EXHIBIT NO. ___(DWH-6T)
DOCKET NO. UE-060266/UG-060267
2006 PSE GENERAL RATE CASE
WITNESS: DAVID W. HOFF

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.,** **Respondent.**	**Docket No. UE-060266** **Docket No. UG-060267**

PREFILED REBUTTAL TESTIMONY (NONCONFIDENTIAL) OF DAVID W. HOFF ON BEHALF OF PUGET SOUND ENERGY, INC.

AUGUST 23, 2006

PUGET SOUND ENERGY, INC.

PREFILED REBUTTAL TESTIMONY (NONCONFIDENTIAL) OF DAVID W. HOFF

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PUGET SOUND ENERGY, INC.

PREFILED REBUTTAL TESTIMONY (NONCONFIDENTIAL) OF DAVID W. HOFF

I. INTRODUCTION

Q. Are you the same David W. Hoff who submitted Prefiled Direct Testimony in this proceeding on July 7, 2006, on behalf of Puget Sound Energy, Inc. ("PSE" or "the Company")?

A. Yes.

Q. Please summarize the purpose of your rebuttal testimony.

A. My rebuttal testimony responds to

(i) the prefiled direct testimony of Ms. Joelle R. Steward, Exhibit No. ___(JRS-1T), on behalf of the Washington Utilities and Transportation Commission Staff ("Commission Staff") and

(ii) the prefiled direct joint testimony of Mr. Jim Lazar, on behalf of Public Counsel, Mr. Donald Schoenbeck, on behalf of the Industrial Customers of Northwest Utilities, and Ms. Steward, on behalf of Commission Staff (collectively, the "Joint Parties"), Exhibit No. ___(JOINT-1T)

with respect to the monthly residential gas customer charge and its relationship to rate design principles. My rebuttal testimony also provides an estimate of the additional cost of collecting and analyzing weather adjustment data as suggested in the prefiled direct testimony of Dr. Yohannes Mariam, Exhibit No. ___(YKGM-1T).

Q. Please summarize your conclusions with respect to the monthly residential gas customer charge and its relationship to rate design principles.

A. The Company, in this rebuttal testimony, is proposing a monthly residential gas customer charge of $17 per month. This charge would reduce customer bill volatility, alleviate margin recovery instability, be fair and understandable, and send an appropriate price signal, all without undue bill impact.

The Company initially proposed a charge of $8.25 per month with adoption of the Gas Revenue Normalization Adjustment ("GRNA") decoupling mechanism and a charge of $17 per month if the Company's proposed GRNA is rejected. After reviewing and analyzing the testimony filed by other parties responding to our initial proposal, the Company has concluded that the residential gas customer charge should be increased to $17 per month (and the delivery charge correspondingly decreased), even if the Company's decoupling proposal is accepted in its entirety. A $17 per month customer charge is supported by the customer costs derived from the Company's cost of service study.

The Joint Parties present flawed calculations of the gas residential customer costs and use these flawed calculations to support their proposed $7.00 per month customer charge. A residential gas customer charge substantially greater than the $7.00 per month proposed by the Joint Parties[1] produces substantially greater

[1] The testimony of Steven D. Weiss on behalf of NW Energy Coalition, Exhibit No. ___(SDW-1T) adopts, without separate analysis, the Joint Parties' proposal for a $7.00 per month customer charge.

benefits to both customers and the Company while satisfying all of the rate design principles and objectives advanced by Ms. Steward. In addition, a charge substantially greater than $7.00 per month would complement the GRNA by reducing the magnitude of the GRNA adjustments.

II. RESIDENTIAL GAS CUSTOMER CHARGE

A. The Residential Gas Customer Charge is a Fixed Charge that Recovers Fixed Costs

Q. Please describe the residential gas customer charge.

A. The Company currently has three base charges for residential gas service: the "customer charge", the "delivery charge", and the "gas cost." The gas cost is a volumetric, variable charge (cents per therm) that is intended to recover ("flow-through") the Company's purchased gas expenses. The customer charge is a fixed charge (dollars per month) and the delivery charge is a variable charge (cents per therm) that together are intended to recover the Company's margin attributable to residential gas service. "Margin" essentially consists of the fixed, non-gas expense of providing gas service. As explained in the prefiled direct testimony of Mr. Ronald J. Amen, Exhibit No. ___(RJA-1T), margin is the Company's cost of gas service exclusive of purchased gas expenses and any other expenses that are simply treated as flow-through items in rates (e.g., revenue taxes).

