Exhibit No. ___ T (DJR-1T)
Docket UE-111048/UG-111049
Witness: Deborah J. Reynolds

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant, v. PUGET SOUND ENERGY, INC., Respondent.	DOCKET UE-111048 DOCKET UG-111049 (*Consolidated*)

TESTIMONY OF

DEBORAH J. REYNOLDS

STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

December 7, 2011

Conservation Savings Adjustment
Electric Cost of Service, Revenue Allocation and Rate Design

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LIST OF EXHIBITS

I. INTRODUCTION

Q. Please state your name and business address for the record.

A. My name is Deborah Reynolds. My business address is the Richard Hemstad Building, 1300 S. Evergreen Park Dr. SW, Olympia, WA 98504-7250. My e-mail address is dreynold@utc.wa.gov.

Q. By whom are you employed and in what capacity?

A. I am employed by the Washington Utilities and Transportation Commission ("Commission") as a Regulatory Analyst in the Energy Section of the Regulatory Services Division. My employment at the Commission began in 1999.

Q. Please describe your education and your professional qualifications?

A. I have a Bachelor of Science degree in General Studies emphasizing ecology and statistics and a Master of Regional Planning degree, both from Washington State University. I attended the National Association of Regulatory Utility Commissioners' Annual Regulatory Studies Program in August 2004, the New Mexico State University's rate case basics workshop in May 2008, Electric Utility Consultants, Inc.'s cost of service and rate design workshops in August 2008, the International Energy Program Evaluation Conference and training in August 2009, as well as a number of other utility related seminars, conferences, and training opportunities.

As a Regulatory Analyst for the Commission, I am responsible primarily for reviewing and evaluating conservation programs, conservation resource planning, cost of service, rate spread and rate design, decoupling, reliability, service quality, low-income issues, and other analyses in general rate case and tariff filings of electric and natural gas utilities regulated by the Commission. I also provide technical assistance to companies on energy regulatory matters.

I have participated in the development of Commission rules and examined utility reports for compliance with Commission regulations. I have also presented Staff recommendations at numerous open public meetings. I have filed testimony on decoupling in Avista's consolidated general rate case, Docket UE-090134, UE-090135 and UG-060518, and Staff comments on conservation target filings in Dockets UE-100170, UE-100176, and UE-100177.

II. SCOPE AND SUMMARY

Q. What is the purpose of your testimony?

A. I provide Staff's recommendations on electricity revenue allocation and rate design for Puget Sound Energy, Inc. ("PSE" or the "Company"), given the Staff recommended revenue increase presented by Mr. Roland Martin. I also respond to PSE's Conservation Savings Adjustment ("CSA") proposal.

Q. Please summarize your recommendations for electricity revenue allocation and rate design.

A. I accept the Company's proposed electricity revenue allocation and rate design for the purposes of this general rate case. I recommend further study of the Schedule 40 Campus Rate.

Q. Please summarize your recommendation regarding the CSA.

A. The Company's case for the CSA is insufficient, and the Commission should therefore reject the CSA. First, the CSA is a form of limited decoupling and PSE failed to satisfy the Commission's threshold requirement that the Company address limited decoupling proposals in the context of the Commission's Decoupling Policy Statement. [1]

Should the Commission see the need to go further, it should reject the CSA because the CSA is limited decoupling applied to electric operations, which violates Commission policy that limited decoupling is confined to natural gas operations. Should the Commission evaluate the reasons underlying that Commission policy, each such reason applies to the CSA. Finally, the Commission should reject the CSA because the Company has not adequately supported the calculation of the adjustment.

Q. Have you prepared any exhibits in support of your testimony?

A. Yes. I have prepared the following exhibit in support of my testimony:

- Exhibit No. __ (DJR-2), Rate Spread Summary

[1] *In the Matter of the Washington Utilities and Transportation Commission's Investigation into Energy Conservation Incentives.* Docket U-100522, Report and Policy Statement on Regulatory Mechanisms, Including Decoupling, to Encourage Utilities to Meet or Exceed Their Conservation Targets (November 4, 2010) ("Decoupling Policy Statement").

III. REVENUE ALLOCATION AND RATE DESIGN

A. Electric Revenue Allocation - Cost of Service and Rate Spread

Q. Please explain revenue allocation and rate design.

A. Revenue allocation, also known as "rate spread", is the process of determining the portion of total revenues to be collected from each rate schedule. Rate design takes the total revenue to be collected from each rate schedule and determines the specific charges within the schedule, such as the basic charge per month, the demand charge per kilowatt, and the exact cents per kilowatt-hour.

Q. What is the philosophy behind allocating revenues to the rate schedules?

A. The basic philosophy is to charge customers for the costs they impose on the total system. The premise of cost causation is present in many aspects of determining rates in a price-regulated industry. A precise calculation of the costs to be recovered by the customers on each rate schedule is possible, given any one set of allocation assumptions. However, the Commission has often stated that factors in addition to cost weigh in the rate spread decision, including the appearance of fairness, perceptions of equity, economic conditions in the service territory, and stability.

