EXHIBIT NO. ___(JAH-14T)
DOCKET NO. UG-040640, *et al.* (consolidated)
2004 PSE GENERAL RATE CASE
WITNESS: JAMES A. HEIDELL

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant, v. PUGET SOUND ENERGY, INC., Respondent.	Docket No. UG-040640 Docket No. UE-040641 (*consolidated*)
In the Matter of the Petition of PUGET SOUND ENERGY, INC. For an Order Regarding the Accounting Treatment for Certain Costs of the Company's Power Cost Only Rate Filing.	Docket No. UE-031471 (*consolidated*)
In the Matter of the Petition of PUGET SOUND ENERGY, INC. For an Accounting Order Authorizing Deferral and Recovery of the Investment and Costs Related to the White River Hydroelectric Project.	Docket No. UE-032043 (*consolidated*)

PREFILED REBUTTAL TESTIMONY OF JAMES A. HEIDELL (NONCONFIDENTIAL) ON BEHALF OF PUGET SOUND ENERGY, INC.

NOVEMBER 3, 2004

PUGET SOUND ENERGY, INC.

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PUGET SOUND ENERGY, INC.

PREFILED REBUTTAL TESTIMONY OF JAMES A. HEIDELL

I. INTRODUCTION

Q. Are you the same James A. Heidell who submitted direct testimony in this proceeding on behalf of Puget Sound Energy, Inc. ("PSE") or "the Company")?

A. Yes, I am.

Q. What is the purpose of your rebuttal testimony?

A. I will respond to the testimonies of the other parties with regards to weather normalization adjustments and rate spread and rate design for both electricity and natural gas and identified a number of areas where the Company's case was mischaracterized or incorrectly interpreted. This testimony is intended to clarify the Company's initial position and point out inaccuracies in the pre-filed direct testimonies of other parties. Upon review of the other testimonies the Company has also identified some rate design proposals that are considered acceptable alternatives to the Company's pre-filed proposal.

Q. Please summarize the major changes from your pre-filed testimony.

A. The Company has made the following modifications to its original rate design

proposal:

- **Electric rate Schedule 25:** Increase the demand charges in response to suggestions from Kroger. While the demand charges have been increased, the Company views the increase recommended by Mr. Higgins as too large.

- **Gas rate Schedules 57 and 87:** (a) Inclusion of a procurement charge to Schedule 87 per the recommendation of NWIGU and CMS; (b) inclusion of a differentiated customer charge between Schedules 57 and 87; (c) reduction of the notification provisions for switching between sales service and transportation service; and (d) moderation of the increase to the demand charge.

- **Proposed annual rate adjustment for declining residential volumes:** lowered the annual adjustment as a result of removing the impacts of adding new customers with lower use per customer than existing customers.

II. LOST MARGINS FROM DECLINING USE PER CUSTOMER

Q. Has the Company reviewed the testimonies of Commission Staff, Public Counsel, and NWEC on the subject of the Company's need for a mechanism to address lost margins?

A. Yes. Generally, the Company is disappointed in these parties' unwillingness to address the lost margin issue and in their inaccurate characterization of the issue and supporting analysis. PSE has been actively and cooperatively engaged in promoting conservation as a component of its least cost planning process. The forecasted contribution of DSM programs, the Company's load forecasting methodology, and declining usage per customer is documented in the Company's least cost plan that these parties participated in. (See Chapter VI – *Load Forecasting*, April 2003 Least Cost Plan.)

Q. Have you reviewed Mr. Lazar's assertion that declining usage is "essentially all" attributable to new customers?[1]

A. Yes, and I do not agree. Mr. Lazar has presented a number of arguments that are not supported by facts. He attributes the decline in use per customer to new building codes and changes in housing mix. While these may be contributing factors, they do not explain the majority of the forecasted decline in usage. Mr. Lazar tries to prove his point with "a simple numerical example." However, his numerical example is a gross distortion of what the problem. He tries to prove his point with the assumption that PSE has an average annual growth rate of customers of approximately 16% even though the forecasted average annual residential growth rate is 1.7%. His assumptions also over-state the decline in energy usage. In Exhibit No. ___(JAH-15), I solve for what the use per customer of new customers would have to be, given the Company's forecast. The results

are presented in the table below using the same format presented by Mr. Lazar (see column e). Mr. Lazar's conclusion that the entire decline in use per customer is associated with new customers would mean that a new customer would have the average usage shown in column (e). In reviewing column (e) of this table, it helps to keep in mind that actual average consumption of a new customer on PSE's system is approximately 9,000 kWh/year.

(a)	(b)	(c)	(d)	(e)	(f)
Year	**Residential Customers**	**Average Usage (kWh)**	**Total Usage (MWH)**	**Imputed Usage/ New Customer (kWh)**	**Formula**
2004	876,589	11,323	9,925,727	Base Year	
2005	890,743	11,155	9,936,606	769	$=1000*((d)_{2005} - (d)_{2004})/((b)_{2005}-(b)_{2004})$
2006	905,662	10,990	9,953,455	1,129	$=1000*((d)_{2006} - (d)_{2005})/((b)_{2006}-(b)_{2005})$
2007	920,650	10,797	9,940,471	(866)	
2008	936,136	10,537	9,863,729	(4,956)	
2009	952,475	10,377	9,883,565	1,214	
2010	969,627	10,273	9,960,812	4,504	

The imputed use per new customer shown in column (e) of the preceding table illustrates that the forecasted decline in use per customer cannot entirely be characterized as a function of new customers as alleged by Public Counsel.

On a final note, the EIA survey that Mr. Lazar relies on to identify relationships between income and consumption indicate that new homes are using more electricity than older homes, as shown in the highlighted section of page 2 of Exhibit No. ___(JAH-18).

Q. Have you reviewed Mr. Lazar's argument that declining usage per customer is a positive attribute and not a cost?

[1] Exhibit No. ___JL-1T, p 12 line 11.