Q. Please give examples of the interrelationship between the customer charge and the delivery charge.

A. Both are used to recover margin, and if one goes up, the other goes down, and vice versa. For illustrative purposes, consider two extreme examples. Under the first example, the customer charge recovers the entire margin, and there is no per therm charge for delivery. Under the second example, the opposite is true -- the customer charge is zero, but there is a higher per therm delivery charge. An average customer would pay the same total amount of margin over a one-year period under both examples if temperatures were average. An equal amount of margin would be paid each month under the first example, but the amount of margin paid each month would differ under the second example. (Of course under either example, the total bill will also include an additional flow-through charge for gas.)

The average customer would have lower bills in the summer and higher bills in the winter under the second example as compared with the first example.

The following table shows customer charges, delivery charges, and gas cost charges, and the corresponding annual average monthly bills, for residential customers under Schedule 23 with typical low, average and high usages. The table shows this information under the following: (i) current rates, (ii) the Company's initial proposal (with GRNA), (iii) the "straight-fixed variable" ("SFV") rate design, which is described in Mr. Amen's rebuttal testimony, Exhibit

No. ___(RJA-11T), and under which all fixed costs are recovered through a fixed charge, and (iv) a Modified SFV rate design, which is described later in my testimony and which is the rate that the Company now recommends, following review and analysis of the other parties' prefiled response testimony.

Puget Sound Energy
Residential Gas Customer Impacts
Schedule 23

Line	Charge	Current Rates	Initial Proposal with GRNA	Modified SFV Rate Proposal	SFV Rate
1	Customer Charge	$6.25	$8.25	$17.00	$29.76
2	Delivery Charge	$0.28759	$0.31615	$0.18752	$0.00000
3	Gas Cost Charge	$0.79210	$0.79210	$0.79210	$0.79210
4	Monthly Bill Impacts:				
5	High (110 Therms)				
6	Monthly Bill	$ 125.02	$ 130.16	$ 124.76	$ 116.89
7	$ Change over Current		$ 5.14	$ (0.26)	$ (8.13)
8	Average (68 Therms)				
9	Monthly Bill	$ 79.67	$ 83.61	$ 83.61	$ 83.61
10	$ Change over Current		$ 3.94	$ 3.94	$ 3.94
11	Low (32 Therms)				
12	Monthly Bill	$ 40.80	$ 43.71	$ 48.35	$ 55.11
13	$ Change over Current		$ 2.91	$ 7.55	$ 14.31

The Company's cost of service model indicates that the margin for residential gas customers is $29.76 per month. Under the SFV rate design, the customer charge would be set equal to this amount, leaving no margin to be recovered through the volumetric delivery charge.[2] Under the Company's Modified SFV Rate Proposal for a customer charge of $17 per month, the customer charge would be increased

[2] This $29.76 per month customer charge is calculated under the SFV rate design using the Company's test year costs and is analogous to the $25.81 per month customer charge calculated under the SFV rate design using current rates by Ms. Joelle R. Steward in page 11 of her prefiled response testimony, Exhibit No ___(JRS-1T).

from $6.25 per month and recover a significantly greater portion of the Company's margin (but would not be increased to include the entire margin in order to avoid undue bill impacts).

Q. Please describe how the customer charge complements the Company's proposed GRNA.

A. Any increase in the residential gas customer charge will decrease the portion of residential gas margin to be recovered through the volumetric delivery charge and hence reduce the magnitude of adjustments to be made under the GRNA. The GRNA will adjust the remaining amount of gas margin collected through the volumetric delivery charge so that the costs included in the margin approved by the Commission are not over or under collected. Thus, the GRNA and the increased customer charge proposed by the Company work together to alleviate customer bill instability and Company revenue instability created by recovery of a portion of the fixed costs through the volumetric delivery charge.

Q. Would increasing the customer charge adversely affect the incentive for customers to conserve?

A No. As discussed further in the rebuttal testimony of Mr. Amen (RJA-11T), the volumetric charge associated with the gas portion of the bill provides sufficient—and appropriate—incentive for customers to conserve.

Q. Please describe the portions of margin recovered by the residential gas customer charge, existing and as proposed by the Company.

A The current charge was set to recover only about 24% of the current residential gas margin. The remaining 76% of the (non-volumetric) margin was allocated for payment through the (volumetric) delivery charge.

