled rebuttal testimony?

A. First, this prefiled rebuttal testimony provides an update to PSE's requested rate relief in this power cost only rate case ("PCORC").

Second, this rebuttal testimony responds to the power cost adjustment proposals:

- to remove the proposed power purchase agreement related to the Electron Hydroelectric Project (the "Electron PPA") as proposed by Mr. David C. Gomez, witness for the Staff of the Washington Utilities and Transportation Commission ("Commission Staff"), Exhibit No. ___(DCG-1CT);
- to remove the costs associated with PSE's contract with Bio Energy (Washington), LLC for the purchase of the

pipeline quality biogas produced by the Cedar Hills Regional Landfill facility ("Cedar Hills biogas"), as proposed by Mr. Edward J. Keating, witness for Commission Staff, Exhibit No. ___(EJK-1CT); and

- to update rate year power costs to reflect the Bonneville Power Administration's ("BPA") Administrator's Final Record of Decision ("Final ROD") in its 2014 Power and Transmission Rate Adjustment Proceeding ("BPA 2014 Rate Case"), as proposed by Mr. Donald Schoenbeck, witness for the Industrial Customers of Northwest Utilities ("ICNU"), Exhibit No. ___(DWS-1T).

Third, this prefiled rebuttal testimony describes and presents an update of PSE's projected rate year power costs for this proceeding's rate year November 1, 2013 through October 31, 2014 (the "rate year"), based on more recent known and measurable information, and Commission Staff's concurrence that the rate year power costs should be updated with the information related to the most recent gas prices available, as noted in my prefiled direct testimony, prior to the implementation of new rates in this proceeding.

Fourth, this prefiled rebuttal testimony provides a summary of the resource acquisitions and transmission renewals for which PSE requests a prudence determination.

Fifth, this prefiled rebuttal testimony responds to the recommendation of Ms. Juliana Williams, witness for Commission Staff, in Exhibit No. ___(JMW-1T), regarding a Dispatchable Standby Generation program.

Sixth, this prefiled rebuttal testimony discusses the proposal of Mr. Sebastian Coppola, witness for the Public Counsel section of the Washington State Attorney

General's Office ("Public Counsel"), Exhibit No. ___(SC-1T), to modify PSE's power cost adjustment ("PCA") mechanism.

Last, this prefiled rebuttal testimony introduces the other witnesses providing prefiled rebuttal direct testimony.

II. UPDATE TO REQUESTED RATE RELIEF

Q. What rate relief is PSE requesting in this rebuttal filing?

A. This filing reflects a decrease in the requested rate recovery from that presented in PSE's prefiled supplemental case and supports PSE's proposal to decrease rates for electric customers by $1,048,707 - an average 0.05 percent decrease from the electric PCA mechanism rates set in PSE's 2011 general rate case, Docket Nos. UE-111048 and UG-111049 (the "2011 GRC"), that became effective on May 14, 2012. For purposes of comparison, PSE's supplemental request in this proceeding was to increase rates for electric customers by $491,934, or an average 0.02 percent increase from current rates. Please see Exhibit No. ___(KJB-12T) for a discussion of the revenue requirement calculation.

III. COMMISSION STAFF AND ICNU PROPOSED ADJUSTMENTS

A. <u>Commission Staff Adjustment for Electron</u>

Q. Please summarize Commission Staff's Electron PPA adjustment.

A. Commission Staff has proposed an adjustment to remove the proposed power purchase agreement with Electron Hydro LLC ("Electron Hydro") related to the

Electron Hydroelectric Project (the "Electron Project") due to the uncertainty of when the Electron PPA may be finalized. This adjustment reduces rate year power costs $1.4 million by removing 51,501 megawatt hours ("MWhs") of generation projected to be received under the Electron PPA and replacing it with market priced power, as modeled per the AURORA hourly dispatch model.

Q. Do you agree with Commission Staff's Electron PPA adjustment?

A. Yes, with a modification. As noted in the prefiled rebuttal testimony of Mr. Paul K. Wetherbee, Exhibit No. ___(PKW-16CT), PSE agrees that the date of executing the Electron PPA is uncertain and agrees to remove the Electron PPA from rate year power costs. This means the sale date of the Electron Project is also not certain. Whereas Commission Staff has replaced all Electron PPA generation with market purchases, PSE is proposing that the Electron Project should remain as a PSE owned resource for purposes of determining rate year power costs, providing limited forecast hydroelectric generation given the Electron Project's current capacity limitations throughout the rate year.

Q. What is the impact to power costs for including the Electron Project as an owned resource during the rate year?

A. As noted in my prefiled supplemental testimony, the Electron Project's generation is forecast using the 70-year historical Westside streamflow records (1929 through 1998), to be consistent with PSE's Mid-C generation forecast methodology. The Electron Project is currently limited in its ability to generate power due to the poor operating condition of the flume, and the rate year generation reflects this reduced capability. The effect of retaining the Electron Project as an owned asset in the AURORA model decreased power costs an additional $2.2 million. In short, PSE proposes to replace the Electron PPA with power generated at no variable cost and reduce rate year power costs by $3.6 million, as shown in Table 3 later in my testimony.

B. Commission Staff Adjustment for Cedar Hills Biogas

Q. Please summarize Commission Staff's adjustment for the Cedar Hills biogas contract.

A. Commission Staff has proposed an adjustment to remove the contract costs associated with PSE's contract with Bio Energy (Washington), LLC for the purchase of the pipeline quality gas produced by the Cedar Hills Regional Landfill facility ("Cedar Hills") which reduces power costs $2.0 million.

Q. Does PSE agree with Commission Staff's adjustment for the Cedar Hills biogas contract?

A. PSE agrees to remove the costs of this contract from rate year power costs and has reduced power costs $2.0 million. Please see the prefiled rebuttal testimony of Mr. William F. Donahue, Exhibit No. ___(WFD-1CT) for an explanation of PSE's Cedar Hills biogas contract and the benefits provided to PSE's customers.

C. **<u>ICNU Adjustment for Transmission Costs</u>**

Q. Please summarize ICNU's adjustment to the costs of transmission for the rate year.

A. ICNU has proposed to accept PSE's request to update rate year power costs to reflect BPA's Final ROD filed subsequent to the supplemental filing in this proceeding. Rate year power costs were reduced $3.1 million as BPA's Final ROD rates were lower than those published in the Federal Register on November 8, 2012.