A. Yes, however the argument is a *non sequitur* with regards to the Company's concern that declining usage creates a condition where the Company cannot recover its fixed cost of distribution. Mr. Lazar argues that if customers did not reduce consumption, then rates would be higher due to marginal costs of power exceeding average power costs. Regardless of the validity of that logic, the Company is not advocating that reduction in usage on a per customer basis is bad for customers or the region, nor is the Company comparing the requested rates to what rates would have been requested in an alternative scenario. The Company's concern is simply that consumption is dropping while fixed costs of the distribution system are not.[2] This results in under recovery of the revenues necessary to cover the Company's revenue requirements under rates that rely primarily on volumetric charges to recover PSE's revenue requirements.

Q. What analysis has the Company done to verify the forecast of declining usage?

A: The basis of the forecast is the Company's load forecasting model. The model and the inputs are in the Least Cost Plan and the relevant sections are provided in Exhibit No. ___(JAH-16).

Q. What is your response to Ms. Steward's concern about basing rate increases on a forecast of consumption?

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[2] Fixed cost is used in the context that most of the costs of the distribution system do not change with small increments or decrements of load. The ratebase of the existing distribution system does change between rate cases as a result of depreciation and replacements.

A. Ms. Steward suggests that an attrition filing supported by verifiable data would be a better approach than the Company's proposal that uses a forecast of consumption. The Company's concern is that an attrition filing could become unnecessarily complex, if it is even available to the Company.[3]

Q. What is your response to Mr. Lazar's arguments that the declining use per customer is exclusively due to adding new homes?

A. I do not agree. Mr. Lazar used baseline data from the 1983 Northwest Conservation and Electric Power Plan, while my Exhibit No. ___(JAH-7) analyzes projected declining usage as well as historical declining usage post-1993. He then states in response to PSE Data Request No. 12 to Public Counsel that "Mr. Lazar believes that growth in residential end-uses (such as computers) has offset much of the efficiency improvement in existing homes."[4] If this were the case, the use per customer would not be declining as shown in the service territory-specific analysis the Company has developed. See Exhibit ___(JAH-17).

Q. Has the Company done any additional analysis on the causes of decrease in use per customer as a result of Mr. Lazar's comments?

A. Yes, the Company has completed additional analysis to look at the impacts of new customers on declining usage per customer. This analysis was undertaken based

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[3] It appears that this Commission has only allowed attrition adjustments as an extraordinary measure not generally included in general rate relief. See Docket No. UG-920840, Fourth Supplemental Order at pp 29 – 30.

[4] See Exhibit No. ___(JAH-27) at 1.

upon comments provided and data requests made by Public Counsel. The Company examined the average energy use of new residential service locations added after 1999 and compared that with the average energy use of all existing customers as of the end of 1999.

Q. Does the additional analysis completed by the Company validate Mr. Lazar's contention that the declining use per customer is virtually all attributed to new customers?

A. No. The results of this analysis show that only 0.4% of the forecasted annual 1.5% decline in use per residential electric customer is attributed to new customer additions and 0.28% of the forecasted 0.6% decline in use per residential natural gas customer is attributed to new customer additions. A summary of the results is provided in Exhibit No. ___(JAH-17).

Q. Has the Company analyzed the causes for the difference in average energy use of new customers (customers added after 1999) versus older customers?

A. The Company has done some preliminary analysis and the data suggests that it is primarily the result of the changing mix of customers: more multi-family customers and non-electric heat customers. However, the analysis is preliminary in part due to concern about the quality of the information used to distinguish single family from multi-family housing and electric heat from non-electric heat customers.

Q. As a result of the additional analysis on energy usage per customer, has the

Company revised its proposed annual adjustments to residential natural gas and electric rates?

A. Yes. Based upon the comments of Mr. Lazar and the Company's additional analysis, the Company has lowered the proposed annual adjustments. The revised adjustment, shown in Exhibit No. ___(JAH-21), reflects the impact of adding new customers. The revised annual rate adjustment proposal is shown in the following table.

(a)	(b)	(c)	(d)	(e)
Proposed Recovery Rate	**Pre-Filed Electric ($ / kWH)**	**Revised Electric ($ / kWH)**	**Pre-Filed Gas ($ / therm)**	**Revised Gas ($ / therm)**
Year 1	0.000473	0.000345	0.001262	0.000671
Year 2	0.000967	0.000702	0.002546	0.001348
Year 3	0.001483	0.001070	0.003854	0.002032

III. LINE EXTENSION POLICIES

Q. Have you reviewed Public Counsel and NWEC assertions that lost revenues from declining usage per customer should be addressed with line extension policies?

A. Yes. I agree that the line extension policy should be monitored and updated as necessary to recover associated costs. However, I do not agree with their conclusion that the line extension policy modifications are a sufficient solution.

The Company's electric line extension policy and charges were reviewed and

settled upon in the last general rate case in Docket No. UE-011570. The Company then spent a year and a half collaborating with interested parties in order to update the gas line extension policy and pricing for gas facilities extensions. There is currently a process in place to review line extension costs on an annual basis and compare the average costs of line extensions with the margins that will be generated from the new customer. The incremental margins are the basis for determining the allowance provided to new customers. The last review was done in November 2003 and the next review is underway.

The analysis of whether the residential line extension policy is adequate to reduce or eliminate upward pressure on general rates not only needs to consider line extension costs, but also to monitor any differences between the assumed tariff volume of future sales and updated forecast of future sales. The tariff assumption for the average annual consumption for single family residential electric line extensions is based upon a single-family customer with natural gas heating (8,790 kWh per year). New gas-heat customers averaged 8,825 kWh per year. Therefore, my preliminary conclusion is that the assumed value for electric line extensions is reasonable. Finally, it should be recognized that the line extension calculation is based upon the net present value of anticipated margin. Therefore, customer growth will create a drag on earnings since the initial addition to ratebase is greater than the levelized cost of the addition.