A $17.00 per month residential customer charge as proposed in this testimony would still leave more than 40% of the margin to be recovered through the volumetric delivery charge.

Q. Please describe the portion of margin recovered by the residential gas customer charge proposed by the Joint Parties.

A. A residential gas customer charge of $7.00 per month as proposed by the Joint Parties would recover only about 24% of the residential gas margin in this proceeding.[3] This the same portion as under existing rates. In other words, the Joint Parties are proposing essentially no increase in the percentage of margin recovered through the customer charge.

[3] The remaining 76% of these non-volumetric costs are allocated for payment through the volumetric delivery charge.

B. The Joint Parties Present a Flawed Range of Calculations of Residential Gas Customer Costs and Use This Flawed Range to Support Their Proposed $7.00 Per Month Customer Charge

Q. What residential customer costs do the Joint Parties calculate?

A. Because the Joint Parties do not agree on the methodology to be used for computing the customer charge,[4] they present three different calculations of residential gas customer costs (which include 100%, 50% and 0% of the service line costs, respectively). Service line costs should be included in the customer cost in their entirety and are included under the Commission Basis cost of service methodology and under the PSE methodology for calculating customer costs. The Joint Parties do not explain their exclusion of 50% or 100% of service line costs from their calculations. The Joint Parties' calculations also exclude, without explanation, allocated customer costs that are included in the Commission Basis gas cost of service methodology and in the PSE methodology.

In addition, each of the Joint Parties' calculations contains a significant spreadsheet reference error. For example, when this error in their calculation with 100% of service line costs is corrected, the resulting customer cost increases by $2.21 per month.

Exhibit No. ___(DWH-7) presents the calculation of residential customer costs,

[4] *See* Exhibit No. ___(JOINT-1) at page 10.

(i) as calculated by the Joint Parties including 100% of service line costs (Joint Parties Cost 100% Service Line), $11.15 per month[5];

(ii) as calculated by the Joint Parties including 100% of service line costs,[6] (Joint Parties Cost 100% Service Line with Computation Corrected), $13.36 per month;

(iii) as calculated using the Company's cost of service in this case (PSE Cost), $17.51 per month;[7] and

(iv) as calculated using the Commission Basis cost of service methodology (Commission Basis Cost), $16.67 per month;

and identifies the costs that are included in each calculation.

Q. Do the Joint Parties use residential gas customer costs in arriving at their recommended $7.00 customer charge?

A. The Joint Parties assert that their recommended customer charge of $7.00 is reasonable given the range of customer costs that they calculated, from $6.38 (with all service line costs improperly excluded) to $11.15 (with 100% of service costs included). Correcting the Joint Parties' calculation error increases this $11.15 amount by $2.21 to $13.36. Thus, the Joint Parties' calculation, when corrected, supports a customer charge of at least $13.36 (which is $6.36 higher

[5] Exhibit No. ___(JOINT-7), as revised pursuant to the Response of Commission Staff to PSE Data Request No. 136, which also revised their calculations of the 50% service line cost inclusion customer cost and the 0% service line inclusion customer cost to $8.77 and $6.38, respectively.

[6] The error is at line 21 of Exhibit No. ___(JOINT-7), as revised pursuant to the Response of Commission Staff to PSE Data Request No. 136 (which corrects a different error). The cell at line 21 erroneously uses line 12 as the divisor instead of line 13.

[7] A $17.00 per month residential gas customer charge less than the customer cost of $17.51 per month calculated using the Company's cost of service and less than the customer charge of $29.76 under the SFV rate design.

than their recommendation). As discussed above, the Commission Basis gas cost of service method results in a customer cost of $16.67 per month.

The Joint Parties use an erroneously low range of customer cost calculations—that falls far below the Commission Basis gas cost of service customer costs—in an effort to support their recommendation.

Q. What other arguments do the Joint Parties make to support their proposed $7.00 customer charge?

A. The Joint Parties advance two other arguments for rejecting the $8.25 customer charge initially proposed by the Company in favor of their $7.00 proposal. In their view, a $7.00 charge will provide a better price signal and represents a more gradual "change."(Ms. Steward also advances similar arguments in her separate testimony.)

As I point out later in my testimony, recovering a smaller portion of margin through the fixed customer charge sends an inferior price signal because it tends to overcharge or undercharge customers for margin as loads vary from normal.