Q. Does PSE agree with ICNU'S transmission cost adjustment?

A. Yes. The transmission costs included in the Not in Models calculation supporting rate year power costs have been updated to reflect BPA's 2014 Rate Case Final ROD rates shown in Table 1 below, reducing rate year power costs $3.1 million.

Table 1. BPA 2014 Rate Case Final ROD versus Current Rates

Service	Volumetric Measure	Current Rate	Final ROD Rate	Rate Change
Integration of Resources	$/kW/mo	1.498	1.736	15.9%
Point to Point	$/kW/mo	1.298	1.479	13.9%
Scheduling, System Control & Dispatch	$/kW/mo	0.203	0.257	26.6%
Operating Reserve - Spinning Reserve	$/MWh	11.20	10.86	(3.0%)
Operating Reserve – Supplemental Reserve	$/MWh	9.52	9.95	4.5%
Variable Energy Resource Balancing Service (VERBS)				
		Uncommitted	Committed 30/60	
Regulating Reserve	$/kW/mo	0.08	0.08	0.0%
Following Reserve	$/kW/mo	0.37	0.36	(2.7%)
Imbalance Reserve	$/kW/mo	0.78	0.80	2.6%
Total for PSE's Wind Facilities	$/kW/mo	1.23	1.20	(2.4%)
		Uncommitted	Uncommitted	
Klondike III PPA	$/kW/mo	1.23	1.48	20.3%
WNP, based on FPT-14.3	$/MW/mo	880.00	1,024.00	16.4%
Southern Intertie	$/kW/mo	1.293	1.128	(12.8%)

D. <u>Summary of Agreed Upon Adjustments</u>

Q. Would you please summarize the adjustments that you have included in rate year power costs that were proposed by ICNU and Commission Staff?

A. Yes. Table 2 details the adjustments proposed by ICNU and Commission Staff that have been included in rate year power costs in this rebuttal filing.

Table 2. 2013 PCORC Agreed Upon Adjustments

	AURORA	Not in Models	Total
Electron PPA removed	($1,414)		($1,414)
BPA 2014 Rate Case Final Record of Decision		($3,089)	($3,089)
Cedar Hills biogas removed		($1,984)	($1,984)
Adjustments Proposed by Commission Staff & ICNU	($1,414)	($5,073)	($6,487)

Q. Were there any other items discussed in Commission Staff or ICNU's testimonies that you would like to address?

A. Yes. I would like to recognize and promote the acceptance of Commission Staff witness David Gomez's recommendation[1] that PSE has provided information meeting the Commission's request from the 2011 GRC to "…present more detail concerning the historical data and modeling upon which the Company forecast of wind integration costs depend".[2]

Q. Do you have comments regarding any other proposals?

A. Yes, I would like to comment on Commission Staff's proposal to extend the rate year one month - from November 1, 2013 through October 31, 2014 to December 1, 2013 through November 30, 2014 – as discussed in the prefiled rebuttal testimony of Katherine J. Barnard, Exhibit No. ___(KJB-12T). While pushing out a twelve month period by one month may seem insubstantial, I would urge the Commission to consider the time and effort PSE spends to develop not only the rate year power costs, but its entire regulatory filing.

---

1 See discussion beginning at line 11 of page 9 of the testimony of Mr. David C. Gomez, Exhibit No. ___(DCG-1CT).

2 *WUTC v. Puget Sound Energy, Inc*., Dockets UE-111048 and UG-111049, Order 08, ¶ 253, (May 7, 2012).

To ensure the accuracy of rate year power costs, PSE checks each of the assumptions to the AURORA hourly dispatch model to make sure that they reflect PSE's current information for each month of the rate year. This requires taking rigorous steps to update all of the operating parameters for PSE's gas fired generators, ensure contract volumes, rates and capacities are current, confirm PSE load reflects the current approved load forecast, verify gas price inputs are consistent with regulatory requirements, ensure hydro generation reflects PSE's ownership shares, check all resources reflect current planned maintenance schedules, etc. If one more month were added to the rate year's end and the beginning month removed, PSE would need to reevaluate all of the PSE information included in the AURORA model for the additional month.

In addition, the power cost summary containing the AURORA model download information and the Not in Models calculations are contained in MS Excel spreadsheets. These spreadsheets would require manual updates to change the rate year months and the additional month's information would need to be either validated or gathered. The updated rate year for each of the nearly thirty interlinked MS Excel files would need to be reviewed and again checked to ensure the modifications to the files did not alter their accuracy, all references remained intact and the modifications made to change the rate year did not harm the integrity of the files.

In short, it would require several weeks to ensure rate year power costs were in proper form to be audited by the parties in this proceeding, prior to being handed off to the regulatory group to determine the impacts on revenue requirements.

Once that process is complete, the over 300 workpapers supporting the rate year power costs would need to be reviewed and updated, and both my testimony and supporting exhibits would need to be revised to reflect the power costs for the new rate year. For these reasons, I urge the Commission to not accept Commission Staff's proposal to modify the rate year in this proceeding.

IV. UPDATE TO PROJECTED POWER COSTS

A. Summary of Power Cost Updates

Q. Please summarize the update of power costs provided in this rebuttal testimony.

A. Projected rate year net power costs in this rebuttal filing are $734.3 million—an $8.5 million *decrease* from the supplemental filing's power costs of $742.8 million and a $75.8 million *decrease* from amounts set in current rates. PSE's power cost projections for the rate year are significantly lower—over *nine* percent lower—than the power cost projections currently in PSE's rates.

Please see Exhibit No. ___(DEM-9) and Exhibit No. ___(DEM-10C) for the updated rate year power costs. As discussed in the Prefiled Rebuttal Direct Testimony of Ms. Katherine J. Barnard, Exhibit No. ___(KJB-12T), PSE has updated the revenue requirement to reflect these updated power costs.

Q. Has PSE reconciled the projected power costs filed on July 2, 2013 to the updated projected power costs?

A. Yes. Please see Exhibit No. ___(DEM-9) and Exhibit No. ___(DEM-10C) for a comparison of the updated rate year power cost projections to those filed in this proceeding and to those currently reflected in rates. Table 3 below also lists the changes to projected power costs for the rate year since the supplemental filing of July 2, 2013.

