

Exhibit No. ____ (CEP-1T)

Revisions of July 19, 2004

1 **PUGET SOUND ENERGY, INC.**

2 **PREFILED DIRECT TESTIMONY OF COLLEEN E. PAULSON**

3
4 **I. INTRODUCTION**

5 **Q: Please state your name and business address.**

6 A: My name is Colleen E. Paulson and my business address is 10885 N.E. Fourth
7 Street, Bellevue, Washington 98004. I am employed by Puget Sound Energy
8 ("PSE") as a-Manager of Pricing & Cost of Service.

9 **Q. Have you prepared an exhibit describing your education, relevant**
10 **employment experience, and other professional qualifications?**

11 A. Yes, I have. It is Exhibit No. ___(CEP-2).

12 **II. PURPOSE**

13 **Q: What are the topics you will be covering in your testimony?**

14 A: I am sponsoring the Company's gas and electric cost of service studies. These two
15 studies translate the gas and electric revenue requirements into assignment of
16 revenues, operating expenses, and ratebase at the customer class level. These
17 studies follow the traditional approach of separating costs by major utility
18 functions (cost functionalization), classification of the costs (i.e. throughput,
19 capacity, customer) and allocation of the costs to the customer rate classes.

20 Where possible, I used accounting records and special studies to directly allocate

1 costs rather than ~~use~~using allocation factors to separately split up joint costs. The
2 cost of service studies are used by Mr. James Heidell as a guide to the Company's
3 rate spread proposal. My testimony first addresses natural gas cost of service and
4 then electric cost of service.

5 III. NATURAL GAS COST OF SERVICE STUDY

6 **Q: Please explain the underlying considerations of the cost of service study.**

7 A: The study is based on the previous cost of service methodology accepted by the
8 Commission for Washington Natural Gas Company (WNG) in Docket No. UG-
9 940814, which was also applied in the settlement of PSE's last general rate case,
10 Docket No. UG-011571. The Company's focus in this case was not on
11 developing or arguing for different methodologies. Instead, the focus was on
12 improving cost assignment through attention to the direct assignment of costs
13 rather than joint allocation of costs.

14 **Q: Are there any other changes the Company implemented in preparing the cost
15 of service study?**

16 A: Yes, PSE developed a cost of service model to standardize its electric and gas cost
17 of service analyses and reports. The model was benchmarked against the model
18 used in the last rate case to ensure that any changes in results are the outcome of
19 the model inputs and not the new model.

20 **Q: What are the load characteristics of the rate classes in the cost of service**

1 and commodity cost components. This classification is based on the Company's
2 system annual load factor derived on a peak-day basis. The peak day is determined
3 by the average of the Heating Degree-Days (HDDs) of the observed five highest
4 peaks the Company experienced during ~~December-February~~ 2002 through January
5 2004. This method results in a peak day demand for the Company of
6 approximately 6,962,075 therms based on a 38 HDD level.

7 **Q: Under the Company's proposed method, what were the weather conditions**
8 **actually experienced for the five highest peaks in the last three years?**

9 A: The following table presents this information:

Date	Average Temperature	HDDs
January 5, 2004	24°F	42
January 4, 2004	23°F	41
January 3, 2004	29°F	35
January 6, 2004	26°F	38
December 29, 2003	32°F	32
Average	27°F	38

10

11 **Q: Please describe how investment in distribution mains was classified and**
12 **allocated.**

13 A: The Company started with an analysis of facilities used to serve its largest

14 customers - Rate Schedules 85, 87, 57 and the special contract customers. The
Prefiled Direct Testimony of Colleen E. Paulson

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1 study identified the dedicated plant investment that could be directly assigned to
2 these customers. Each customer's location on the Company's distribution system
3 was determined and plant investment data was compiled to develop the cost of the
4 distribution mains dedicated to serve the customer. All mains were traced
5 upstream to a source gate station. Since, the study results indicated that most
6 commercial and industrial customers are served off of distribution mains
7 four inches or larger in diameter, the Company disaggregates the distribution main
8 investment into two subgroups; mains four inches or greater and mains less than
9 four inches in diameter. The costs of the dedicated mains were then directly
10 assigned to the largest customer group. The remaining plant balance for mains
11 four inches or greater are classified between demand and commodity on a system
12 load factor basis and allocated to Rate Schedules 31, 41 and 86 all customers
13 except Rate Schedules 85, 87, 57 and the special contract customers based on
14 peak day demand and commodity throughput allocation factors. Mains less than
15 4 inches in diameter are classified in the same manner and were also allocated to all
16 customers except Rate Schedules 85, 87, 57 and the special contract customers.

17 **Q: In conjunction with the above-described analysis of distribution mains, were**
18 **there other facilities identified which could be directly assigned to these**
19 **larger customers?**

20 A: Yes, the cost of service lines were directly assigned to the Rate Schedules 85, 87,
21 57 and the special contract customers.