The argument that a $7.00 charge is a more gradual "change" ignores the fact that it is not a change in any meaningful sense. The Joint Parties' $7.00 proposal would, as discussed above, result in essentially no increase in the percentage of margin recovered through the fixed customer charge. Both the existing customer

charge and Joint Parties' proposed customer charge are set to recover approximately 24% of the margin.

C. A Residential Gas Customer Charge of $17.00 Per Month Benefits Both Customers and the Company and Is Consistent With the Ratemaking Principles and Objectives Advanced by Ms. Steward

Q. What are the rate design principles identified in the prefiled direct testimony of Ms. Joelle Steward, Exhibit No. ___(JRS-1T)?

A. At page 4 of her prefiled direct testimony, Ms. Steward identifies the following rate design principles:

> The general principles to be applied in rate determination are fairness, rate stability for the company, rate stability for customers, understandability, and sending proper price signals.

In setting forth these principles, Ms. Steward recognizes that there is no perfect solution that all parties would agree will satisfy all these criteria and that judgment must be applied in deciding these issues. Ms. Steward also states that rate shock is inadvisable.[8] These rate design principles are generally accepted.

Q. Is the $17 per month customer charge consistent with these generally accepted principles?

A. Yes, as I discuss below.

[8] *See* Exhibit No. ___(JRS-1T) at 12.

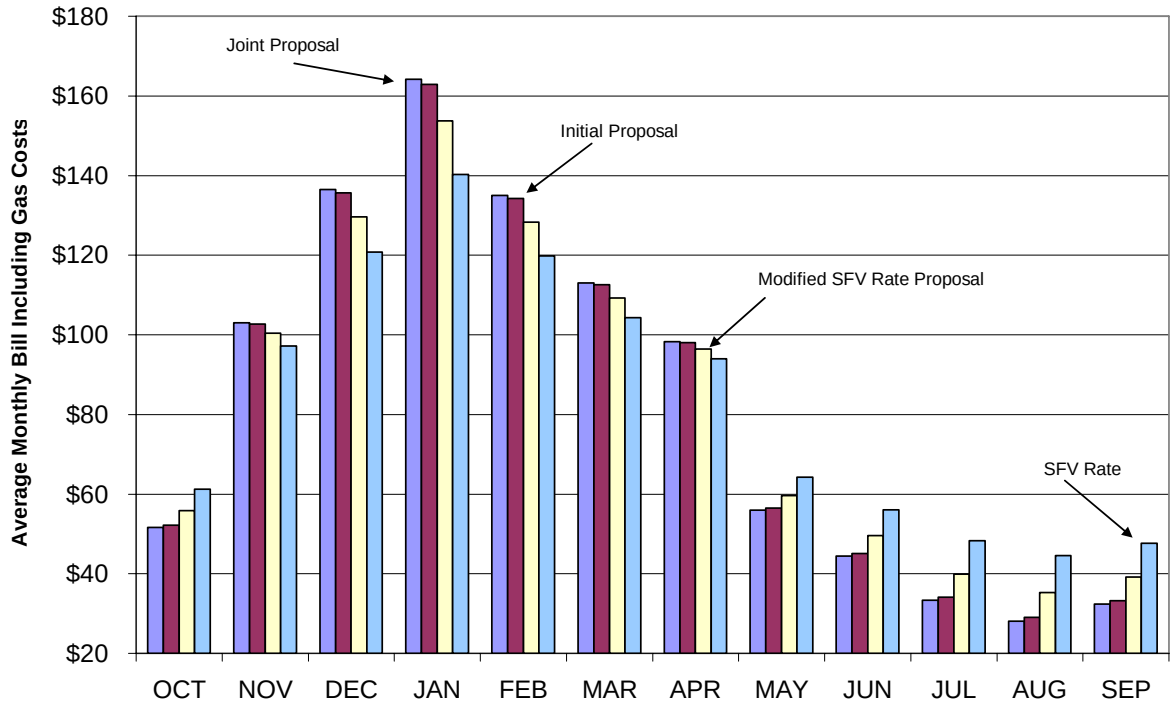
1. Bill and Revenue Stability

Q. How does the customer charge affect bill and revenue stability?

A. A higher customer charge provides increased bill stability for customers and increased revenue stability for the Company. Figure 1 below depicts a typical gas customer's monthly bills (for both gas costs and margin) under four different levels of customer charge:[9] (i) the $7 proposal of the Joint Parties ("Joint Proposal"), (ii) the Company's $8.25 initial proposal with GRNA ("Initial Proposal"), (iii) the Company's $17 proposal in this rebuttal testimony ("Modified SFV Rate Proposal"), and (iv) the $29.76 SFV Rate.