Table 3. 2013 PCORC Rate Year Power Cost Forecast

($ in thousands)

	AURORA	Not in Models	Total	Load (MWhs)
Supplemental Power Costs – 6.3.13 prices	$499,712	$243,087	$742,800	22,890,882
Electron PPA removed	($1,414)		($1,414)	
BPA 2014 Rate Case Final Record of Decision		($3,089)	($3,089)	
Cedar Hills biogas removed		($1,984)	($1,984)	
Adjustments Proposed by Commission Staff & ICNU	($1,414)	($5,073)	($6,487)	
Electron Project remains owned asset	($2,192)		($2,192)	
Gas Price, Hedge & Basis Differential Update	($7,456)	$5,920	($1,536)	
Colstrip Planned Outage Increase	$951		$951	
Transmission Reassignments Update for Actuals		$410	$410	
Sumas Gas-Fired Turbine assumption	($329)		($329)	
Mid-C Contract costs		$702	$702	
Other		$12	$12	
Updates Proposed by PSE	($9,025)	$7,044	($1,981)	
Total Updates	($10,439)	$1,971	($8,468)	
Rebuttal Power Costs – 8.5.13 prices	$489,274	$245,058	$734,332	22,890,882

Q. How did PSE update projected power costs for the rate year?

A. In addition to reflecting the specific adjustments proposed by ICNU and Commission Staff discussed above, PSE updated forward market gas prices, as agreed to by Commission Staff[3] and resource assumption inputs to the EPIS, Inc. AURORA hourly dispatch model utilized by PSE in regulatory proceedings as discussed further below. Additionally, PSE updated cost projections outside of the AURORA model to reflect these and other changes as noted below. PSE made these updates to rate year power costs to reflect current changes in power cost assumptions and inputs from those proposed in my prefiled supplemental testimony.

Q. What changes did PSE make to the AURORA model database for this rebuttal filing?

A. PSE updated the AURORA model database to consider:

(i) the replacement of the Electron PPA with PSE's continued ownership of the Electron Project, as discussed above;

(ii) the three-month average forward gas prices at August 5, 2013[4] and the short-term rate year power hedges as of the same date;

(iii) revised planned maintenance dates for the Colstrip Units 1 & 2; and

(iv) a correction to the Sumas Generating Station heat rate.

---

3 See discussion beginning at line 13 of page 18 of the testimony of Mr. David C. Gomez, Exhibit No. ___(DCG-1CT).

4 Gas Price cutoff date included in the Prefiled Direct Filing was March 5, 2013. The gas price cutoff date included in the Prefiled Supplemental Direct Filing was June 3, 2013.

As shown in Exhibit No. ___(DEM-10C), these updates decreased the AURORA modeled power costs for the rate year by $10.4 million from the AURORA power costs filed on July 2, 2013.

Q. What changes did PSE make to forecast power costs outside of the AURORA model?

A. PSE adjusted costs outside of the AURORA model—the Not in Models costs—to reflect:

(i) the two adjustments proposed by Commission Staff and ICNU discussed above to:

(a) remove the Cedar Hills biogas contract costs, and

(b) update forecast transmission costs to reflect the updated rates from the BPA 2014 Rate Case,

(ii) the mark-to-market calculation for gas for power contracts in place at August 5, 2013, which also included updating the basis differential forecast for the rate year; and

(iii) other power cost updates for:

(a) updated transmission reassignment revenues to reflect the more current twelve month actual transmission revenues, and

(b) updated rate year forecast auction revenues under PSE's Mid-Columbia ("Mid-C") contract with the Public Utility District No. 2 of Grant County, Washington ("Grant PUD") to reflect lower forecast market prices.

As shown in Table 3 above and Exhibit No. ___(DEM-7C), these changes increased the Not in Models costs by $2.0 million.

B. <u>Electron Project Remains an Owned Asset</u>

Q. Please summarize the adjustment included in AURORA for retaining the Electron Project as an owned asset.

A. As noted above, PSE agrees with Commission Staff to remove the Electron PPA and reinstate the Electron Project as an owned resource in the rate year. Thus, the rate year is forecast to benefit from 64,950 MWh of hydroelectric generation at no variable power cost. Since this generation will reduce PSE's net need to purchase power during the rate year, the AURORA modeled power costs decreased $2.2 million.

C. <u>Natural Gas Price Update</u>

Q. What natural gas prices did PSE use for the rate year in running its AURORA model for this supplemental filing?

A. PSE used a three-month average of daily forward market gas prices for the rate year for each trading day in the three-month period ending August 5, 2013. PSE input these data and the rate year fixed-price short-term power contracts in place at August 5, 2013 into the AURORA model for each of the months in the rate year. This is the same methodology as described in my prefiled direct testimony, Exhibit No. ___(DEM-1CT).

For purposes of comparison, the updated average price at Sumas for the rate year is $3.99/MMBtu. This updated average price is $0.22/MMBtu lower than the average price of $4.21/MMBtu used in PSE's supplemental filing on July 2, 2013, which used a three-month average of daily forward market gas prices for the rate year for each trading day in the three-month period ending June 3, 2013. The AURORA modeled rate year power cost decreased by $7.5 million as a result of this update.

Q. Did updating the rate year natural gas prices affect the mark-to-market calculation in Not in Models?

A. Yes. PSE also updated the projected power costs outside of the AURORA model to reflect fixed-price natural gas contracts, any premiums and discounts associated with index power and gas for power contracts that are in place at August 5, 2013 and an updated forward price forecast of the basis differential between the Alberta Energy Company ("AECO") and Station 2 gas hubs provided by a contracted independent third party, Wood Mackenzie. Please see my prefiled direct testimony for a description of the methodology followed in accordance with the 2011 GRC to update this cost difference between Station 2 and Sumas, also known as the "basis differential". The Not in Models mark-to-market adjustment represents (i) the difference between the fixed price of the short-term gas for power contracts and forward gas prices, and (ii) the benefit of firm gas transportation contracts. The updated Not in Models mark-to-market adjustment increased costs for the rate year by $5.9 million, which increased the total mark-to-market benefit from a credit of $15.1 million (as included in the supplemental filing on July 2, 2013) to a credit of $9.2 million (as included in this rebuttal filing).

