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May 30, 2008

**VIA FEDERAL EXPRESS  
AND ELECTRONIC FILING**

Carol Washburn  
Executive Secretary  
Washington Utilities & Transportation  
Commission  
1300 S. Evergreen Park Drive, S.W.  
P.O. Box 47250  
Olympia, WA 98504-7250

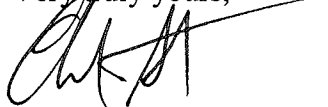
Re: Washington Utilities & Transportation Commission vs. Puget Sound Energy, Inc.  
**Docket No. UG-072301**

Dear Ms. Washburn:

Enclosed please find an original and nineteen copies of the **Prefiled Direct Testimony of Donald W. Schoenbeck on behalf of the Northwest Industrial Gas Users** in the above-referenced docket. Also, enclosed are two CD's containing the Workpapers of Donald W. Schoenbeck. One CD contains the public version of the Workpapers and the other contains the Confidential version of the Workpapers.

An electronic submission of the testimony (without the Workpapers) will be sent to the Records Center on May 30, 2008, as well as to all parties listed on the current service list.

Very truly yours,



Chad M. Stokes

CMS:tr

Enclosure(s)

cc: Official Service List

**EXHIBIT NO. \_\_\_(DWS-1T)  
DOCKET NOS. UG-072301  
2007 PSE GENERAL RATE CASE  
WITNESS: Donald W. Schoenbeck**

**BEFORE THE  
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,**

**Complainant,**

**v.**

**PUGET SOUND ENERGY, INC.,**

**Respondent.**

**Docket No. UG-072301**

**PREFILED DIRECT TESTIMONY OF  
DONALD W. SCHOENBECK  
ON BEHALF OF  
NORTHWEST INDUSTRIAL GAS USERS**

**May 30, 2008**

**PUGET SOUND ENERGY, INC.**

**PREFILED DIRECT TESTIMONY OF  
DONALD W. SCHOENBECK**

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**PUGET SOUND ENERGY, INC.**

**PREFILED DIRECT TESTIMONY OF  
DONALD W. SCHOENBECK**

**I. INTRODUCTION AND SUMMARY**

**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. My name is Donald W. Schoenbeck. I am a member of Regulatory & Cogeneration Services, Inc. (“RCS”), a utility rate and economic consulting firm. My business address is 900 Washington Street, Suite 780, Vancouver, WA 98660.

**Q. PLEASE DESCRIBE YOUR BACKGROUND AND EXPERIENCE.**

A. I’ve been involved in the electric and gas utility industries for over 35 years. For the majority of this time, I have provided consulting services for large industrial customers addressing regulatory and contractual matters. I have appeared before the Washington Utilities and Transportation Commission (“Commission”) on many occasions, including several proceedings regarding the establishment of charges for customers of Puget Sound Energy (“Company”). A further description of my educational background and work experience can be found in the testimony I am filing today on behalf of Industrial Customers of Northwest Utilities in this proceeding. *See* ICNU Prefiled Direct Testimony of Don W. Schoenbeck, Exhibit No. \_\_\_\_ (DWS-2).

1 **Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

2 A. I am testifying on behalf of the Northwest Industrial Gas Users (“NWIGU”).

3 NWIGU is a trade association whose members are large industrial customers  
4 served by gas utilities throughout the Pacific Northwest, including Puget Sound  
5 Energy.

6 **Q. WHAT TOPICS WILL YOUR TESTIMONY ADDRESS?**

7 A. I will discuss PSE’s allocation of distribution mains, rate spread and industrial  
8 rate design matters. My testimony will not address revenue requirement issues at  
9 this time. This silence should not be construed as acceptance by NWIGU of the  
10 Company’s proposed increase amount. NWIGU reserves the right to address  
11 revenue requirement matters at the hearing and in its briefs.