[9] Each of the customer charges has a corresponding per therm delivery charge that is set to recover, in combination with the customer charge, the same total margin revenue under test-year billing determinants (i.e., a higher customer charge is accompanied by a lower per therm delivery charge.)

Bill (Including Gas Cost) Stability - Monthly Variation **Figure 1**



Not surprisingly, the most stable monthly bills are produced by the SFV Rate, and the least stable are produced by the Joint Proposal. This result is intuitively obvious, since under the SFV Rate, customers pay the margin through a fixed customer charge each month, regardless of gas usage. By contrast, under the Joint Proposal customers pay substantially more of the margin in the winter and less in the summer. As a result, the average bill in January is more than $20 higher under the Joint Proposal than under the SFV Rate.

Page 1 of Exhibit No. ___(DWH-8) shows the monthly margin that would be recovered by the Company during the test year under each of the same four customer charges. This figure shows that the most stable monthly revenues are

produced by the SFV Rate, and the least stable revenues are produced by the Joint Proposal.

2. Bill Impact

Q. Does Ms. Steward perform a bill impact analysis?

A. Yes, but the only bill impact analysis Ms. Steward performs is on a customer charge of $25.81 per month,[10] which is substantially greater than the $17 per month customer charge proposed by the Company in this rebuttal testimony. Additionally, her analysis overstates the magnitude of the impact.

Q. Please describe Ms. Steward's bill impact analysis.

A. She performed an analysis of bill impacts, based on bill frequency data (distribution of customers by usage), that would result from a $25.81 per month customer charge and concluded that this charge would result in 45% of customers seeing a bill increase of 16% or higher. From this, Ms. Steward concludes that a customer charge of $25.81 would impose unacceptable "rate shock."[11] However, I believe that her analysis overstates bill impact. Bill impact is best analyzed by looking at the annual average monthly bills of each customer (i.e., the sum of the 12 monthly bills for each customer for the year divided by 12) and by looking at the impact during the months when the customer's bill is the highest.

[10] This charge is equal to her calculation of what the SFV charge would be under current rates.

Q. Why do you believe Ms. Steward's analysis overstates bill impact?

A. The bill impact analysis performed by Ms. Steward is based on a traditional *monthly* bill frequency analysis. It overstates the impact on customers because it shows many large percentage bill increases in a customer's relatively low bills in the summer and shoulder months, but fails to link such increases with the correspondingly lower increases in bills for that same customer in the winter. Customers paying the higher summer and shoulder month bills will also see lower winter bills, because any change in rate design to increase the customer charge is fully offset by a decrease in the per therm rate.[12]

A more useful analysis of customer impacts would be an *annual average monthly bill* analysis that I performed and that takes into consideration the net effect of higher summer bills and lower winter bills.[13] Figure 1 of Exhibit No. ___(DWH-9) demonstrates the importance of such an analysis by showing that (i) almost a quarter of the monthly bills examined in a monthly bill frequency analysis are for usage of 20 therms or less per month, but (ii) fewer than 5% of the annual average bills examined in my bill frequency analysis are for usage of 20 therms or less per month. Also, I believe the analysis should look at the amount of change in dollars

[11] "Rate shock" is a subjective term for a sudden and large change in bills. It is generally assessed by analyzing how a change in rates impacts a customer's total bill.

[12] In other words, although 45% of bills in Ms. Steward's analysis show an increase of 16% or more, most of those bills are in the summer and shoulder months, because residential gas bills are relatively lower during this period.

[13] The data for this type of annual average bill analysis has not been compiled until recent years. This type of analysis is important in understanding the impacts on and benefits to customers resulting from a significantly increased customer charge.

paid per month instead of percentage increases. This is again because the percentage increase in summer bills appears relatively high because the summer bills are themselves relatively low.[14]

Q. Have you performed the annual average analysis you recommend?

A. Yes, I have performed, and show in Figures 2, 3 and 4 of Exhibit No. ___(DWH-9), the annual average analysis looking at the amount of change in dollars paid per month (instead of percentage increases) for the Joint Proposal, the Initial Proposal and the Modified SFV Rate Proposal.[15] This analysis shows that, while the distribution of impacts of the Modified SFV Rate Proposal is flatter than under the other two scenarios, less than 10% of the customers receive an increase of more than $8.00 a month. The maximum increase of $10.75 per month occurs for those very few customers who had no gas usage during the test year. These customers, however, would experience this maximum increase because under current rates, they are paying a disproportionately small share of the margin.