Q. Please explain the change to forecast power costs caused by the update to rate year gas prices.

A. The rate year power costs were decreased by $1.5 million to reflect the three-month average forward gas prices at August 5, 2013. This routine update includes updates to

(i) the AURORA model for the more recent gas prices and fixed-price short-term rate year power contracts in place at the pricing date, and

(ii) the Not-in-Models costs to reflect the updated forecast gas prices and the more current fixed-price short-term natural gas for power contracts and index-based power and gas for power contracts.

D. Colstrip Unit 1 & 2 Planned Maintenance Update

Q. Please explain the changes to the AURORA inputs for the Colstrip units 1 and 2 planned maintenance.

A. As discussed in the prefiled rebuttal testimony of Mr. L. Edward Odom, Exhibit No. ___(LEO-4T), Colstrip units 1 and 2 were originally planned to be derated for a total of 43 days during the rate year The more current maintenance schedule has increased the number of days the units will be derated during the rate year to a combined 98 days. Rate year power costs increased nearly $1.0 million as a result of this increase to Colstrip unit 1 and 2 planned maintenance.

E. Gas-Fired Turbine Assumptions

Q. Please explain the changes to the operating characteristics for PSE's gas-fired turbines which were input to the AURORA model.

A. My prefiled supplemental testimony noted the heat rate for the Sumas Generating Station was updated to reflect more current operating information. Upon review, PSE discovered this update should not have occurred and has revised the Sumas Generating Station's heat rate to that originally used in this proceeding, which is included in my prefiled direct testimony. This change decreased power costs $0.3 million.

F. Other Power Cost Updates

Q. Please describe the other updates to the rate year power costs.

A. PSE's other updates to power costs include a $0.4 million cost increase for transmission reassignment revenues to reflect the most recent twelve months, in accordance with the calculation set in the 2011 GRC. In addition, the forecast auction revenues included within PSE's Mid-C contract with Grant PUD reflects the lower rate year forecast market prices, increasing power costs by $0.7 million. This change in the Mid-C contract automatically updates whenever rate year market prices are updated for a new AURORA model run. These other power cost updates increased power costs by $1.1 million.

V. REQUEST FOR PRUDENCE DETERMINATION

Q. Is PSE requesting a prudence determination in this proceeding?

A. Yes. PSE has provided evidence in this proceeding, and Commission Staff has agreed, that the following resources met the prudence standard in their acquisitions or renewals. PSE requests the Commission deem the following resource acquisitions and renewals prudent and allow full recovery of the costs requested in this proceeding:

(i) the acquisition of the Ferndale Generating Station and the costs associated with this project;

(ii) the twenty year power purchase agreement with Electron Hydro, LLC for the purchase of all generation from the Electron Project;

(iii) the renovation and upgrades at Snoqualmie Falls Project to implement the Federal Energy Regulatory Commission ("FERC") license;

(iv) the addition of a fourth generator unit and a floating surface collector at the Baker Project to implement the FERC license; and

(v) PSE's acquired and renewed transmission contracts with BPA.

VI. DISPATCHABLE STANDBY GENERATION

Q. What is Commission Staff's recommendation regarding Dispatchable Standby Generation ("DSG") service?

A. Commission Staff witness Ms. Williams proposes in her Exhibit No. ___(JMW-T) page 45 through 47 that by December 1, 2014, PSE provide a report to the Commission to "evaluate the benefits and costs of developing a similar [to

Portland General Electric Company] Dispatchable Standby Generation system in its service territory."

Q. What is your response with respect to Ms. Williams' recommendation to require PSE to consider developing a DSG service?

A. PSE's is supportive of Ms. Williams' suggestion. PSE has rate Schedule 93, which is an energy buy-back service developed during the 2000/2001 energy crisis, but has no similar service targeting capacity. There is currently a team looking into the issues and details of developing a service as described by Ms. Williams, inspired in part by Commission Staff's data requests on the matter during this proceeding. Thus, Ms. Williams' recommendation for a report rather than a tariff filing is well advised. I suggest the Commission consider a slight modification to Ms. Williams' recommendation: that PSE be required to file the recommended report by December 1, 2014, unless PSE has made a tariff filing to implement a DSG service by then. That is, there is no reason for a report if PSE has filed to implement a DSG service before December 1, 2014.

VII. POWER COST ADJUSTMENT MECHANISM

Q. Is this PCORC proceeding the proper forum for proposing changes or modifications to the PCA mechanism?

A. No, the PCORC is a limited purpose filing to update power costs and bring in new generation resources. As such, Public Counsel's proposal falls outside the scope of this proceeding, and PSE has filed a motion to strike the testimony of Public Counsel witness Sebastian Coppola. However, because the Commission will not have ruled on the motion by the time PSE's rebuttal testimony is due, PSE has also filed testimony rebutting Mr. Coppola's testimony on the PCA.

Q. Please provide a brief summary of your response to the testimony of Public Counsel witness Sebastian Coppola and his findings and recommendations regarding the PCA mechanism.

A. The Commission has several times reviewed the PCA mechanism and the PCORC provisions of the PCA over the past several years. In his testimony in this case, Mr. Coppola reprises many of the same arguments against the PCA mechanism that have been made by Public Counsel and others over the past several years—and that have been rejected by the Commission. Additionally, as discussed in more detail later in my testimony, Mr. Coppola demonstrates a fundamental misunderstanding of the PCA mechanism. For example, he argues that the PCA deferral should be designed so that surcharges or refunds occur more frequently, but the Commission has repeatedly stated that the goal of the PCA deferral is to smooth the over- and under-recoveries of power costs and to *avoid* surcharges and refunds. Mr. Coppola also fails to understand how the PCA mechanism has effectively smoothed power cost variability within and between PCA periods since its July 1, 2002 inception. In measuring variability, Mr. Coppola looks only at the end of each given PCA period and ignores the significant variation within these periods.

In PSE's 2011 GRC, the Commission stated that "[a]bsent a showing that these mechanisms are not functioning as intended, are no longer needed, or should be modified to better accomplish their intended results, we will not order a special proceeding to review them at this time."[5] Mr. Coppola's findings and testimony actually demonstrate that the PCA mechanism *is* functioning as intended, *continues* to be needed, and does not require modification to meet its intended purposes. Therefore, the Commission should reject Public Counsel's invitation to modify or eliminate the PCA mechanism.