Q. What data are necessary to determine a fair allocation of revenues to the customer classes and how is that data used?

A. The utility must collect data on the use of electricity across a broad spectrum of all customers. This is known as a load study. While it is not feasible to precisely measure every customer's load, statistical sampling provides sufficient data for the intended purposes. For each customer sampled, the data collected should include, at a minimum, the electricity consumed during short time intervals around the clock and over an entire year. The purpose is to group customers into like patterns of use, to determine the time periods at which those customers demand the greatest amount of kilowatts, to compare the peak periods of a group to the lowest use periods within the same group, and to compare each group of customers to the other groups. The utility must also collect data on how it produces and buys electricity to meet customer needs.

A company's costs and plant balances, or rate base, are sorted into the basic functions of doing business such as generation, transmission, and distribution. Then the expenses and rate base are further classified as customer-related, energy-related, or demand-related. Customer-related costs are those that vary as customers are added to or subtracted from the system. Energy-related costs vary by total consumption. Demand-related costs vary by the power required to meet the demands of customers on each rate schedule.

The customer consumption data from the load study is used to determine allocation factors for each cost category. Those allocation factors are then applied to the various classifications of costs to determine the cost responsibility of the customers on each rate schedule.

Q. Does Staff accept the Company's method to allocate electric plant and expenses to the current rate schedules?

A. Yes. Mr. Piliaris presents the Company's cost of service study in Exhibit No. __ (JAP-4). That cost of service study fairly presents the costs imposed on the system by the customers on each rate schedule.

Q. Please explain the current revenue to cost ratios per rate schedule that result from the Company's cost of service study.

A. The current revenue to cost ratios appear on Exhibit No. __ (JAP-4), page 1, line 48. The 0.92 in column (b) indicates that current total Company revenues recover 92 percent of costs including a fair return on rate base. The numbers in each of the rate schedule columns show each schedule's percentage of costs recovered. For example, in column (c), revenues from residential customers under Schedule 7 recover 90 percent of the costs allocated to those customers. And in column (e), revenues from commercial customers on secondary voltage Schedule 25 recover 98 percent of the costs allocated to those customers.

Q. Please explain the current parity ratios that result from the Company's cost of service study.

A. The parity ratios on line 49, page 1 of Exhibit No. __ (JAP-4) show each rate schedule's relative contribution to the overall revenue to cost ratio. Schedule 7 shows a parity ratio of 0.98, which equals its current revenue to cost ratio of 0.90 divided by the total Company ratio of 0.92. Schedule 40 has a parity ratio of 0.94.

Ideally, each class's parity ratio should equal 1.00. A parity ratio of less than 1.00 indicates that the customers on that schedule are not paying enough to recover the costs allocated to that schedule. Therefore, those customers should get a greater than average rate increase. Conversely, schedules with a parity ratio greater than 1.00 are contributing more than necessary to recover the costs allocated to them. Those customers deserve a less than average rate increase, or even a rate decrease, to bring their rates in line with the costs allocated to them.

Q. Is it possible to achieve a parity ratio of 1.00 for every rate schedule?

A. It is arithmetically possible with a given set of assumptions. But it is not so easy to do in practice. The assumptions and results of the cost of service study are a subject of debate between the various consumer advocates. Each advocate can, and does, present a different cost of service study.

Q. Does Staff consider the cost of service study and parity ratios in Exhibit No. __ (JAP-4) a fair representation of the class contributions to the overall rate of return?

A. Yes. Staff's adjustments to electric revenue requirement revise the absolute numbers, but the relative proportion of each schedule's contribution to the total remains approximately the same.

Q. What percentages of the average percent increase to revenues does PSE propose?

A. PSE proposes an overall revenue increase of 7.73 percent. In order to move all rate schedules closer to parity, PSE proposes in Exhibit No. __ (JAP-23) a slightly larger average percent increase of 8.0 percent to the following schedules:

- Schedule 7, Residential;
- Schedule 24, Secondary voltage with demand < 50 kW;
- Schedule 26, Secondary voltage with demand > 350 kW;
- Schedules 31/35/43, Primary Voltage; and
- Schedules 46/49, High Voltage; and
- Schedules 50-59, Lighting schedules; and
- Schedules 448/449, Choice/Retail Wheeling.

PSE proposes a 75 percent of average increase of 6.0 percent to the secondary voltage Schedule 25, and a 125 percent of average increase of 10.0 percent to the choice and retail wheeling Schedules 448 and 449. Schedule 40, the Campus Rate, is determined by the outcomes of various other schedules. It receives an average increase of 6.45 percent. Finally, PSE proposes that the total increase to the firm resale rate be in excess of 48 percent to bring those customers to full parity.

Q. How are the parity ratios affected by the above percentage increases?

A. As shown on Exhibit No. ___ (JAP-4), schedules receiving less than 100 percent of the average increase will remain above parity ranging from 103 percent to 106 percent. The other classes will stay within six percent of parity.

Q. Does Staff accept the Company's proposed revenue allocation?

A. Yes, except for Schedule 40, the Campus Rate. The other proposed revenue allocations maintain or slightly improve each schedule's movement towards parity to within five percent, but the Schedule 40 allocation, which is based on other schedules' rates, does not.[2] Exhibit No. ___ (DRJ-2) shows Staff's recommended revenue allocation using Staff's recommended revenue requirement.