Q. Even if line extension charges are fully up to date with respect to associated costs, does that address the financial issues associated with declining use per customer?

A. No. There appears to be confusion regarding whether customer charges and line extension charges are interchangeable or duplicative. It is important to understand that both the electric and natural gas residential line extension policies include calculations to identify the margin that will be recovered from an incremental customer through general rates. An up-front payment is only required from a customer if the standard line extension costs applied to the customer are in excess of the net present value of the anticipated margin derived from general rates. The line extension policies assume that some fraction (or all) of the line extension costs are recovered in general rates and this is the basis for the "allowance" element of the line extension policy. However, the line extension policy is silent on how those costs should be recovered in general rates. The Company's proposal involves converting part of the portion currently recovered in general rates from volumetric charges into cost recovery using fixed charges. It is critical to note that the proposal to shift cost recovery from volumetric charges to fixed charges does not constitute a double recovery of costs or change the amount of costs assumed to be recovered in general rates.

IV. LOW-INCOME ISSUES

Q. Did the Company consider the impact of its rate design on low-income customers?

A. Yes, the Company was concerned about the assumption that low-income customers are low users of electricity. The Company did an analysis of the

average energy use of customers requesting energy assistance versus the rest of PSE's residential customers. The analysis indicates that in the case of electricity consumption, that assumed relationship does not appear to be accurate. The U.S. DOE survey results provided by Public Counsel are based on national data, not the consumption patterns of low income customers in PSE's service territory. There may be regional issues such as climate and air conditioning that skew the results.[5]

Q. Are the Company's proposals anti-conservation as alleged by Public Counsel and NWEC?

A. No. The Company is not proposing any changes to its conservation programs or program targets. Under the Company's proposal, electric rates for all residential customers will increase so the incentive to conserve will increase. The Company's residential gas rates are designed so that the customers pay the marginal cost of gas. As gas costs are increasing, the incentive to conserve should become greater.

Q. Have you reviewed Mr. Lazar's testimony on the impact of the proposed electric rate design on low-income customers?

A. Yes and the Company disagrees with his analysis. The Company agrees with Mr.

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[5] It is interesting to note that Mr. Lazar uses the EIA data for consumption by income level but does not use the same data source for energy usage by vintage of household that shows the energy use per household actually goes up with new vintage of houses in contrast to the theory he presents that energy use declines. These data are shown in Exhibit No. __(JAH-16). (Table CE1-2C from ***A Look at Residential Energy Consumption in 1997***).

Lazar's recommendations that "Puget's residential conservation programs be preserved."[6] There is nothing in the Company's proposal that diminishes PSE's commitment to conservation in low-income households or to Schedule 129, the Low Income Program. In fact, the Commission should take into consideration the Company's commitment to these programs as it attempts to balance multiple rate design objectives including meeting low income customer needs, allocating fixed cost recovery in a manner that stabilizes Company revenues while ensuring that customers pay an equitable share of the equipment dedicated to serve them.

Q. Why does the Company disagree with Mr. Lazar's analysis of the impact of the rate design on low-income customers?

A. The Company compared its proposed rate design with the alternative of leaving the basic charge unchanged and applying an equal percentage increase to the existing two-block structure. The cross-over point where the Company's proposal results in lower monthly bills than the equal percentage increase rate design is 771 kWh / month. The Company analyzed energy use by its low-income customers and determined that over 67% of the bills were for over 771 kWh / month. (Low-income customers were identified by customers who have received pledges to assist with their electric bills as the Company does not keep records on the income levels of its customers.) Based upon this analysis, the Company's proposal provides more savings to the low income group than an equal percentage increase.

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[6] Exhibit No. ___(JL-1T) page 49 lines 1 – 2.

V. WEATHER NORMALIZATION

Q. Please summarize recent activities related to analyzing methods for weather normalization of Company loads?

A. Weather normalization relates to determining what the proforma loads should be to reflect normal outdoor temperatures during the rate period under analysis. Proforma adjustments to revenues, and in some cases costs, are typically an outcome of the determination of proforma loads. In PSE's Power Cost Only Rate Case, Docket No. UE-031725, Commission Staff and the Company had differing opinions on a how to perform the weather normalization process. In a February 10, 2004 stipulation between PSE and Commission Staff, the two parties agreed to try to resolve differences over calculations and statistical methods in an informal collaborative setting versus an adjudicated setting. This stipulation was approved by the Commission in Order No. 10 in Docket No. UE-031725.

Q. What is the status of the informal weather normalization collaborative?

A. The Company has been working with Commission Staff and other interested parties to jointly develop electricity and natural gas weather normalization procedures. To date, two collaborative meetings have occurred and we have made meaningful progress with regards to dialog about the methodology currently being used by the Company and improvements that can be made. These improvements include: 1) selection of the time period to use to determine what is normal weather, 2) the dataset(s) and location(s) to be used for the weather data, and 3) the type and time period of customer energy use data to use to establish

statistical relationships between load and temperature. The Company has worked with Commission Staff to develop a work plan and data requirements associated with evaluating the proposed improvements. Additional collaborative meetings are anticipated, including one scheduled for November 2004.

Q. What are Dr. Mariam's proposed modifications to the electric weather normalization procedures for future electric rate cases?

A. In Exhibit T-___(YKGM-1T) at 36-40, Dr. Mariam outlines proposed modifications including limiting the weather data to thirty years ending in the year 2000. He characterizes the Company's methodology as simulating customer energy usage over a thirty year period when in fact, the Company's methodology is to simulate test year usage based upon thirty years of weather data. This misunderstanding is an excellent example of how continuing the collaborative process will be beneficial to all parties in that it provides an opportunity to discuss existing and alternative methodologies. Application of Dr. Mariam's proposed modifications in this proceeding would be premature and circumvent the collaborative process. Furthermore, since Commission Staff is not proposing any adjustments to the Company's electric weather normalization in this proceeding, it is not necessary to resolve the outstanding electric normalization methodology issues in this case in order to address electric revenue requirements and rate spread.