A. <u>The Commission Has Repeatedly Reviewed the PCA Mechanism and the PCORC Provisions of the PCA and Has Determined that They are Functioning as Intended</u>

Q. Has the Commission reviewed PSE's PCA mechanism recently?

A. Yes. In every general rate or power cost only rate proceeding since 2006, the Commission has repeatedly reviewed aspects of the PCA mechanism, including the PCORC provisions of the PCA. These include the following:

- In Docket UE-060266 ("2006 GRC"), the Commission considered and rejected a proposal to remove the deadbands in the PCA mechanism and to provide equal sharing of costs between PSE and its customers.
- In Docket UE-070565 ("2007 PCORC"), as part of a term of the settlement agreement in that case, the Commission ordered the parties to engage in a collaborative to address the PCORC provisions of the PCA mechanism. The parties met on eight occasions, assisted at times by an independent facilitator.[6]
- In Docket UE-072300, ("2007 GRC") the Commission considered parties' proposed modifications and requests to

[5] *WUTC v. Puget Sound Energy, Inc.*, Dockets UE-111048 and UG-111049, Order 08, ¶ 511, (May 7, 2012).

[6] *WUTC v. Puget Sound Energy*, Dockets UE-072300 & UG-072301, Order No. 13 at ¶ 19 (January 15, 2009).

eliminate the PCORC provisions of the PCA mechanism. The Commission approved some modifications to the PCORC provisions of the PCA mechanism that were supported by Commission Staff and PSE but rejected the request of Public Counsel and ICNU to further modify or eliminate the PCORC. The Commission also ordered PSE to undertake a study of the efficacy of the PCA sharing bands. PSE undertook this study and shared the results with parties as ordered by the Commission. The parties made no comments on the study.

- In Docket UE-090704 ("2009 GRC") the Commission considered and rejected a Public Counsel proposal to trigger a power cost reduction when gas prices drop by 15 percent or more.

- In Docket UE-111048, ("2011 GRC") the Commission considered updated analysis of the PCA mechanism in the Prefiled Direct Testimony of Mr. Salman Aladin, Exhibit No. ___(SA-1CT) and rejected Commission Staff's request for a separate proceeding to address the PCA mechanism.

Q. What guidance has the Commission provided with respect to the deadband, sharing bands[7] and surcharge/refund provisions of the PCA mechanism?

A. In PSE's 2007 GRC, the Commission provided guidance regarding the role of the deadband and the sharing bands. Additionally, the Commission discussed the goal of minimizing the deferral balance by resetting the baseline rate as close as possible to actual power costs in order to avoid surcharges and refunds under the deferral provision of the PCA mechanism:

> Under the PCA, the Company tracks power costs that deviate from the mechanism's Power Cost Rate, which is the Company's baseline power cost determined by the Commission for each 12-

[7] The PCA deadband is the first (+/-) $20 million which is borne by PSE, the next (+/-) $20 million is shared 50/50 between PSE and Customers, the next (+/-) $80 million is shared 10% to PSE and 90% to customers and above (+/-) $120 million is shared 5% to PSE and 95% to customers.

> month PCA period. The mechanism establishes bands around this baseline power cost that determine the sharing of the over- or under-recovery of power costs between customers and the Company within each PCA period. There is a "deadband" within which the first $20 million of under-recovered costs are absorbed by the Company or the first $20 million of over-recovered costs are retained by the Company. This is meant to reflect normal fluctuations in power costs. The PCA's additional bands and sharing structure establish ranges in which PSE either collects from, or refunds to, customers in varying proportions any over- or under-recovery of power costs, if and when the cumulative ending balances of the PCA periods reach $30 million, plus or minus. *This allows the mechanism to address power cost variability over time with the expectation that the over- and under-recoveries will offset each other. The objective is to minimize deferral balances by only capturing power cost variability that is extraordinary. This balancing has occurred, in fact, and the surcharge has never been triggered.*[8]

The Commission also noted the important role of the PCORC in periodically resetting the PCA baseline rate so that power costs are set as close as possible to what is expected to occur:

> In terms of the relationship between the two mechanisms, the PCORC was designed to adjust the normalized production-related power costs used to determine the PCA Power Cost Rate. In turn, the Power Cost Rate is used in the PCA to determine the over-or under-collection of actual power costs during a PCA period. When the Company's portfolio changes, or when costs currently included in the Power Cost Rate change due to contractual agreements or market prices, PSE may file a PCORC to reset the power cost baseline, affecting the measurement of normalized power costs during the future PCA period. *The Commission recently confirmed the importance of resetting the baseline rate from time-to-time to reflect normalized power costs: "The Commission's goal is to set the Power Cost Baseline Rate as close as possible to what is expected to be experienced in the rate year and expect this to continue going forward.*[9]

---

[8] *WUTC v. Puget Sound Energy*, Dockets UE-072300 & UG-072301, Order No. 13 at ¶ 19 (January 15, 2009).

[9] *Id.* ¶ 11 (citations omitted; emphasis added).

Q. Did the Commission provide any additional guidance on the deferral balance?

A. Yes, the Commission further stated;

> We previously determined that the PCORC was never intended to be limited to power cost updates associated with the acquisition of new resources. *The PCORC's update of the power cost baseline under the PCA is an important feature that helps keep deferral balances within reasonable bounds, making the PCA better suited to its purpose, which is to address unexpected and acute volatility in power costs while generally avoiding the trigger of surcharges or bill credits.* This likewise gives us reason to reject Public Counsel's related proposal that PSE be permitted to reset the PCA baseline only in a general rate case. [10]

Q. Please elaborate on the review of the PCA mechanism that took place in PSE's 2011 GRC.

A. In PSE's 2009 GRC, the Commission required the parties to:

> examine in PSE's next general rate case, or in another suitable proceeding, the questions whether there are asymmetrical risks in the distribution of power costs that may affect the sharing of risks and benefits accomplished by the PCA sharing bands. It seems particularly appropriate that the Commission should hear more on this question in the future given the Company's 2007 study concerning the balance between risk and benefits associated with deviations from baseline power costs and how it should properly be considered in the design of the PCA and its sharing bands.[11]

---

[10] *Id.* ¶ 53 (emphasis added).

[11] *WUTC v. Puget Sound Energy, Inc.,* Dockets UE-090704 & UG-090705, Order No. 11, at ¶ 118 (April 2, 2010).