Q. What does Staff recommend concerning Schedule 40?

A. Staff accepts PSE's proposed revenue allocation for Schedule 40 for this case. But Staff recommends that the Commission require interested parties to meet following this general rate case to work on revisions to Schedule 40 revenue allocation, tariff and rates, with the possible conclusion of moving the customers to other schedules.

B. Electric Rate Design

Q. Please describe the basic concept of rate design.

A. Rate design concerns the various rate elements within a rate schedule. These elements may include the monthly basic charge, demand charges, reactive power charges, and energy charges.

[2] Schedules 448 and 449 are also outside the five percent band, and could be included in the discussion on Schedule 40.

Q. What are the principles of sound rate design?

A. Sound rate design should be guided by the following policy objectives: simplicity, encouraging conservation, stability, gradualism, fairness, justness, reasonableness, and sufficiency.[3]

Simple rates are made up of units of service like kilowatt hours or therms that are easy for customers to understand. If rates are complicated, the price signal may get lost in the noise. Different rate designs are appropriate for customers with different levels of sophistication. Residential customers may be best served by a fixed monthly charge and a charge per unit of use, whereas large commercial customers may be best served by per unit charges for both demand and energy.

Fair rates should create a system where each customer and each customer class pays for the costs they impose on the system. This principle, also called cost causation, is actually very difficult to achieve, because customers within a given class have similar but not identical use characteristics. It is also difficult to keep fair rates simple. For example, rate designs that include demand charges increase the number of elements that make up a customer bill. This complicates the bill, but more accurately reflects the costs imposed on the system by a particular customer.

Gradualism means that changes in rates to achieve a particular goal are made in steps, rather than all at once, thus mitigating substantial impacts to any one rate schedule or customer within a schedule. The idea of gradualism may be used to evaluate overall bill changes as well as changes in components of bills, such as the customer basic charge.

[3] James C. Bonbright, *et al. Principles of Public Utility Rates* 382-388 (2nd ed. 1988).

Sufficiency means that rates provide a reasonable opportunity for a utility to recover its costs of providing service plus a fair return on its investment. The Commission has suggested that the right balance point for recovery of fixed costs via the customer basic charge is about one-fourth of the fixed costs allocated to residential customers, or about eight to ten percent of a customer's average annual bill.[4]

As the costs of the electric system increase, more attention has been directed toward energy efficiency through the exploration of rate designs that encourage customers to use the least amount of energy possible to achieve the same desired comfort levels. Utilities are encouraged to increase the per unit charge as much as possible, with the idea that customers will reduce their use when they see their bills increase. This effect, also called price elasticity, is hard to measure and even harder to predict.

Q. Is there a standard format for residential electric rate design?

A. Yes, the standard format is a two-part rate tariff, consisting of a small basic charge and volumetric rates that recover both fixed and variable costs.

Q. What factors should be considered in reviewing price signals resulting from rate design?

A. A review of price signals should consider low, high, and average use customer experience under the current tariff, and what happens to typical customer bills under

[4] *WUTC v. Puget Sound Energy, Inc.*, Dockets UE-060266 and UG-060267, Order 08, ¶¶ 139 (January 5, 2007).

multiple conservation scenarios. It should also compare price signals under other rate designs. The review should also compare the message the customer gets from the price signal to the impact of that price signal on a company. PSE does not provide this kind of analysis.

Proponents of decoupling mechanisms suggest that maintaining higher use charges are a stronger incentive for customers to conserve, even though that very situation has the opposite effect on a company's incentive to invest in conservation measures. It is very difficult, however, to generalize about incentives to conserve, even among the same class of customers. Among PSE's residential customers, for example, customer use varies from as low as 10 kilowatt-hours per month to a high of 400,000 kilowatt-hours per month. PSE Response to Staff Data Request 96, Attachment A.

Q. Did Staff review PSE's proposed electric rate design?

A. Yes. The Company's proposed rate design is presented by Mr. Piliaris at Exhibit No. __ (JAP-1T), beginning at page 20. The Company's revised rates are presented in Mr. Piliaris' Exhibit No. __ (JAP-23).

Q. Please summarize the Company's proposed electric rate design.

A. PSE proposes an equal percentage increase to all elements of rates for all schedules with minor exceptions, as described in Mr. Piliaris' testimony.

Q. Does Staff accept the Company's rate design proposal?

A. Yes. Staff accepts the equal percentage increase to all components of rate design in this case, with the understanding that Schedule 40 should be evaluated further and revised in the next rate case. An equal percentage increase to all components of rate design maintains the ratio of revenues collected by each rate component. An equal percentage increase also brings each rate class even closer to parity without causing rate shock and yields a reasonable compensation for the service rendered.

IV. CONSERVATION SAVINGS ADJUSTMENT RATE

Q. Have you reviewed PSE's proposed Conservation Savings Adjustment Rate ("CSA")?

A. Yes.

Q. Please describe that mechanism.

A. The CSA is a hybrid adjustment mechanism intended to recover the revenue "lost" due to customers conserving electricity or gas pursuant to the Company's conservation programs. The CSA is an ongoing annual rider for both electric and gas operations. Exhibit No. __ (JAP-1T) at 32:12 to 35:2.