The Company would prefer that the Commission not prejudge what the preferred approach for weather normalization is until pending analysis is completed and

further collaborative meetings are held. While keeping an open mind to the ultimate outcome, the Company remains concerned about using weather data that ends in 2000 when the energy usage data to be normalized are all after the year 2000 and the statistical equations developed to relate energy use to temperature are all after the year 2000. In addition, the Company does not currently have a theoretical objection to using ten years of consumption data to develop the statistical relationships between energy use and temperature. However, the practical concern is that there are not ten years worth of data. The data source starts with data in 2001. Given that Commission Staff argues that up to ten years of data are preferred, the Commission Staff's proposal to exclude data subsequent to the end of the test year for the purpose of developing a statistical relationship between energy use and outdoor temperature needs further discussion.

As previously noted, there also still appears to be some confusion with regards to what consumption data are being normalized. The Company believes that the collaborative is the best forum to resolve these issues and we remain confident that a mutually agreeable approach can be developed.

Q. What is Commission Staff's proposed adjustment to the test year natural gas sales for this rate case (Exhibit T-___ (YKGM-1T) at 41?

A. Commission Staff proposes to replace the Company's calculation of normal weather using a twenty year rolling average (less the high and low years) with thirty years of NOAA data. At this point the Company does not believe the adjustment is appropriate, and recommends that changes to the Commission

approved methodology wait until the weather normalization collaborative work has been completed. Again, the Company is receptive to alternative approaches, but absent the results of further investigation, it is the Company's position that the weather data used to develop the statistical relationships between outdoor temperature and natural gas consumption is sufficiently accurate to develop the equations and to incorporate into the definition of normal. There is a disagreement between PSE and Commission Staff as to whether post-2000 data has a bias. In addition, the Company does not believe post-2000 data can be excluded because it is needed to analyze the relationship between usage and temperature post-2000.

Q. Going forward, does the Company agree with Dr. Mariam's proposed methodology adjustments for future natural gas rate cases (Exhibit T-___ (YKGM-1T) pp 42 – 44)?

A. Dr. Mariam's proposal includes the following changes: 1) use of at least ten years of natural gas usage data, 2) separate weather adjustment for different parts of PSE's service territory, 3) general recommendations regarding sampling and statistical methods, 4) inclusion of non-weather variables in the statistical estimations of weather impacts on consumption, and 5) use of three ten-year datasets of NOAA weather normals.

The Company is receptive to using up to ten years of consumption data to formulate statistical relationships between natural gas consumption and outdoor

temperature. However, at this point only limited data are available.[7] In the future, it is possible that the parties might conclude that ten years of consumption data is too long if there are structural changes in the market.

The Company is also receptive to examining whether developing separate weather adjustment equations for different geographic regions within PSE's service territory provides both a statistically significant increase in accuracy and whether the improvement, if any, warrants the extra cost and added complexity.

As previously noted, the Company is receptive to alternative approaches and recommends that these technical issues be left to the weather normalization collaborative in the expectation that a cost-effective and statistically robust solution can be mutually developed.

VI. ELECTRIC RATE SPREAD

Q. Has the Company reviewed the rate spread proposals of other parties?

A. Yes. I have prepared Exhibit No. ___(JAH-19) to compare the various rate spread proposals at the Company's proposed revenue requirement and cost of service methodology. It should be recognized that the rate spread proposals presented by others may be dependent on the assumption of the total revenue requirement. Therefore, the table and following descriptive text is offered as the

[7] There are three years or less data, depending on what standards the collaborative decides are appropriate for creating validated and standardized data.

Company's interpretation of the other parties proposals.

A. Commission Staff

Ms. Steward agrees with the Company's proposal to have minimum increases at 50% of the average increase and maximum increases at 150% of the average increase. However, she further differentiates that spread of the increase within the 50 – 150% band.

B. ICNU

Mr. Schoenbeck has proposed that classes significantly above parity receive less than 50% of the average rate increase. In the case of the current cost of service, the Schedule 26 class would get less than 50% of the average increase. Given that these classes are relatively small, the additional spread of the increase to other customer classes would be less than 0.2% if Mr. Schoenbeck's proposal were adopted.

C. Public Counsel

Mr. Lazar is proposing an equal percentage increase since, based upon his cost of service analysis, "all the major classes fall within a 90% to 110% range" (Exhibit No.___(JL-1T) at 25), and reflects his arguments for unbundled costs of capital in his rate adjustment analysis.

Q. Do you have any concerns with these parties' testimonies regarding rate spread?

A. Yes, I have a few concerns. First, the table prepared by Ms. Steward on page 18 of her testimony indicates that the Company's rate spread proposal at the Commission Staff's proposed revenue requirement would produce a rate decrease for Schedule 26. This misrepresents the Company's methodology, which has the class receiving 50% of the average increase.

The Company does not support Mr. Lazar's proposal. Customer classes outside of the 90 – 110% band should directionally be moved closer to parity. The fact that they are smaller classes makes it easier to do so without significantly impacting the other customer classes.

The Company does not see any significant issues with the rate spread proposals of ICNU and Commission Staff.

Q. Did the Company incorporate Mr. Lazar's unbundled cost of capital recommendations in its rate spread proposal?

A. No. As stated in Dr. Cicchetti's rebuttal testimony, there is not a reasonable basis for Mr. Lazar's analysis of unbundled capital costs, so it is inappropriate to include it in the rate spread proposal.