Q. Did PSE provide the Commission the requested information on asymmetrical risks plus their impact on the PCA and its sharing bands in its next general rate case filing?

A. Yes it did. Mr. Salman Aladin, PSE's then Director of Structuring, Asset Optimization and Analytics, provided testimony in the 2011 GRC that described the analysis PSE performed using the Monte Carlo feature of AURORA, the fundamentals-based hourly production cost model used to forecast the rate year power costs and rate year wholesale power prices.

Q. Mr. Coppola presents his analysis of hydro conditions as they relate to PSE on pages 12 through 14 of his testimony. Is his analysis valid?

A. No. PSE's percent of hydro generation is altered by regional hydro conditions, so what may look like a decline in hydro generation percentage for PSE represents a decline in PSE's Mid-C ownership shares, which are being offset by an above normal hydro year. Regional prices are generally down in an above normal hydro year and PSE's costs could be lower as compared to rates, which are set on a normal hydro year.

Q. Has PSE provided the Commission evidence as to how variation in hydro can impact power costs?

A. Yes. In the 2011 GRC, Mr. Aladin provided a chart which is duplicated below. The chart has been updated to include the most recent two PCA periods. Mr. Aladin explained that because PSE's rates are set assuming that water conditions will be "normal" (based on the average of a 50-year or 70-year data set), when hydro conditions inevitably turn out to be higher or lower, it impacts PSE's actual power costs. In general, "dry" years increase power costs such that they are typically under-recovered, while "wet" years decrease power costs such that they are typically over-recovered. As shown in the chart below, the PCA periods with lower than "normal" hydro conditions primarily produced excess power costs. During the 4 ½ year period encompassing PCA periods 4, 5, 6, 10 and 11, higher than "normal" hydro conditions produced power cost savings.

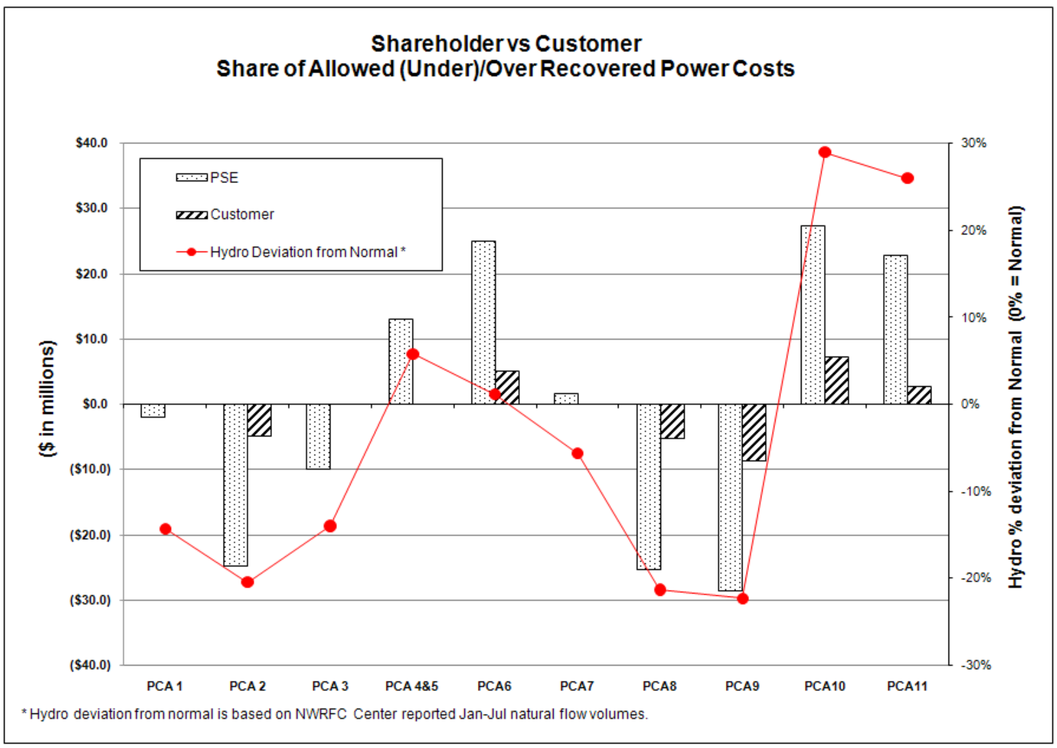

Table 4 below provides a summary of each PCA period's over and under-recoveries and the sharing between PSE and customers.

Table 4
Puget Sound Energy, Inc.
Power Cost Adjustment Mechanism History
($$ in Millions)

Period	PCA Period	Over/ (Under) Recovery	Company Share	Customer Share
7/02-6/03	PCA 1	$ (1.8)	$ (1.8)	$ -
7/03-6/04	PCA 2	$ (29.6)	$ (24.8)	$ (4.8)
7/04-6/05	PCA 3	$ (10.0)	$ (10.0)	$ -
7/05-6/06	PCA 4	$ 12.4	$ 12.4	$ (0.0)
7/06-12/06	PCA 5	$ 0.7	$ 0.7	$ -
2007	PCA 6	$ 30.2	$ 25.1	$ 5.1
2008	PCA 7	$ 1.8	$ 1.8	$ -
2009	PCA 8	$ (30.3)	$ (25.1)	$ (5.1)
2010	PCA 9	$ (36.2)	$ (28.1)	$ (8.1)
2011	PCA 10	$ 34.8	$ 27.4	$ 7.4
2012	PCA 11	$ 25.6	$ 22.8	$ 2.8
Cumulative through 2012		$ (2.3)	$ 0.4	$ (2.6)

Q. **On page 14 of Mr. Coppola's testimony he states that Mr. Aladin testified in the 2011 GRC that hydro is not a major contributor to power cost variability. Is that an accurate assessment of Mr. Aladin's testimony?**

A. No it is not. Mr. Aladin actually testified that removing hydro risk does not "significantly reduce the potential volatility or skewed distribution in the over- or under-recovery of power costs."[12] The chart that Mr. Aladin presented with this testimony showed that the over-recovery and under-recovery of power costs with

[12] Dockets UE-111048 &UG-111049, Prefiled Direct Testimony of Salman Aladin, Exhibit No. ___(SA-1CT), at page 13, lines 3-5.

and without hydro were in a range of positive $[redacted] million (over-recovery) to a negative $[redacted] million (under-recovery), without hedges taken into consideration. He testifies that "much of the skew and volatility is explained by factors other than just hydro, such as changes in load, weather, and fluctuations in natural gas and power market prices"[13].