Q. How is the CSA rate calculated under the Company's proposal?

A. The total amount of the annual adjustment is based on multiplying a fixed-cost-recovery rate from the most recent general rate case test period by the verified

energy savings estimates from PSE's conservation programs. Exhibit No. __ (JAP-1T) at 35:4 to 43:10. Mr. Piliaris discusses the impact of conservation savings on the Company not only for the test year (2010), but also for future periods. Exhibit No. ___ (JAP-1T) at 27:7 to 29:19.

Although the CSA does not add revenues to the overall requested revenue requirement, the Company forecasts that the CSA will provide $9,800,000 in additional electric revenues and $2,000,000 in additional gas revenues during the rate year, which begins in May, 2012. Exhibit No. __ (JAP-1T) at 38 and 39, Tables 4 and 5.

Q. Please summarize your recommendation on the proposed CSA.

A. The Commission should reject the CSA because PSE's direct case fails a threshold requirement to evaluate the proposal pursuant to the Commission's Decoupling Policy Statement.

Should the Commission go further in its analysis, it should reject the CSA because the CSA is a form of limited decoupling applicable to electric operations, and the Decoupling Policy Statement confines limited decoupling to natural gas operations. Moreover, each of the reasons the Commission gives in its Decoupling Policy Statement for confining limited decoupling to natural gas operations applies to the CSA. Lastly, the Commission should reject the Company's proposed calculation of the CSA.

A. Decoupling Background

Q. What is a revenue decoupling mechanism?

A. A decoupling mechanism renders revenue levels immune to changes in sales. This is done by adjusting retail rates either upwards or downwards depending upon how revenues collected through use charges for the recovery of fixed costs compare over a certain time period with those fixed costs authorized under the decoupling mechanism.[5] Under "full" decoupling, these differences between collected and authorized revenues may be the result of changes in weather, increases in customer numbers, or changes in energy efficiency behavior by either the company or its customers. "Limited" decoupling mechanisms isolate and remove individual causes of the differences, such as weather. "Partial" decoupling mechanisms allow the recovery of only part of the difference between collected and authorized revenues.

Q. What is the intended effect of a revenue decoupling mechanism?

A. It is intended to encourage the company to increase its investment in conservation.

Q. Has the Commission in other cases considered decoupling and other rate design modifications to encourage conservation?

A. Yes. The Commission has considered rate design modifications to encourage conservation for both electric and natural gas utilities. In Docket UE-060266, the

[5] Peter Cappers, et al., Financial Analysis of Incentive Mechanisms to Promote Energy Efficiency: Case Study of a Prototypical Southwest Utility at 7, Ernest Orlando Lawrence Berkeley National Laboratory (March 2009). LBNL-1598E.

Commission adopted an electric conservation incentive program for PSE.[6] In Docket UE-050684, the Commission provided guidance regarding the necessary elements of a proposal to decouple rates from use charges.[7] Docket UG-050369 was a rulemaking where the Commission considered policies to remove the recovery of fixed costs from customers' use charges. The Commission closed the rulemaking without adopting new rules, concluding instead:

> The Commission believes that the wide variety of alternative approaches to decoupling make it more efficient to address these issues in the context of specific utility proposals included in general rate case filings rather than through a generic rulemaking.[8]

Since the close of that rulemaking, the Commission has ruled on natural gas decoupling proposals in three additional proceedings. In Docket UG-060267, the Commission rejected PSE's request for a natural gas decoupling mechanism because its conservation program was already well-developed.[9] In Docket UG-060256, the Commission adopted, with modification, Cascade's decoupling pilot program.[10] And in Docket UG-060518, the Commission adopted, with modification, Avista's natural gas decoupling pilot program.[11] Avista's natural gas decoupling program has since been approved permanently.[12]

Last, and as discussed in more detail below, the Commission issued its Decoupling Policy Statement in Docket U-100522 in 2010.

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[6] *WUTC v. Puget Sound Energy, Inc.,* Dockets UE-060266 and UG-060267, Order 08 at ¶¶145-158 (January 5, 2007).
[7] *WUTC v. PacifiCorp,* Docket UE-050684, Order 05 at ¶¶ 103-110 (June 28, 2006).
[8] *Rulemaking to Review Natural Gas Decoupling,* Docket UG-050369, Notice of Withdrawal of Rulemaking (October 17, 2005).
[9] *WUTC v. Puget Sound Energy, Inc.,* Dockets UE-060266 and UG-060267, Order 08, ¶¶ 59-63 (January 5, 2007).
[10] *WUTC v. Cascade Natural Gas Corporation,* Docket UG-060256, Order 06, ¶¶ 67-85 (January 12, 2007).
[11] *WUTC v. Avista Utilities,* Docket UG-060518, Order 04, ¶¶ 1-49 (February 1, 2007).
[12] *WUTC v. Avista Utilities,* Dockets UE-090134, UG-090135 and UG-060518, Order 10, ¶¶ 236-309 (December 22, 2009).