12 **Q. PLEASE BRIEFLY SUMMARIZE YOUR FINDINGS AND**  
13 **RECOMMENDATIONS ADDRESSED IN THIS TESTIMONY.**

14 A. In determining the cost of serving each customer class of a gas distribution  
15 company, one of the most critical factors is the classification and allocation of  
16 distribution main investment. The Company’s allocation method in this case does  
17 not segment mains by size or rely solely on a direct assignment of mains to large  
18 users as it has done in past proceedings. As a result, the Company’s cost study  
19 assigns far too much main investment to Schedule 85, 87, 57 and contract  
20 customers (“Large Users”). NWIGU recommends that main investment be  
21 allocated to large users in the same manner as the Company did in the 2004  
22 general rate case. In that proceeding, PSE directly assigned distribution main

1 investment to Large Users using a flow analysis and an average February  
2 temperature. The following table compares the resulting revenue to cost ratio  
3 (“parity ratio”) for select customer classes from the 2004 direct assignment  
4 method for assigning main investment to Large Users with the Company’s flawed  
5 approach in this proceeding. Both studies reflect the Company’s customer  
6 migration proposal from phasing out Schedule 57.

7 Parity Ratio Comparison

8		PSE	NWIGU
9	Class	Study	Study
10	Residential	1.01	1.01
11	C&I (31,61)	0.89	0.88
12	Schedule 41	1.56	1.50
13	Schedule 85	1.72	1.54
14	Schedule 86	1.87	1.78
15	Schedule 87	0.92	1.25
16	Sch 57 & Contracts	1.22	1.34
17	Rentals	0.69	0.69
18	Total:	1.00	1.00

19  
20 The Company’s rate spread attempts to move certain customer classes  
21 closer to a cost-based rate level. While NWIGU appreciates the Company’s  
22 acknowledgement of the current rate disparities, the Company’s proposal misses  
23 its mark particularly with regard to the rental class. The NWIGU cost study  
24 should be used to determine rate spread in this proceeding. The parity ratios from  
25 the NWIGU study indicate the small commercial and industrial sales rate  
26 schedules 31 and 61, and the rental schedules, should receive an above average  
27 margin increase. The residential class should receive an average increase and the  
28 remaining schedules should be assigned a below average increase, or a decrease.

1 The following table summarizes and compares the NWIGU rate spread  
 2 recommendation with the Company's proposal.

3 Rate Spread Comparison

Class	PSE Proposal		NWIGU Recommendation		Margin Difference
	Change in Margin	Margin Increase	Change in Margin	Margin Increase	
Residential	\$39,565	17.5%	\$38,914	17.2%	-\$651
C&I (31,61)	\$16,547	25.3%	\$16,762	25.6%	\$215
Schedule 41	\$0	0.0%	\$0	0.0%	\$0
CNG (50)	\$5	17.9%	\$7	25.6%	\$2
Schedule 85	(\$0)	0.0%	\$0	0.0%	\$0
Schedule 86	(\$309)	-8.7%	-\$309	-8.7%	\$0
Schedule 87	\$1,272	21.9%	\$496	8.5%	-\$776
Schedule 57	\$571	24.6%	\$198	8.5%	-\$372
Rentals	\$414	5.3%	\$1,997	25.6%	\$1,583
Total:	\$58,065	17.1%	\$58,065	17.1%	\$0

18 The Company's large customer rate design proposals in this case include  
 19 phasing out the single transportation tariff (Schedule 57) by the end of 2012. The  
 20 Company's proposal is to offer transportation service under its various and  
 21 otherwise applicable sale tariffs. Under the proposal, most of the existing  
 22 transportation customers would migrate to either Schedule 85 or 87. NWIGU  
 23 would support the complete elimination of Schedule 57 *if and only if* the terms  
 24 and conditions of service under Schedule 57 are fully incorporated into Schedules  
 25 85 and 87. That is, the alternate fuel requirement, minimum monthly volumetric  
 26 requirement and fuel exclusivity provisions must be deleted from the sales tariffs.  
 27 If these restrictions are not eliminated, NWIGU recommends retaining Schedule  
 28 57; it should not be phased out. In addition, the Company is proposing to increase  
 29 the revenue it recovers from fixed tariff charges. NWIGU oppose any increase in  
 30 the fixed prices of the Company's Large User tariffs. The existing charges

1 provide a substantial amount of fixed revenue. The margin increase assigned to  
2 Schedules 85, 87 and 57 (if 57 is to be continued) should be recovered by  
3 increasing the volumetric charges.