Q. Has the Company prepared a revised rate spread proposal as a result of the revenue requirement changes presented by Ms. Luscier and the cost of service study presented by Ms. Paulson in their rebuttal testimonies?

A. Yes. The study is presented in Exhibit No. ___(JAH-20). The proposed rate increase percentages under the Company's original and revised proposals is presented in the following table.

(a)	(b)	(c)	(d)	(e)
	Parity Ratios		**Proposed Rate Increase**	
Customer Class	**Direct**	**Rebuttal**	**Direct**	**Rebuttal**
Residential	99%	95%	7.35%	9.46%
General Service, < 51 kW	104%	103%	3.8%	4.76%
General Service, 51 - 350 kW	108%	116%	2.9%	3.66%
General Service, >350 kW	96%	109%	2.0%	2.29%
Primary Service	96%	102%	5.7%	7.31%
All Electric Schools	87%	94%	8.6%	10.97%
High Voltage – Retail Wheel	120%	140%	2.9%	3.66%
High Voltage	90%	92%	8.6%	10.97%
Lighting Service	86%	95%	8.6%	10.97%
Firm Resale	90%	100%	8.6%	7.42%
System Total / Average	100%	100%	5.7%	7.31%

VII. ELECTRIC RATE DESIGN FOR RESIDENTIAL CUSTOMERS

Q. What is your response to the criticisms of the Company's residential rate design?

A. Public Counsel, Commission Staff, and NWEC presented a range of concerns regarding the Company's proposal including: creating improper marginal price signals, creating a rate block to allocate low cost power, including part of the transformer cost in the basic charge, and concerns about rate impacts for low income customers. The Company is disappointed that none of the parties except for NWEC propose any potentially workable solutions to address the Company's concern about revenue stability. The reality is that rate design needs to reflect a variety of issues and it is disappointing that the parties appear to base their opposition on old arguments and theoretical constructs while ignoring a current, practical issue that has real implications with respect to the Company's ability to collect revenues sufficient to cover its costs.

A. Low Cost Power Issue

Q. What is your response to Public Counsel and Commission Staff's proposal to leave the first block at 600 kWH based upon allocation of PSE's low cost resources?

A. While I agree with Mr. Lazar that the Commission set the size of the first block in the 1992 Rate Design Case in part based on an allocation of low cost resources, I

have always understood that "low-cost" power referred to power from the major hydro-electric projects.[8] At the time, the residential allocation of low-cost hydro power was approximately 433kWH/month. However, the residential allocation of low-cost hydro power is now approximately 302 kWH / month due to reduced hydro availability and growing load. The reason the decline in the residential is only 30% is due to the reallocation of hydro from the retail wheeling customers.

Both Ms. Steward and Mr. Lazar now say that low cost power includes Colstrip, which the Company calculates costs $0.04 / kWH. (In addition, the customer needs to pay for the cost of the transmission and distribution system needed to deliver the power.) While there is nothing wrong with changing the definition of "low-cost" as the relative mix of power costs in PSE's portfolio change, I believe that the arguments are obfuscations of two critical rate design issues. The first issue is "What is the quantification of the marginal cost price and which customers should see that price signal?" The second related issue is: "Should some customers be shielded from that signal due to an entitlement to low cost resources and how should that entitlement be allocated?"

[8] Docket Nos. UE-920433, UE-920499, and UE-921262, Eleventh Supplemental Order, page 97.

B. Marginal Cost Price Signals and Incentive to Conserve

Q. Does the Company's proposal to reduce the inversion of the two-block residential rate design blunt the marginal price signal?

A. On a practical level, it depends on how customers respond to the change in their total bill versus the incremental kilowatt hour billed. This distinction is important since customers who react to their total bill could be indifferent to a whole range of blocking regimes as long as the total bill remains the same. Furthermore, the signal is dampened by the 11% of residential electric customers who are on budget billing.

The Company's proposal is to raise the first block of the two-block rate from 600 to 800 kWh and lower the price differential between the first and second blocks. Under the Company's proposal, the electric space heat customer will still have a price increase so the price incentive to conserve will be greater than it is today. In addition, under the Company's proposed rate design, all of the residential customers will be receiving rate increases.

The Company has estimated the impact of its proposed rate design on consumption versus the impact on consumption that might result from another type of rate design. For this analysis, we used an equal percentage increase as a proxy for the various rate design proposals advanced by other parties in this proceeding. Assuming that customers have a demand elasticity of –0.18 (the long-term elasticity assumed in the corporate forecasting model), the Company's proposed rate design and the equal percentage increase will lead to comparable

reductions in electricity use. The following table compares the incremental reduction in annual energy use based upon the Company's proposed rate design (column f) and an alternative of equal percentage increase (column g).

(a)	(b)	(c)	(d)	(e)	(f)	(g)
		Average Monthly Bill			Change in Annual Customer Use	
Average Monthly Consumption	Current Rates	Proposed Rate Design	Equal % Increase	Demand Elasticity	Proposed Rate Design	Equal % Increase
600	41.99	47.70	45.12	-0.18	(176)	(97)
900	65.16	69.50	70.24	-0.18	(130)	(152)
1100	80.60	85.65	86.99	-0.18	(149)	(188)

Q. Is the Company concerned that the proposed residential rate design will reduce participation in the Company's conservation programs?

A. No, there is no evidence to support NWEC's contention that participation will decrease. The difference between the Company's proposed rate design and an equal percentage increase to the blocks is approximately $0.89 per month on the total bill of an average customer. The Company does not believe that this difference will on a practical level change customers' willingness to participate in conservation programs.

Q. Is the Company concerned about the impact of the proposed rate design on low-income customers?

A. Yes, the Company is concerned about the impact of all rate increases on low-income customers. However, as previously discussed, low-income customers are not necessarily low energy users, and the Company's proposal does not

disproportionately impact low income customers.