B. The CSA and the Decoupling Policy Statement

Q. How does the Commission's Decoupling Policy Statement categorize the CSA?

A. The Decoupling Policy Statement categorizes the CSA as a hybrid of "limited decoupling" and an "incentive mechanism".

Q. How is the CSA like "limited decoupling"?

A. The Commission defines "limited decoupling" as a "lost margin recovery mechanism" that permits the utility to "recover lost margin due only to the conservation efforts of the utility."[13] The CSA does not rely on "lost margin", defined by the Commission as "a reduction in revenue during a rate-effective period due to a reduction in use, from the level of use determined using a modified historic test year in a general rate case."[14] Instead, to identify the reduction in use, the CSA substitutes the conservation savings estimates from the Company's conservation programs.

Q. Does that difference mean that the CSA is not a form of limited decoupling?

A. No. The CSA shares enough other characteristics of limited decoupling to be classified as a modified form of limited decoupling. It has a true-up mechanism, it attempts to capture only one cause of changes in use, and it has an earnings test.

[13] Decoupling Policy Statement at 8, ¶ 12, Item 1.
[14] Decoupling Policy Statement at 6, ¶ 9.

Q. How is the CSA like a "direct conservation incentive"?

A. The Decoupling Policy Statement describes a "direct conservation incentive" as a mechanism that encourages a company to exceed its electric conservation targets and to invest in additional gas conservation programs.[15] In fact, PSE's previous and current direct conservation incentives are explicitly mentioned.[16] These mechanisms, like the CSA, all rely on the conservation savings estimates to calculate a direct conservation incentive.

Q. Does PSE justify the CSA based on the Commission's Decoupling Policy Statement?

A. No. In fact, Mr. De Boer concludes that "none of the specific mechanisms discussed by the Commission meet PSE's needs." Exhibit No. __ (TAD-1T) at 10:15-16.

Q. Should PSE have attempted to justify the CSA based on the Commission's Decoupling Policy Statement?

A. Yes. In the Decoupling Policy Statement the Commission states it expects utilities "to propose limited decoupling or full decoupling mechanisms in the context of a general rate case" "*within the parameters* [of the Policy Statement]."[17]

Q. What information should PSE have provided under the Decoupling Policy Statement, but failed to provide?

[15] Decoupling Policy Statement at 21, ¶ 33. RCW 80.28.260(2) states that the Commission may adopt incentive rates of return or other policies to encourage investment in "additional" energy efficiency programs.
[16] Decoupling Policy Statement at 19, 20 ¶ 30.
[17] Decoupling Policy Statement at 23, ¶ 36 (emphasis added).

A. PSE should have: (1) provided an analysis of the CSA's impact on rate of return, (2) provided a discussion of offsets or found margin, (3) provided an explanation of the impact of weather on the mechanism, (4) described the incremental conservation to be achieved as a result of the CSA, and (5) demonstrated whether or not its conservation programs provide roughly comparable benefits to low-income rate-payers.

Q. Will the CSA affect the risk experienced by PSE if adopted?

A. Yes. If adopted, the CSA will reduce the risk of revenue decline feared by PSE. Exhibit No. __ (TAD-1T) at 5:1-3. Unlike a full decoupling mechanism, which may either increase or decrease a company's revenue, the CSA is designed to only increase revenue. Mr. Piliaris suggests that PSE "would have 'added to net income or created a cash buffer' in the absence of conservation." Exhibit No. __ (JAP-1T) at 27:3-4. The CSA will certainly add to net income.

Q. When did the Commission issue the Decoupling Policy Statement?

A. The Commission issued the Decoupling Policy Statement on November 4, 2010.

Q. Was PSE a party to the docket in which the Commission developed the Decoupling Policy Statement?

A. Yes. PSE participated fully in that docket. Exhibit No. __ (TAD-1T) at 10:2-4.

Q. Is there any reason why PSE could not address the CSA in the context of the Decoupling Policy Statement?

A. No. The Decoupling Policy Statement was issued approximately seven months before the Company filed its general rate case in these dockets. I can see no reason why the Company failed to address the parameters of Decoupling Policy Statement, as the Commission directed.

Q. Should the Commission reject the CSA given the Company's failure to abide by the Commission's threshold requirement to address the proposal in the context of the Decoupling Policy Statement?

A. Yes.

Q. As another threshold matter, did the Decoupling Policy Statement approve "limited decoupling" mechanisms for electric utilities?

A. No. While the Commission approved *full* decoupling for electric utilities, the Commission stated it would "propose to confine the limited decoupling option to natural gas utilities."[18]

Q. Should the Commission reject the CSA for the Company's electric operations on that basis?

A. Yes.

[18] Decoupling Policy Statement at 13, ¶ 19.

Q. Should the Commission elect to evaluate the reasons it gave for confining limited decoupling to natural gas operations, do those reasons justify the Commission rejecting the CSA in this case?