Q. What were PSE's observations based on this study?

A. Mr. Aladin showed that there was asymmetry in the over- or under-recovery of power costs. As to which way a particular period would be skewed to over or under-recover power costs depends upon underlying variables that change frequently, such as, but not limited to, market prices, market conditions, asset mix, load and hydro.

REDACTED
VERSION

[13] *Id*. at page 13, lines 5-7.

Q. Did PSE provide the Commission any evidence as to how much of the under-recovery or over-recovery of power costs would occur in each of the sharing bands?

A. Yes. Mr. Aladin provided the following chart:

Actual Power Cost Imbalance[14]	**Likelihood**	**Likelihood After Hedging**
Greater than $40,000,000	[redacted]%	[redacted]%
Greater than $20,000,000 to $40,000,000	[redacted]%	[redacted]%
From $0 to $20,000,000	[redacted]%	[redacted]%
From ($20,000,000) to $0	[redacted]%	[redacted]%
Less than ($20,000,000) to ($40,000,000)	[redacted]%	[redacted]%
Less than ($40,000,000)	[redacted]%	[redacted]%

This chart shows that over [redacted] percent of the over and under-recovery of power costs occur within the $20 million dollar deadband after hedging.

Q. What was PSE's recommendation based on this study?

A. As there has been no need to adjust rates due to the over or under-recovery of power costs, PSE concluded the bands as implemented provide a benefit to both the customer and PSE and that they should not be changed. This continues to be PSE's recommendation.

REDACTED VERSION

[14] For purposes of this presentation, a positive number is over-recovery and a negative number is under-recovery.

Q. Did Public Counsel sponsor any witnesses in the 2011 general rate case that addressed Mr. Aladin's testimony?

A. No.

B. <u>Public Counsel's Recommendations Are Not Consistent With the Commission's Past Guidance or the Evidence in this Case</u>

Q. Have you reviewed the findings of Public Counsel's witness, Mr. Coppola, regarding the operation and performance of the PCA mechanism?

A. Yes.

Q. Do any of Public Counsel's findings indicate that the PCORC and PCA mechanism are not functioning as intended?

A. No. In fact they show just the opposite if the full amount of the data provided to Public Counsel is considered.

Q. Would you please explain?

A. Yes. Mr. Coppola presents a schedule in his Exhibit No. ___(SC-3) that he constructed using data PSE provided in response to Public Counsel Data Request No. 002. Exhibit No. ___(DEM-11) is the actual data provided to Public Counsel.

This same type of data has been presented to the Commission in prior dockets and it shows how the over- or under-recovery of power is allocated between PSE and customers. The columns labeled (A) through (K) of this spreadsheet are comparing the monthly actual power cost as determined by the PCA calculation to the amount of power costs included in rates to determine the over-/under-recovery. Non-jurisdictional customers are allocated their share of the over-/under-recovery before calculating the amount of power costs that will be allocated to PSE and customers based on the PCA bands.

Mr. Coppola summarized this data by PCA period to support his analysis. By doing this he has hidden the true change in power costs for any given period. To illustrate this I have included Exhibit No. ___(DEM-12), which is the same as Exhibit No. ___(DEM-11) with the columns (A) through (K) and (R) through (U) removed, so that the numbers are a little a little larger and easier to read. In addition, for illustrative purposes, columns (Q1) and (Q2) have been added to calculate a twelve month cumulative balance and the cumulative customer share, respectively. If you look at column (Q1) for the twelve months ended June 2010 it was $78.5 million. Similarly, the highest twelve month period of over-recovery of power costs was the twelve months ended April 2012 with an over-recovery of $69.5 million.

These are much larger short term fluctuations in power costs than what has occurred by the end of a given PCA period. If these had actually coincided with the end of a PCA period, column (Q2) shows the amount that would have been deferred would have been $44.6 million on the under-recovery and $36.5 million on the over-recovery.

As it was, the PCA mechanism functioned as intended by allowing PSE to defer some of these costs during the under-recovery period and to share with the customers some of the over-recovered amounts. These deferrals were then cleared by other deferrals that went the opposite direction which eliminated the need to surcharge or refund dollars to the customer by the end of the respective PCA period. This is the Commission's stated goal as it explained in paragraphs 11 and 53 of Order No. 13 in PSE's 2007 GRC, which I quoted earlier in my testimony.

Q. Has the Commission previously addressed similar misunderstandings of this data by Public Counsel?

A. Yes. In the 2007 PCORC, the Commission addressed arguments similar to those made by Public Counsel in this case. In so doing, the Commission commented on its review of the type of data that I have provided in Exhibit No. ___(DEM-11) and Exhibit No. ___(DEM-12).

> Public Counsel also argues that PSE has controlled the PCA, in part by its PCORC filings, so that "[t]here is little likelihood that customers will ever get a benefit resulting from PSE over-collections." Public Counsel says there has been a "turnaround" in PSE's collection of power costs so that it has been over-recovering power costs in recent periods. He implies that there is something inappropriate or even manipulative about this, while ignoring that from the inception of the PCA in 2001 through June 2005, PSE under-recovered its actual power costs. Just as the Company now retains over-collected costs of up to $20 million in the so-called PCA deadband, it previously absorbed up to $20 million when it under-collected its costs. *This is exactly the way the PCA was meant to work, accounting for periods of under-recovery of power costs and periods of over recovery. If the mechanism works as designed, the over and under balances, over time, offset each other and the deferrals are kept within reasonable bounds. In fact, this*

> *balancing has occurred, deferred power costs have been kept in reasonable bounds and the surcharge has never been triggered.*[15]

Q. On page 21 of Mr. Coppola's testimony he states that the PCA sharing bands were designed to protect PSE's financial integrity during a period of financial distress. Is this an accurate assessment of the sharing bands?

A. No. Paragraph 9 of Order 13 that is quoted earlier in my testimony explains the purpose of the sharing bands. Again, the data provided in Exhibit No. ___(DEM-11) and Exhibit No. ___(DEM-12) shows that the sharing bands as approved by the Commission are functioning as intended by the Commission.