4 **II. ALLOCATION OF DISTRIBUTION MAIN COSTS**

5 **Q. HAS THE COMPANY PREPARED A COST-OF-SERVICE STUDY FOR**  
6 **THIS PROCEEDING?**

7 A. Yes. As it has done in the last several proceedings, the Company has submitted  
8 two cost studies in its prefiled exhibits. One study includes gas costs (see JKP-6)  
9 while the second study excludes gas costs (see JKP-5). Both these studies have  
10 most of the existing Schedule 57 customers migrated to the otherwise applicable  
11 sales tariff. The Company has combined the few remaining Schedule 57  
12 customers with the contract class in these studies. Also, in response to requests  
13 from many parties, the Company prepared additional cost studies. Attached as  
14 Exhibit No. \_\_\_ (DWS-3) are the summaries from two of these studies, both of  
15 which exclude gas costs. As this case is addressing margin or non-gas costs, all  
16 cost-of-service results presented in the remainder of my testimony will refer to  
17 cost studies that have gas costs excluded.

18 Exhibit No. \_\_\_ (DWS-3), page 1, shows the cost of service results under  
19 the Company's allocation methods where the existing customer classifications are  
20 retained. Exhibit No. \_\_\_ (DWS-3), page 2, shows the cost-of-service results  
21 where the Company segregated sales and transportation service under its  
22 migration proposal for Schedule 85 and 87. These models were most helpful to



1 NWIGU in evaluating the Company's proposal to phase out Schedule 57 as it  
2 allowed for a "before" and "after" comparison by sub-class.

3 **Q. IN PERFORMING THESE COST STUDIES, DID PSE ALLOCATE**  
4 **COSTS IN THE SAME MANNER AS THE LAST PROCEEDING?**

5 A. No. The Company used many of the same approaches for classifying and  
6 allocating its costs. However, there was a critical departure from past practice  
7 with regard to the allocation of distribution mains to large users. For many years,  
8 this Commission has recognized the need to segregate main investment by size in  
9 recognition of the fact that many large users simply can not be served through  
10 mains smaller than 4 inches in diameter. PSE has followed this method in the  
11 cost of service studies it has presented to the Commission in the last several  
12 proceedings. However, in this instant docket, the Company has not segregated  
13 mains by size. This uncalled for departure from past practice is very  
14 disappointing as the classification and allocation of distribution main costs is one  
15 of the most critical aspects of any gas cost-of-service study.

16 **Q. HOW DID PSE CLASSIFY AND ALLOCATE DISTRIBUTION MAIN**  
17 **INVESTMENT IN THIS PROCEEDING?**

18 A. The Company started by classifying—or dividing-- the total distribution main  
19 investment into demand-related and commodity-related portions based upon a  
20 system load factor of 33%. As the Company has over \$1.0 billion of distribution  
21 main investment, \$692.7 million was classified as being demand related and the  
22 remaining \$340.5 million was considered commodity-related. Next the Company  
23 identified the distribution mains used to serve the Large Users using a gas flow