A. Yes.

C. Use Per Customer Analysis

Q. What reasons did the Commission give for confining limited decoupling to natural gas operations?

A. The Commission gave three reasons. The "[F]irst, and most important" reason is that limited decoupling "only makes sense when sales to existing customers are declining."[19]

Q. Does the Commission expect limited decoupling to account for only one cause of declining use?

A. Yes. The Commission's Decoupling Policy Statement says "limited decoupling [...] would permit the utility [...] to recover lost margin *due only* to the conservation efforts of the utility including educational and informational efforts."[20] Limited decoupling for gas or electricity service would be very difficult to design for PSE since, while sales have declined, there appear to be other causes for the decline in use.

[19] Decoupling Policy Statement at 13, ¶ 20.
[20] Decoupling Policy Statement at 8, ¶ 12. (*Emphasis added).*

Q. Have you prepared a table showing a decline in electric use per customer for PSE?

A. Yes. The table below provides annual average megawatt-hour use per customer from 2001 to 2010. This information was provided by PSE in its annual reports.

Average Use Per Electric Customer in Megawatt-hours[21]

	Residential	Commercial and Industrial	Public Street & Highway Lighting	Resale	System MWh per Customer
2001	11	99	44	841335	31
2002	12	87	43	674606	28
2003	12	86	42	575365	27
2004	11	86	40	302420	24
2005	12	87	41	350841	25
2006	12	90	27	499627	26
2007	12	89	30	492263	26
2008	12	89	29	347906	25
2009	12	87	28	681640	28
2010	11	83	27	705965	25

As the table shows, the system has shown steady decline in average use per customer, declining 2.4 percent per year from about 31 megawatt-hours per year in 2001 to about 25 megawatt-hours per year in 2010.

Q. Is Company-sponsored conservation the only cause for these declines in electricity use per customer?

A. No. The current economic slowdown is likely having an effect. In fact, during the 2010 test period, PSE showed a customer loss of 20 percent on certain industrial

[21] http://www.utc.wa.gov/regulatedIndustries/utilities/energy/Pages/financialDataForElectricCcompanies.aspx

schedules, a fact that could be attributed easily to the economic slowdown.[22] Certainly it could not be attributed exclusively to conservation.

Q. Are PSE's sales to natural gas customers declining?

A. Yes. However, large industrial use per customer has only been declining since about 2007, while the number of large natural gas customers on the system has been steadily declining 1.4 percent from year to year since 1999. The reasons for this are not clear. Large customers may have left the system to be transportation-only customers. Regardless of the reason, it skews the system-level analysis.

Q. Have you prepared a table showing gas use per customer for PSE?

A. Yes. The table below provides annual average therm use per customer from 2001 to 2010. This information was provided by PSE in its annual reports.

Average Use Per Gas Customer in Therms[23]

Year	Residential Sales	Commercial Sales	Industrial Sales	Transportation of Gas for Others	System Therms per Customer
2001	902	6365	20436	1680320	1736
2002	886	6195	18297	1703702	1705
2003	857	5662	17374	1563414	1618
2004	808	5516	18161	1563113	1537
2005	810	5445	18649	1538788	1514
2006	821	5658	19588	1691535	1539
2007	835	5773	19317	1722113	1557
2008	865	6142	15369	1701359	1597
2009	849	5590	13697	1501739	1520
2010	749	5326	13699	1352075	1395

[22] PSE Response to Staff Data Request 96, Attachment A.
[23] http://www.utc.wa.gov/regulatedIndustries/utilities/energy/Pages/financialDataForGasCompanies.aspx

As the table shows, the system has shown steady decline in average use per customer, declining 2.4 percent per year from about 1736 therms per year in 2001 to about 1395 therms per year in 2010.

Q. Is Company-sponsored conservation the only cause for these declines in natural gas use per customer?

A. Probably not. These declines can be attributed to technological improvements in energy codes, customer response to increasing natural gas prices (elasticity), and Company-sponsored demand-side management programs. Natural replacement of failed equipment results in energy use reductions because new equipment must meet new standards. Even when a customer buys a minimum efficiency appliance by today's standards, it is typically much better than what she is replacing. Today's building codes reduce energy intensity, or use per square foot, in new housing stock compared to old stock. Therefore, even though housing sizes have been increasing (2,400 square feet[24] for new stock versus 2250 square feet[25] for all stock), the improvement in energy intensity per square foot over time has probably contributed to the declining natural gas use per customer, and will probably continue to contribute to its decline.

Q. Are PSE's sales to existing customers different from PSE's sales to new customers?

[24] RLW Analytics, Inc., *Residential New Construction (Single and Multi-Family) Billing Analysis* (Portland, OR: Northwest Energy Efficiency Alliance), http://www.nwalliance.org (October 11, 2007).
[25] Calculated from Puget Sound Energy's conservation potential assessment, available in Docket UE-080949.

A. It appears so. High-level-analysis of 2010 electric use per customer shows that residential electric customers added to the system between 2000 and 2009 used about 12 percent less energy than customers on the system before 2000.[26] Because it was not possible to weather-normalize subgroups of customers within rate classes, Staff did not attempt to interpret this relationship beyond the simple identification of its existence. Further analysis by the Company to take into account differences between existing and new customers would need to be performed before the Commission could accept any decoupling mechanism, including the CSA. A similar analysis of 2010 gas use per customer showed that residential gas customers added to the system between 2000 and 2009 used about 8 percent less energy than customers on the system before 2000.