Figure 5 of Exhibit No. ___(DWH-9) compares the bill frequencies of low-income customers with those of the Company's residential customers generally and demonstrates that the distributions of usage levels of these two groups are remarkably similar. Accordingly, the bill impact analysis for low income customers would be very similar to that for customers generally.

[14] *See also* the "Analysis of Customer Charge Bill Impacts," Exhibit No. ___(DWH-9).

[15] Because it is apparent the SFV Rate would result in an unacceptable bill increase for customers, no bill impact analysis was performed for the SFV Rate.

I believe the Modified SFV Rate Proposal would result in acceptable impacts, when the benefits of more stable monthly bills, lower winter bills and bills that more fairly share fixed costs are taken into account.

3. Price Signal

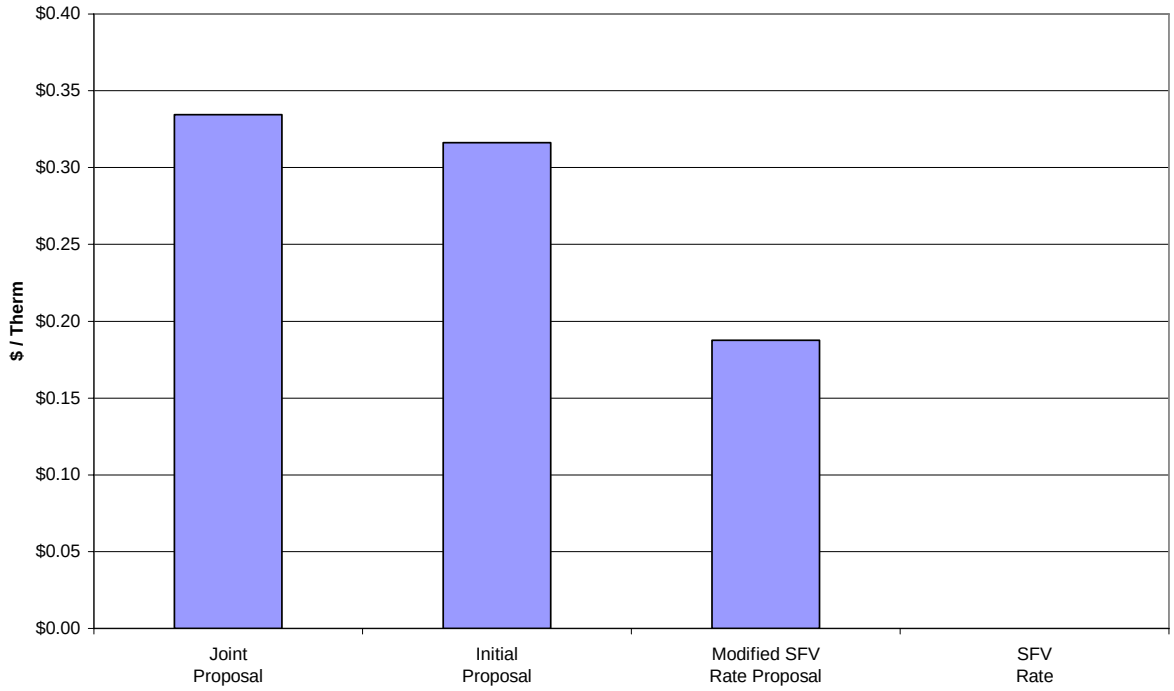
Q. Please describe the price signal under the different levels of customer charge.

A. The prefiled rebuttal testimony of Mr. Amen Exhibit No. ___(RJA-11T) responds to the Joint Parties' price signal argument and shows that the volumetric charge associated with the gas portion of the bill provides sufficient--and appropriate--incentive for customers to conserve. Mr. Amen's prefiled rebuttal testimony also shows that the $7.00 customer charge does not convey an appropriate price signal to customers.

As the proportion of non-volumetric costs recovered through volumetric rates increases, the worse the price signal becomes. For example, if the volumetric charge is greater than zero, customers pay more margin when their consumption is higher, as in the winter or during a cold snap, even though the Company's customer costs are not higher in the winter or during a cold snap. Figure 2 below compares the price signal under each of the four customer charges discussed above by comparing the amount of non-volumetric costs included in volumetric rates under each such customer charge scenario.