C. Inclusion of Part of Transformer Costs in the Basic Charge

Q. What is your response to criticisms that the transformer costs should not be included in the basic charge?

A. First, it is important to clarify the arguments with regards to the Company's proposals regarding transformers. The first issue has to do with cost of service and cost allocation. To reiterate the point made by Ms. Paulson, transformers were allocated to the rate class based upon direct allocation. The issue about whether transformers are shared by multiple residential customers does not bear on the decision of whether the cost can be directly allocated to the residential class. Direct assignment of costs to a rate class does not require and should not require that the costs be directly assignable to an individual within the rate class.

Both Public Counsel and Commission Staff object to inclusion of the transformer in the basic charge. One of Public Counsel's arguments is that it is not appropriate to include the transformer since the majority of transformers are not dedicated to a single customer. A second argument of Mr. Lazar is that the Company's proposal is based upon a minimum system argument. (Exhibit No. ___(JL-1T) at 34-35.)

However, there should not have to be a one-to-one mapping between the equipment and a specific customer in order for a cost to be in the basic charge. For example, billing costs is a joint cost that is currently allocated to customers in

the basic charge. In addition other rate classes recover transformer costs on a demand basis. Given the cost of demand meter reading and the homogenity of this class a fixed charge to recover transformers is a reasonable proxy for a demand charge. This fixed charge can be recovered as a separate charge or combined with the basic charge.

VIII. NON-RESIDENTIAL ELECTRIC RATE DESIGN

Q. Have you evaluated Kroger's proposals to increase demand charges for Schedule 25?

A. Mr. Higgins argues that the Company's methodology leaves demand charges at parity but increases energy charges above parity for Schedule 25. His proposal is to increase the winter and summer demand charges by 38%. Mr. Higgins methodology involves leaving the Company's proposal for the first block of energy unchanged. The first block energy charges also include the demand costs for the first 50 kW of metered demand. Mr. Higgins sets the second block energy at parity and then solves for the demand charge based upon the class revenue requirement. Mr. Higgins' proposal sets the tail block demand to energy ratios at 49%. This ratio is close to the target ratio of 48% calculated in the Company's revised cost of service study. (The demand to energy ratio is calculated by dividing the targeted demand revenues by the targeted energy revenues.)

The Company proposes to modify its original proposal to increase the movement towards demand cost parity. The Company's modified proposal for Schedule 25

is to increase the first block energy rate by the average increase, with no increase on the second block energy rate, and apply the remainder of the increase to the tail block demand rate. This results in a 1.1% increase to the energy rate and puts the tail block demand to energy ratio at 32% or 5% below the cost-of-service target.

Q. Have you modeled the rate impacts of the Company's proposal for Schedule 25?

A. Yes. In Exhibit No. ___(JAH-22), I show the customer impacts of the Company and Kroger proposals.

Q. Have you evaluated Commission Staff and Kroger's proposals to increase demand charges for Schedule 26?

A. Both Mr. Higgins and Ms. Steward propose larger increases to the demand charges than put forth by the Company. They present different arguments but are in agreement that the demand rate should be higher. The Company believes that Ms. Steward's proposal to assign a higher proportion of the increase to demand charges is appropriate.

Q. Do you agree with Mr. Higgins argument that Schedule 31 should be opened up to all customers?

A. No. Mr. Higgins' solution does not address the ongoing issue of revenue attrition associated with customers switching to a schedule that provides lower rates as an artifact of historical rate spread and design decisions. Mr. Higgins argues against creating two classes of primary service and therefore concludes that Schedule 31

should be opened up to all customers and the difference between Schedules 31 and 26 should be eliminated over time. The Company agrees that the non cost-based differences between the schedules should be eliminated over time, and the Company's rate spread proposal reduces the difference. The Company's long-term solution is in fact to create one class of service where customers are offered Schedule 26 with a cost based discount for customers who provide their own primary voltage transformation. The Company's original proposal included plans to close Schedule 31 to new customers at a later date. One approach to address Mr. Higgins' concern about creating two classes of primary service is for interested parties to work together and agree on a date-certain for closing Schedule 31 to new customers.

Q. Have you reviewed Mr. Schoenbeck's proposed alternative rate design for Schedules 46 and 49?

A. Yes, and the Company does not completely agree with his approach. Mr. Schoenbeck correctly points out that the Company did not do a study to reevaluate the value of its option to interrupt Schedule 46 customers. Lacking an updated study I do not think it is appropriate to depart from the current practice for Schedule 46 and 49 rate design that prices energy the same for both schedules and credits the value of interruption to the demand charge on Schedule 46. Given that a new study has not been performed on the value of interruptability, the Company agrees with Mr. Schoenbeck that equal percentage increases to the rate components is acceptable, with the provision that the energy rates are the same for both schedules.

Q. Has the Company developed new rates as a result of the proposed changes in revenue requirement, cost of service and rate design?

A. Yes. The revised rates are shown in Exhibit No. ___(JAH-23).

IX. NEW RATE SCHEDULES

Q. What is involved in creating a new tariff schedule to serve a new rate class?

A. When new rate classes are created, the impact on cost-of-service and rate spread has to be taken into consideration. Any shortfall in revenues needs to be recovered from other rate classes and the customer impacts associated with recovering any shortfall assigned to other rate classes needs to be evaluated.

Q. Is the Company sponsoring any new rate schedules beyond the rate changes in its direct filing?

A. No.

X. NATURAL GAS RATE SPREAD

Q. Have you reviewed the rate spread proposals prepared by Public Counsel, Commission Staff, NWIGU, CMS, and Seattle Steam?

A. Yes.

- Public Counsel recommends uniform increases to all rate classes

with the exception of the rental class as well as the inclusion of an unbundled cost of capital.

- Commission Staff uses the Company approach of the dead-band but makes some adjustments within the band to move some classes closer to parity and proposes no increase for water heater rentals.