Q. What do you conclude about the CSA with respect to the Commission's policy that limited decoupling should be available only for declining sales caused by company conservation programs?

A. I conclude that PSE's decline in electricity and gas sales is not related solely to its conservation programs. Therefore, even on the merits, the CSA for both electric and gas operations should be rejected.

[26] PSE Response to Staff Data Request 95, Attachments A - C.

D. Offsetting Revenues for Electric Operations

Q. Please state and discuss the second reason the Commission gives in the Decoupling Policy Statement for confining limited decoupling to natural gas utilities.

A. The Commission's second reason to limit decoupling to natural gas utilities is that electric utilities enjoy the potential for offsetting revenues either through "enabling electricity sales" or "avoiding purchases".[27] For natural gas utilities, 100 percent of the costs of purchased gas and pipeline service are included in the purchased gas adjustment mechanism ("PGA"), so that any increased or decreased costs for gas are borne by ratepayers.

In contrast, for PSE's electric operations, under its Power Cost Adjustment mechanism ("PCA"), the Company retains up to $20 million of the benefit of avoided power costs or increased off-system sales revenues when power is freed up by lower customer use. PSE claims that it has a greater opportunity to recover its costs through retail sales than through sales in the market. Exhibit No. __ (TAD-1T) at 20:17-19.

Q. What is the Power Cost Adjustment mechanism?

A. The PCA is an accounting method used to record certain differences between actual net power supply costs and the amount included in base retail rates for Washington

[27] Decoupling Policy Statement at 15, ¶ 23.

customers, and to flow a portion of cost changes to consumers under certain circumstances.[28]

Q. How does the PCA work?

A. A base level of power supply costs is included in base rates in a general rate case. If actual power costs differ from the estimated amount above or below a deadband level, the difference is recorded in a deferral account. When the deferral amount exceeds $30 million, a customer surcharge or rebate is established.

The initial amount of power supply costs above or below the level in retail rates, which the Company either incurs the cost of, or receives the benefit from, is referred to as the "deadband". The annual deadband amount is currently $20.0 million. PSE will incur the cost of, or receive the benefit from, 100 percent of this initial power supply cost variance. If power cost deviations exceed this deadband, then customers share in the cost or benefit.

PSE is at risk for all variances within the initial $20.0 million deadband amount and shares annual power supply cost variances above $20.0 million with its customers according to a graduated scale. Exhibit No. __ (SA-1CT) at 5.

Q. How are the effects of energy efficiency incorporated into the PCA?

A. They are not. The small deviations in customer use caused by energy efficiency efforts, whether or not supported by the utility's energy efficiency programs, are not expected, by themselves, to result in deviations outside the deadband. Therefore, without some treatment of the avoided power costs due to energy efficiency, a

[28] PSE 2010/Q4 FERC Form No. 1, pages 123.4-123.5, April 15, 2011.

mechanism like the CSA would essentially allow PSE to retain both the foregone rate revenue (through decoupling) and the avoided power cost (through lower purchases, lower fuel consumption, or greater off-system sales).

Q. What do you conclude about the CSA with respect to the Commission's policy that limited decoupling should account for offsetting revenues?

A. I conclude that PSE's current PCA does not account for offsetting revenues. Therefore, even on the merits, the CSA for electric operations should be rejected.

E. Incentive to Invest in Additional Conservation

Q. Please state and discuss the third reason the Commission gives in Decoupling Policy Statement for confining limited decoupling to natural gas utilities.

A. The Commission's third reason is that, because the Energy Independence Act ("EIA") provides "ample incentive" for electric utilities to acquire cost-effective conservation, there is "less of a need to provide an incentive to electric utilities" via limited decoupling.[29] Even before the EIA, PSE had an obligation to acquire feasible, cost-effective conservation under the Commission's Integrated Resource Planning ("IRP") rules, which require both electric and gas utilities, such as PSE, to plan to acquire the lowest cost resources, including conservation. WAC 480-90-238 and WAC 480-100-238.

[29] Decoupling Policy Statement at 15, ¶ 24.

The important point is that the CSA would be redundant to the incentives already in place for PSE to acquire cost-effective conservation. PSE has had ample incentives to do so in rule and/or statute for many years.

Q. Is the CSA inconsistent with the Commission's Decoupling Policy Statement that additional incentives are less necessary for electric utilities?

A. Yes. The design of the CSA actually creates an incentive to pursue conservation in several ways. First, the design is a modified form of "limited decoupling", which, because it typically results in only positive rate adjustments, is certainly a positive effect on the revenue received by the Company. In addition, because the calculation of the CSA relies directly on the conservation savings estimates, the Company can directly increase the amount of money it recovers under the CSA by increasing its conservation savings. In the Decoupling Policy Statement, the Commission is quite clear that direct conservation incentives should only encourage additional investment in conservation.[30]

Q. What do you conclude about the CSA with respect to the Commission's policy that limited decoupling should only encourage additional investment in conservation?