1 model and assuming design day weather conditions. The design day weather  
2 specification was most critical as it meant all interruptible customers were in fact  
3 interrupted leaving the flow analysis to identify just \$11.1 million of main  
4 investment to serve the customers on these schedules. This was the only portion  
5 of the demand-related main investment assigned to these customers. The  
6 remaining demand-related investment of \$681.6 million was allocated using a  
7 design day peak factor of all other classes. The commodity related investment  
8 was allocated based upon either annual throughput or the minimum monthly  
9 volume (times 12) for the Large Users. The use of the “annual” minimum volume  
10 for the Large Users was in recognition of the lower quality of service these  
11 customers receive. The commodity-related main investment assigned to these  
12 customers was \$58.9 million. In toto, the Company’s approach results in the  
13 Large Users being assigned almost \$70 million of main investment. A summary  
14 of the Company’s main allocation method is attached as Exhibit No. \_\_\_ (DWS-  
15 4), page 1.

16 **Q. IS THIS AN APPROPRIATE METHOD OF ASSIGNING MAIN**  
17 **INVESTMENT TO LARGE USERS?**

18 A. No. It can be easily shown that the amount of main investment assigned to large  
19 users under this approach is too high. As I noted earlier, the Large Users are  
20 primarily served through mains that are at least 4 inches in diameter. The  
21 following table shows that only about 6% of the total annual throughput delivered  
22 to Schedule 85, 87 and 57 customers goes through mains that are less than 4

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inches in diameter.

Delivery Comparison

	Annual
< 4 Inch Volume	Therms
Schedule 85	8,208,825
Schedule 87	0
Schedule 57	5,419,988
Total:	13,628,813

Total Volume: 227,018,740

<4 Inch Percentage: 6.0%

However, a substantial portion of PSE’s main investment--\$470 million or 44.4%--is for mains with a diameter less than 4 inches as shown by the following table.

PSE Main Investment by Size (\$Millions)

Main Diameter	Investment	Percent	Accumulated Percent
<2	\$231.2	21.9%	21.9%
2	\$235.0	22.2%	44.1%
3	\$3.4	0.3%	44.4%
4-5	\$145.6	13.8%	58.1%
6	\$154.8	14.6%	72.8%
8-10	\$89.7	8.5%	81.3%
12	\$92.3	8.7%	90.0%
14+	\$105.9	10.0%	100.0%
Total:	\$1,058.0	100.0%	

PSE’s allocation approach has implicitly allocated a substantial portion of these smaller main costs to the Large Users. This can be illustrated by first segregating PSE’s mains into those that are less than 4 inches in diameter and those that are greater than 4 inches in diameter. For the test period, the normalized volumes or throughput for the Large Users is 262 million therms. However, only about 13.6 million therms are delivered through mains less than 4 inches in diameter.

Applying PSE’s main classification and allocation method to the two groupings of

1 main investment assigns just \$45.5 million to the Large Users as summarized in  
 2 the following table and Exhibit No. \_\_\_\_ (DWS-4), page 2. This is \$24.4 million  
 3 less than the amount assigned under the Company’s “single size” main allocation.

4 Main Investment Allocation Comparison  
 5 PSE Method - \$ Millions

6	7	8	9	10
Class	PSE	Segmented	Delta	
	Allocation	Allocation		
8 Residential	\$668.1	\$684.0	\$15.8	
9 C&I (31,36,51,61)	\$243.9	\$250.0	\$6.1	
10 Schedule 41	\$44.5	\$46.5	\$2.0	
11 Schedule 85	\$16.7	\$11.5	-\$5.2	
12 Schedule 86	\$6.8	\$7.3	\$0.5	
13 Schedule 87	\$36.8	\$21.7	-\$15.2	
14 57 & Special Contracts	\$16.4	\$12.3	-\$4.1	
15 Subtotal Large Users:	\$69.9	\$45.5	-\$24.4	
16 CNG (50)	\$0.1	\$0.1	\$0.0	
17 Total:	\$1,033.3	\$1,033.3	\$0.0	

18 **Q. ARE YOU RECOMMENDING THAT THIS METHOD BE USED FOR**  
 19 **ASSIGNING MAIN INVESTMENT TO LARGE USERS?**

20 A. No. While the above result corrects for the over allocation of smaller sized mains  
 21 to large customers, it does not recognize the fact that Large Users should be  
 22 assigned an above average allocation of the larger more costly mains. The  
 23 following tables illustrates how the installed cost of distribution mains  
 24 substantially increases with the diameter (and material—PE: plastic; ST: steel) of  
 25 the pipe.