- NWIGU proposes to have the upper cap of 150% of the average increase but not require any minimum increase.

- CMS seeks to reduce the notice provisions for switching between Schedules 57 and 87 and wants to ensure that "cross-subsidies" do not make transportation service a non-competitive option compared to purchasing gas from the Company.

- Seattle Steam advocates reducing the current Schedule 57 rate to move that rate class closer to cost-of-service parity.

Q. Should Schedules 57 and 87 receive different rate increases?

A. As discussed below, the Company is receptive to creating cost-based charges associated with natural gas cost procurement for Schedule 87 and transportation coordination on Schedule 57. However, both schedules are receiving comparable transportation service so that the rate increases must be comparable in order for the rates to stay the same for what is essentially the same service. As discussed later, adjustments for natural gas cost acquisition and transportation nomination are considered appropriate.

Q. Did the Company incorporate Mr. Lazar's unbundled cost of capital recommendations in its rate spread proposal?

A. No. As previously noted, there is not a reasonable basis for Mr. Lazar's analysis of unbundled capital costs hence it is inappropriate to include it in the rate spread proposal.

Q. Has the Company prepared a revised natural gas rate spread proposal reflecting the adjustments described in the rebuttal testimonies of Ms. Luscier and Ms. Paulson?

A. Yes. The revised rate spread proposal is shown in Exhibit No. ___ (JAH-24).

XI. RESIDENTIAL NATURAL GAS RATE DESIGN

Q. Have you reviewed the criticism of the Company's facility charge for residential natural gas customers?

A. Yes. Ms. Steward objects to the facilities charge on the basis that it sends an inappropriate price signal and states: "It has been the Commission's policy over the years to recover fixed charges through volumetric rates, in order to send customers conservation price signals."[9] Ms. Steward also objects on the basis of customer impacts and the confusion of having two fixed charges. Mr. Lazar objects for a number of reasons including its impact on small natural gas users.

[9] Exhibit No. ___(JRS-1T) p 38 lines 2 – 6.

He believes that it constitutes "double charging," is "anti-competitive" and will decrease natural gas conservation efforts.[10]

Q. Has the Company changed its proposal as a result of reviewing these criticisms?

A. No. I agree that the Commission has historically recovered the fixed gas distribution system costs on a volumetric basis. However, I think it is appropriate for the Commission to reconsider this policy in consideration of the benefits of increasing revenue stability and equitably recovering the fixed distribution system costs.

Q. Is it necessary to recover all the fixed distribution system costs through volumetric rates to send customers a conservation signal?

A. No, I don't think that is necessary. Neither Commission Staff nor Public Counsel represent that customers are paying the full marginal cost of natural gas. Thus, customers have a marginal cost price signal regardless of whether a fraction of fixed delivery costs are recovered on a non-volumetric basis. Under the Company's proposal, residential customers are paying the full incremental commodity cost of each therm of natural gas they consume.

Q. Is it your belief that customers will find two fixed charges on the bill confusing?

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[10] Exhibit No. ___(JL-1T)

A. The Company has not done any focus groups to gauge customer reaction. However, the customers are already used to seeing multiple items on the bill including multiple line-items associated with volumetric charges. Alternatively, the concern can be addressed by combining the two fixed charges into a single line item on the bill.

Q. Does a higher fixed charge double count charges already paid by customers under line extension policies?

A. No. Any customer payments under Rule 7 are for costs in excess of the margin anticipated to be recovered in rates. Rule 7 is indifferent to whether the component forecasted to be recovered in rates is recovered in fixed or volumetric charges. Mr. Lazar's testimony is also misleading in suggesting that a facilities charge would result in double counting for a small use customer such as natural gas cooking only. The customer contribution, if any, is based upon the difference between the standard cost of hooking up the customer and the anticipated margin from future service. I have two issues with Mr. Lazar's example. First, as previously noted, the line extension policy does not make assumptions about how the margin is collected. Second, the line extension policy does not address embedded costs. One of the motivations for the Company's facility charge proposal is that the cost of the distribution system is largely fixed and rates are designed to recover embedded cost and not marginal cost. Requiring customers to pay their share of the fixed distribution system is not double counting.

Q. Do you agree with Mr. Lazar's example that a natural gas customer would

be "paying one and one-half times for the facilities that provided their service"?[11]

A. No. Under the Company's proposal, a small user such as a natural gas cooking customer would be contributing to the distribution system that is used to deliver natural gas to the service line that the customer has paid for through a combination of the line extension charge and the forecast of margin to be received from sale of natural gas.[12] From a marginal cost perspective, the current line extension policy ensures that the customer pays the marginal cost of the hookup. However, the small natural gas user in Mr. Lazar's example is currently being subsidized by all the other customers who are paying for the embedded cost of the distribution system as well as all improvements necessary to maintain the service life and safety of the distribution system. The Company's proposal is actually more equitable; all customers are paying the cost of the natural gas they consume, paying for their service line, and contributing towards the fixed cost of natural gas delivery system. In a sense, it is the current system that is discriminatory in that the small user does not have to contribute to the cost of the delivery system (with the exception of the service line.)

Q. **Mr. Lazar states on page 43 of Exhibit No. ___(JL-1T) in his testimony that the Company's proposed gas rate design ".... violates the intent of the**

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[11] Exhibit No. ___(JL-1T) page 41 lines 16-17

[12] Gas cooking falls into Mr. Lazar's definition of discretionary usage. See Exhibit No. ___ (JAH-28).

Merger Stipulation" by somehow reducing gas availability to small use customers or being anticompetitive between gas and electric service. Is this true?

A. No. The Company's proposal does not in any way violate the Merger Stipulation. In fact, the Company's facility charge ends up with slightly lower bills for gas space heating customers compared to not having a facility charge. This should result in making gas space and water heating more attractive than electric heat, in direct contradiction to Mr. Lazar's arguments.