A. I conclude that PSE's proposed CSA would reward PSE for meeting its conservation target, rather than rewarding it for only incremental conservation above the target. Therefore, even on the merits, the CSA for both electric and gas operations should be rejected.

[30] Decoupling Policy Statement at 21, ¶ 33.

F. Known and Measurable Conservation Effects Not Present

Q. Are there other problems with PSE's CSA proposal?

A. Yes. The Company's calculations of "mandated savings" due to PSE's energy efficiency programs referred to in Mr. Piliaris' testimony are not known and measurable. This is because the Company's calculations of the targets are based on savings estimates and conservation potential assessments that are generally intended only for planning purposes. This has been acceptable for planning because the cost-effectiveness benefit-to-cost ratio for PSE's programs has typically been well above 1.0. This provides some comfort that the estimates PSE uses for program planning are conservative enough to conclude that particular measures are, on average, contributing savings to the program, even though we may not know exactly how much energy was saved from the installation of an individual measure.

In other words, the Company's CSA adjustment is calculated with a precision that is not justified by the underlying data.

Q. Does Staff customarily review the Company's energy efficiency programs and tariffs on an ongoing basis?

A. Yes. Among other things, Staff reviews the tariffs when they are proposed, and Staff reviews the costs PSE incurs for these programs when the Company seeks to recover to those costs in rates.

Q. Do these Staff reviews provide sufficient certainty to support the Company's calculation of the CSA?

A. No. When Staff reviews PSE tariff filings for recovery of energy efficiency program costs, Staff focuses on program delivery, and whether the Company has met its budget in terms of program participation. Staff does not attempt to calculate the energy savings actually achieved by each of those programs.[31]

Q. Are the Company's estimates of energy savings rigorous enough for ratemaking purposes?

A. No. The Company's estimates of energy savings are not rigorous enough for rate making. Each individual installation of energy efficient equipment has specific energy savings estimates associated with it. The specific energy savings estimates come from several places (the Regional Technical Forum and engineering calculations, among others) and the estimates are routinely used for program planning and for calculations of the cost-effectiveness of particular measures. However, the estimates do not represent what actually happened after the installation itself.

Q. Isn't it correct, though, that conservation does reduce electricity consumption?

A. Yes. Conservation savings are made up of thousands of individual installations of energy efficient equipment for which the Company pays customers. These individual installations occur over the course of a year. The problem, however, is

[31] See Staff Open Meeting Memo, Docket UG-110790, June 30, 2011. http://www.wutc.wa.gov/rms2.nsf/177d98baa5918c7388256a550064a61e/49bf6f43e61f6e28882578bc007c1bbd!OpenDocument

measuring the savings with enough accuracy to be appropriate for ratemaking purposes.

Q. Could significant investment in conservation have an eventual effect?

A. Yes. There will always be a probability that significant investment in conservation will reduce Company revenues because a portion of fixed costs are recovered in the use charge. However, this would happen over time. Frequent rate cases, with rates reset based on most recent load levels, have been the Company's response to this problem.

Q. How should the actual energy savings from these energy efficiency programs be determined to support a CSA-type adjustment?

A. In order to have savings values that meet the "known and measurable" standard for ratemaking, the Company must have its energy savings independently verified and evaluated. This must include statistically significant post-installation analysis.

Q. Is the CSA necessary?

A. No. Annualizing adjustments should capture significant changes in use patterns of existing customers. The calculated changes in use patterns from energy efficiency only changed the electric revenue requirement 0.21 percent, or $4.5 million, and the gas revenue requirement 0.09 percent, or $0.9 million.[32]

[32] This calculation was performed by multiplying the proportion of total use reduction from the conservation savings estimates presented in Exhibits JAP-11 and JAP-12 and applying it to the rate case revenue and expenses presented in Exhibit JHS-4 and Exhibit MSJ-03.

Q. Please summarize your testimony on the CSA.

A. The Company's case for the CSA is insufficient, and the Commission should therefore reject the CSA. First, PSE failed to satisfy the Commission's requirement that the Company address limited decoupling proposals in the context of the Commission's Decoupling Policy Statement.

Should the Commission see the need to go further, it should reject the CSA because the CSA is limited decoupling applied to electric operations, and as a matter of Commission policy, limited decoupling is confined to natural gas operations. Should the Commission evaluate the reasons underlying that Commission policy, each such reason applies to the CSA and supports rejection of the CSA. Finally, the Commission should reject the CSA because the Company has not adequately supported the calculation of the adjustment.

Q. Does the Commission offer alternatives to decoupling in its Decoupling Policy Statement?

A. Yes. At page 21, paragraph 33 of the Decoupling Policy Statement, the Commission states that companies may file for direct conservation incentives along with their conservation target filings. PSE has chosen not to take advantage of this opportunity as of this date.

At paragraph 34, the Commission also specifically mentions attrition adjustments as another possible alternative to decoupling that it would consider. Staff witness Mr. Elgin provides an extensive discussion of attrition adjustments. He

also describes an expedited process as an alternative for the Company to address regulatory lag.

Q. Does this conclude your testimony?

A. Yes.