1 Q: Please describe the special studies you conducted for purposes of allocating
2 other distribution plant investment.

1 **taxes to each customer class?**

2 A: Administrative and general expenses were allocated on an specific-account-by-
3 account basis and by the following expense-category factors: (1) labor; (2) plant;
4 and (3) throughput; (4) operations and maintenance; and (5) combined. Operating
5 income before interest expenses and Federal income taxes (EBIT) was determined
6 for each class. Current and deferred income taxes were allocated to each class
7 based on its relative EBIT to the total EBIT.

8 **Q: Please summarize the results of the cost of service study filed by the**
9 **Company.**

10 A: Referring to the Summary of Natural Gas Cost Study Results, Exhibit No. ____
11 (CEP-3), the following results at present rates are indicated:

Class	Parity Ratio	Rate of Return
Residential 23/53/16	95%	5.68%
C & I Heating 31/36/61/51	119%	9.18%
C & I - 41	131%	10.68%
Rate Schedule 85	80%	3.62%
Rate Schedule 86	98%	6.39%
Rate Schedule 87	51%	-2.25%
Rate Schedule 57	171%	15.97%
Special Transport Contracts 99/199/299	77%	2.62%
CNG Service 50	9%	-41.15%

Company	100%	6.38%
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2 **Q: Have you prepared a more detailed analysis of the Company's customer-**
3 **related costs of providing service?**

4 A: Yes, I have. Included in Exhibit No. ___ (CEP-4) at pages ~~10-11-12~~ are details of
5 the cost-based customer charge. Customer-related revenue requirements include
6 operating expenses such as meter reading, customer accounting and billing,
7 customer service, and certain distribution operating and maintenance costs, as well
8 as related administrative and general (A&G) expenses. The study also calculates
9 the return on net ratebase allowed on the Company's meters, services, and other
10 distribution and general plant investment.

11 **IV. RESTATING AND PROFORMA ADJUSTMENTS TO**
12 **NATURAL GAS CLASS REVENUES**

13 **Q: Have you prepared exhibits to summarize the calculation of proforma class**
14 **revenues?**

15 A: Yes, Exhibit No. ___ (CEP-6) details the restating adjustments made outside of
16 the Gas Proforma Revenue Model. Exhibit No. ___ (CEP-7) shows the restating
17 adjustments calculated in the model, specifically: (1) the elimination of adjusting
18 schedule revenues and municipal taxes, and certain propane sales, (2) normal
19 degree days; (3) test year base rate levels; and (4) current gas cost levels as

1 approved by the Commission effective October 1, 2003, in the Company's last
2 PGA filing.

3 **Q: Would you please describe the adjustments in Exhibit No. ___ (CEP-7)?**

4 A: The adjustments remove municipal taxes, propane sales and associated revenues
5 (pursuant to the Commission's Fourth Supplemental Order in Docket No. UG-
6 920840), as well as Rate Schedules 106, 120, 129 and 107.

7 The second part of the adjustment reflects the difference between the actual rates
8 and the base rates in effect during the test year. Utilizing the monthly sales and
9 transportation volumes, and pricing them at the test year monthly base rate, results
10 in revenues as shown in column (aa) of Exhibit No. ___ (CEP-7), page 3 of 5.
11 The restating base rate adjustment of (\$4,396,452) is recorded in column (ad),
12 page 3, line 25.

13 **Q: Please summarize the weather adjustment?**

14 A: This adjustment is made to reflect consumption expected under normal weather
15 conditions. The Company calculated normal weather by using the Commission-
16 approved approach of calculating an 18-year moving average of past annual
17 heating degree days ("HDDs"). The moving average is calculated using a 20-year
18 historical period with the highest and lowest years excluded (Docket
19 No. UG-920840, Fourth Supplemental Order, p. 17). This analysis results in a
20 definition of normal weather for the test period of 4,690 HDDs. Actual heating
21 degree days for the test period were 4,454 HDDs. Annual consumption, adjusted

1 The remainder of the system is further separated into two categories based upon
2 the FERC seven factor test. The application of the seven factor test was reviewed
3 by the Commission in UE-010010. The two categories are referred to as bulk
4 transmission and sub-transmission for the purpose of this cost of service study. I
5 have not adopted the FERC classification of "distribution" since I have reserved
6 that term for the retail power distribution system that existed prior to the
7 Company's reclassification filing with the Commission. Both the bulk and sub-
8 transmission systems are classified as demand and energy in accordance with the
9 peak credit method and allocated to the customer classes based upon the 200 CP
10 method. ~~However, Rate Schedule 448 and 449 customers are excluded from the~~
11 ~~200 CP calculation for allocation of bulk transmission costs.~~

12 **D. Distribution Cost Allocation**

13 **Q. How were distribution plant costs allocated?**

14 A. The Company directly allocated meter and line transformer costs using separate
15 allocators derived from an analysis of installed meters and line transformers used
16 by each class. The current equipment inventory was directly assigned to each class
17 and the equipment was priced at current costs. The ratios of each class'
18 contribution to the total cost were then applied to embedded costs to construct
19 forward-looking cost allocation. The cost of underground circuits, overhead
20 circuits, and substations were assigned based upon allocation factors constructed
21 from each class' contribution to the feeder's and substation's peak and the length