Price Signal
Amount of Non-volumetric Costs Included In Volumetric Rates

Figure 2



4. Understandable

Q. Please discuss the understandability of customer charges.

A. Understandability as a rate design principle is essentially subjective. The SFV rate design is understandable because customers pay their shares of fixed costs, no more and no less. To the extent customers pay fixed costs through a volumetric charge, as they would under the other rate scenarios, they are exposed to over or under-paying fixed costs–which is not understandable. It is intuitively obvious that a customer should not pay more for fixed costs when the weather is

cold, and conversely should not pay less for fixed costs when the weather is warm.

5. Fair

Q. Please discuss the fairness of customer charges.

A. A higher customer charge benefits customers. A higher customer charge is fair because it increases the portion of the (non-volumetric) margin recovered through the (non-volumetric) customer charge. With a higher customer charge, a higher percentage of the non-volumetric costs is paid in equal shares. For example, each customer under the SFV rate design pays the full share of the non-volumetric cost allocated to him or her. Accordingly, each customer would not, under the SFV rate design, "overpay" or "underpay" his or her share of the non-gas costs based on the customer's consumption relative to average consumption, would not pay a higher delivery charge in the winter than in the summer, and would not pay a higher delivery charge during a cold spell.

The effect of collecting margin through volumetric charge can be illustrated by comparing the costs of serving, and bills for service to, a summer home and a principal residence. The costs of service lines and meters necessary to provide service to a house are the same, regardless of whether it is a summer home or a principal residence. However, to the extent that the margin is recovered through a volumetric delivery charge, the customer receiving service to the summer home will pay a significantly lower share of the margin.

Under the Joint Proposal, customers who have very little annual usage, such as owners of second homes, can pay less than 50% of their allocated customer costs, while very high use customers can pay over 200%.[16] This is because a customer charge of $7.00 is substantially less than the $29.76 cost of service allocation of non-volumetric costs.

D. In Sum, a Residential Gas Customer Charge Substantially Greater Than $7.00 Per Month Satisfies All of the Rate Design Principles and Objectives Advanced by Ms. Steward and the Joint Parties

Q. Please summarize your conclusions regarding application of the rate design principles described by Ms. Steward to each of the of the four customer charges discussed in your testimony.

A. Not surprisingly, the SFV Rate, which recovers the same amount of margin each month regardless of usage, produces the most stable bills for customers and most stable revenues for the Company. This rate would be the most equitable and understandable and would send the most appropriate price signal because it would only charge each customer his or her share of fixed costs. However, I believe the SFV Rate would at this time produce unacceptable bill impacts. The Modified SFV Rate Proposal produces much of the same benefits of the SFV Rate and, in light of such benefits, does not in my judgment produce undue bill impacts.

[16] Page 2 of Exhibit No. ___(DWH-8), compares (i) the margin that each residential gas customer would have paid during the test year under the Joint Proposal, the Modified SFV Rate Proposal, and the SFV Rate with (ii) the (non-volumetric) margin expenses allocated to that customer through the Company's cost of service analysis.

III. COSTS OF COLLECTION AND ANALYSIS OF ADDITIONAL WEATHER ADJUSTMENT DATA

Q. Please discuss Dr. Mariam's testimony regarding a requested order from the Commission directing the Company to collect additional weather adjustment data and perform additional studies ?

A. Professor Dubin discusses this issue in depth. I estimate that the cost of performing the additional work to collect and analyze weather adjustment data as proposed by Dr. Mariam would, over the first 3 years, be $2.5 million for electric service data and $1 million for gas service data. In the first year, I estimate that the cost would be $635,500 for electric service data and $106,000 for gas service data. These estimates are described in detail in Exhibit No. __(DWH-10). If the Commission orders such collection and analysis of data, the Company's rate proposal should be increased commensurately.

IV. RATE IMPACT OF THE COMPANY'S PCA SHARING BAND

Q. If customers were billed for one-half of the first $25 million band of PSE's proposed PCA mechanism, what would the impact on the typical residential electric customer?

A. If $12.5 million were to be added to customers' bills, the impact on the typical residential electric customer would be $0.66 per month.

V. CONCLUSION

Q. Does that conclude your prefiled rebuttal testimony?

A. Yes.