Later in Order No. 13 the Commission provides a further explanation of the sharing bands:

> Public Counsel and ICNU argue further that regular use of the PCORC mechanism to update the Power Cost Rate "allows PSE to avoid the risk sharing contemplated by the PCA." However, they ignore the fact that the PCA was designed to address extreme, short-term imbalances between power cost recoveries and actual power costs. It is important to remember in this connection that the PCA was developed in the wake of the 2001 Western energy crisis in which conditions in wholesale power markets were extremely volatile. This was also a time when the risks of unusual hydro and weather conditions were significantly affecting power costs. The PCA's design manages the power cost volatility that results from these conditions, which are beyond the Company's ability to control. Ordinary deviations of power costs are expected to fall within the deadband and are absorbed or retained by PSE. The PCA was designed to track more extreme deviations of power costs relative to expected resource costs included in the Power Cost Rate for each 12-month PCA period and establishes rules that govern how costs or benefits are shared if deferral balances grow large enough. The PCORC allows for the Power Cost Rate to be adjusted, when appropriate, in part to avoid the accumulation of

---

[15] *WUTC v. Puget Sound Energy, Inc.*, Dockets UE-072300 & UG-072301, Order No. 13, at ¶ 30 (January 15, 2009) (emphasis added).

> large deferral balances. We find the mechanism works as it was contemplated – it manages risks for both the Company and its customers. We find no evidence that the PCORC inappropriately shifts risk away from the Company.[16]

Again, based on Mr. Aladin's chart of the power cost imbalance that I provided earlier in my testimony, over [redacted]% of the power cost imbalance is contained within the first deadband and the likelihood that over-recovery would occur is [redacted]% less then under-recovery would occur. PSE believes that this more than supports the Commission's objective that the first deadband would contain the ordinary deviations of power costs.

Q. Is Public Counsel's witness's suggestion to use a percentage of total power costs to determine the under-recovery sharing band appropriate?

A. No. He provides no good argument as to why the Commission should change its previous determinations on the sharing bands. To shift the risk of more power cost under-recovery to PSE when it already chronically under-recovers its rate of return is not appropriate. His other recommendations for changing the dollar amount for the over-recovery sharing bands and the trigger amounts for surcharges and refunds also violate the stated objective of the Commission that was again provided in paragraph 9 of Order No. 13 quoted earlier in my testimony.

REDACTED VERSION

[16] *Id.* at ¶ 29 (citations omitted).

Q. On page 17 of Public Counsel's witness's testimony, he reaches the conclusion that power cost variability in future years may be even less than what PSE has experienced in the past 11 years based on his observations. Do you agree?

A. We will not know until the next 11 years have passed. There are many factors that can impact power costs and to state that only the down side of prices will occur is shortsighted. In PSE's planning we use a range of prices to reflect both increases and decreases in power costs so that different scenarios can be evaluated.

Again, referring to Mr. Aladin's testimony in PSE's 2011 general rate case it was determined that the range of under-recovery to over-recovery was in the range of minus $[redacted] million to a positive $[redacted] million with hedges. This is still a large variability.

Q. On page 18 of Public Counsel's witness's testimony he states that PSE is no longer publicly traded, so the underlying financial circumstances have been significantly altered. Is that a reason to change the PCA?

A. No. PSE still has to go to the financial markets to borrow money and the current owners of PSE should not be treated any differently than the past owners.

REDACTED VERSION

Q. Public Counsel's witness suggests that the Commission should adjust PSE's return on equity if the PCA is retained. Is this appropriate?

A. No. The Commission has already determined that the PCA mechanism manages risks for both PSE and its customers. In addition, this mechanism has been in effect for the last eleven years and the Commission has made numerous adjustments to PSE's return on equity based on its understanding and assessment of PSE's risk profile.

Q. Please summarize your recommendation to the Commission as to the PCA.

A. PSE recommends that the Commission find there is no need to order yet another special study of the PCA mechanism nor is there any need to modify the PCA as suggested by Public Counsel. The mechanism is functioning as intended and there is no credible evidence provided that would indicate otherwise.

VIII. PSE WITNESSES FILING REBUTTAL TESTIMONY

Q. Would you please describe briefly the PSE witnesses providing rebuttal testimony in this case and the topics presented by each witness?

A. Yes. The following witnesses also present rebuttal testimony on PSE's behalf:

Ms. Katherine Barnard, Director of Revenue Requirements and Regulatory Compliance for PSE: (i) presents an update to the electric results of operations and revenue requirement and power cost baseline rate and (ii) provides PSE's view of Commission Staff and ICNU's proposed adjustments in this proceeding.

Mr. Paul K. Wetherbee, PSE Director of Hydroelectric and Wind Resources Assets Management for PSE, responds to commission Staff's proposals to adjust production O&M and discuses PSE's FERC relicensing costs.

Mr. L. Edward (Ed) Odom, Director of Thermal Resources for PSE, updates the rate year production O&M costs to reflect continued ownership of the Electron Project and rejects ICNU's proposed adjustment to Colstrip production operation and maintenance expenses.

Mr. Roger Garratt, Director of Financial Planning & Strategic Initiatives for PSE, addresses the recommendation of Commission Staff to reduce the principal balances of the transmission service credits regulatory asset and the accrued carrying charges regulatory asset of the Lower Snake River Wind Project and reaffirms PSE's request for a prudence determination for the Ferndale Generating Station and the Electron PPA.

Mr. William F. Donahue, Manager of Natural Gas Resources for PSE, provides testimony refuting Commission Staff's testimony regarding PSE's Cedar Hills biogas and further explains PSE's purchase of, the environmental attributes of and the benefits of PSE's Cedar Hills biogas.

Mr. William F. Donahue, Manager of Natural Gas Resources for PSE, provides testimony refuting Commission Staff's testimony regarding PSE's Cedar Hills biogas and further explains PSE's purchase of, the environmental attributes of and the benefits of PSE's Cedar Hills biogas.

Mr. Jon A. Piliaris, Manager of Pricing and Cost of Service for PSE, provides testimony responding to the proposal ICNU to deviate from the standard practice for cost allocation in a PCORC and the proposal of Commission Staff to modify the calculation of the production adjustment.

IX. CONCLUSION

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.