Q. Has the Company considered the impacts of the proposed residential rate design on low-income natural gas users?

A. Yes. Based upon my analysis, approximately 30% of the low-income customers will have lower annual bills as a result of the facilities charge. Approximately 65% of the low-income customers will have monthly bill increases of less than $5. The Company is sensitive to the these customers but also recognizes that the low income assistance program is available to assist those customers.

XII. NON-RESIDENTIAL NATURAL GAS RATE DESIGN

Q. Please summarize the changes proposed by Commission Staff, NWIGU, Seattle Steam, and CMS for Schedules 57 and 87.

A. These parties propose the following changes:

- Commission Staff has proposed a $500 basic charge for Schedule

87 and an $800 basic charge for Schedule 57, indicating that the $300 differential is the incremental customer cost of taking service at Schedule 57.

- NWIGU is proposing unbundling the rates where there would be a $200 differential in the basic charge between Schedules 57 and 87, the transportation charges would be equivalent and Schedule 87 would have a procurement charge.

- NWIGU is also proposing not to increase the demand charge and to change the notification period for switching between Schedules 57 and 87.

- CMS supports NWIGU's position on the rate design and argues for modifications to the terms and conditions of service including changes to the notification period for switching schedules.

- Seattle Steam is proposing to price the delivery service at different rates for Schedules 57 and 87 and not allocating any rate increase to Schedule 57.

Q. Is the Company proposing any changes to its original Schedule 57 and 87 rate design as a result of the intervenor comments?

A. Yes. The Company is proposing to treat the customers taking service under these two tariffs collectively for purposes of cost of service and rate spread. Both tariffs provide comparable delivery services so it is proposed that the two rates

continue to have the same charges for those services. The Company agrees with Commission Staff that there should be a different basic charge between sales and transportation services because of the additional activities needed to provide service to customers purchasing their own gas. In addition, the Company agrees with Mr. Schoenbeck that transportation-only customers should not be charged for natural gas procurement costs to the extent they do not benefit from those activities. The Company also agrees that the notification requirements for switching between sales and transportation service can be relaxed without economically harming other customers and that parts of the service agreement can be moved into the tariff.

Q. Do you agree with Mr. Young's claim that Schedules 57 and 87 should have separate transportation rates?

A. The Company does not agree that the two classes should pay different transportation rates because the costs of that service do not differ for providing the transportation element of the service. However, as described below, the Company is proposing two modifications to its original rate design to require sales customers to pay the cost of gas procurement and transportation nomination associated with serving them.

Q. Do you agree with Mr. Lehmann's characterization that "cross subsidization" makes it difficult to compete for Schedule 85 and 87

customers?[13]

A. I respect Mr. Lehmann's knowledge of the competitive gas business, but I do not entirely agree with his analysis. As previously noted, interruptible customers on Schedules 57 and 87 are receiving the same transportation service and should pay the same rates for that service. Ensuring that the transportation rates continue to be the same between Schedules 57 and 87 ensures that customers can make an unbiased decision as to whether to procure gas on their own or through a service provider such as CMS or through PSE. Mr. Lehmann is concerned that the transportation-only customers are forced to pay for gas procurement and storage related costs and hence are subsidizing Schedule 87 customers.

The Company has reviewed Mr. Lehmann and Mr. Schoenbeck's arguments and agrees that a procurement charge unique to Schedule 87 is appropriate. However, the Company feels that further review of the terms and provisions of Schedule 57 are appropriate in conjunction with reducing or eliminating the allocation of gas storage costs to Schedule 57 customers to ensure that they continue to pay costs associated with their use of PSE's storage facilities.

Q. Do you agree with Mr. Schoenbeck's proposal for the natural gas procurement charge?

A. The Company agrees with the concept of the natural gas procurement charge and propose to accept his $0.0035/therm charge for purposes of this proceeding.

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[13] Exhibit No. ___(TL-1T) p 5 lines17 – 19.

Q. What is the Company proposing with respect to the customer charge for transportation service?

A. The Company is proposing to accept the Commission Staff's recommendation to maintain the current differential at $300. This results in a $500 customer charge for Schedule 87 customers and $800 for Schedule 57 customers.

Q. Do you agree with Mr. Schoenbeck's proposal to not increase the firm demand charge?

A. No, since both the commodity and demand components are in excess of the cost of service, the Company's proposal is to apply an equal percent increase to those charges after removing the basic charge and procurement charge from the class revenue requirement.

Q. Has the Company evaluated the customer impacts of the proposed rate design changes for Schedules 57 and 87?

A. Yes, the customer impacts are shown in Exhibit No. ___(JAH-26).

Q. Are any changes to the notification period for switching between Schedules 57 and 87 being proposed by the Company?

A. The Company reviewed the testimony of CMS and NWIGU and agrees that some changes are appropriate. CMS argues for reducing the notification period from ninety to thirty days since other customer classes are protected by the

"uncollected gas cost adjustment for migrating customers."[14] (Schedule 57 actually specifies a sixty day notice period, and not ninety days as indicated by Mr. Lehmann.) NWIGU recommends that the notification period be reduced from sixty days to thirty days. The Company has reviewed these two proposals and has concluded that reducing the notification period from sixty to thirty days is reasonable.

Specifically, the Company proposes to allow customers on Schedules 57, 85, 86 and 87 to switch upon 30 days notice following the initial year commitment under these schedules. A customer switching Schedules must pay all conversion, migration, and applicable gas costs. In addition a customer switching from a sales schedule outside the election period of April through July must pay the procurement charge until the start of the next election period.

Q. Have you recalculated rates based upon the revised cost of service and proposed changes?

A. Yes. The revised rates are shown in Exhibit No. ___(JAH-25).

Q. Does this conclude your pre-filed rebuttal testimony?

A. Yes.

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[14] Exhibit No. ___(TL-1T) p7 lines 16 - 19