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**2007 Per Unit Cost**

<b>Size/Type</b>	<b>\$/Ft</b>
1.25 PE	\$19.82
2 PE	\$18.49
.75-2.5ST	\$23.89
3 PE	\$42.07
4 PE	\$32.21
6 PE	\$66.11
8 PE	\$96.83
2 ST	\$26.90
4 ST	\$85.81
6 ST	\$71.46
8 ST	\$147.94
12 ST	\$202.13
14-16ST	\$151.82
20ST	\$272.51

A uniform allocation of larger mains based simply on demand or volumes would not take into account the non-uniform cost of larger mains.

**Q. CAN THIS COST CAUSATION FACTOR BE TAKEN INTO ACCOUNT?**

A. Yes. The direct assignment method used in the Company's 2004 general rate case recognized and accounted for this important factor. As in the current case, a gas flow model was used to identify the mains used to deliver the gas supply to the Large Users from the city gate to the customer's service. However, the gas flow was based on an average February winter day temperature of 41 degrees. Being much warmer than a design day peak temperature, there was full service to all interruptible customers under these conditions. Thus at this temperature, every main serving the Large Users---by size and type---is identified. The following table presents a summary of the equivalent feet identified under the Company's peak design day temperature in this proceeding with the mains identified under the 2004 average winter day method for the Large Users for the test year. As is

1 readily apparent from the table, the 2004 method identifies an additional 993,000  
 2 feet of main to deliver the average winter's day demand for all the Large Users.

**Comparison of Equivalent Feet of Main for  
 Large Users**

Diameter	Total System	Design Day	Avg Winer Day	AWD as % of System
<2	34,161,463	569	4,948	0.0%
2	17,902,792	26,641	210,096	1.2%
3	108,071	710	1,683	1.6%
4-5	8,753,942	80,925	319,909	3.7%
6	4,259,830	50,856	261,066	6.1%
8-10	1,351,305	40,551	159,592	11.8%
12	830,829	22,784	137,808	16.6%
14+	715,973	15,401	136,068	19.0%
Total:	68,084,205	238,438	1,231,172	1.8%

3 Having identified the size and type of main, the Company's 2004 direct  
 4 assignment approach then applied the current per unit installation cost in order to  
 5 arrive at a main investment allocation that directly accounts for the mix of mains  
 6 used to serve these Large Users and the associated cost.

7 **Q. SHOULD THE 2004 METHOD BE USED TO DIRECTLY ASSIGN MAIN**  
 8 **INVESTMENT TO THE LARGE USERS IN THIS PROCEEDING?**

9 A. Yes. The 2004 method is the most equitable method as it allows for a precise  
 10 identification of the mains used to deliver gas to these customers. It is superior to  
 11 the Company's approach as it corrects for the over allocation of investment  
 12 associated with smaller mains and the under allocation of larger mains.

13 Application of this approach for the Large Users in this proceeding is summarized  
 14 in the following table and Exhibit No. \_\_\_ (DWS-4), page 3.

1

**Direct Assignment to Large Users**

**Avg Winter Day**

Diameter	Main Cost (\$)	Percent of Total
<2	\$52,081	0.1%
2	\$2,320,231	3.9%
3	\$35,375	0.1%
4-5	\$10,764,075	18.2%
6	\$9,109,737	15.4%
8-10	\$11,500,489	19.4%
12	\$13,913,802	23.5%
14+	\$11,449,741	19.4%
Total:	\$59,145,531	100.0%

2

For the remaining customer classes, the Company's classification and allocation

3

approach to distribution mains can still be done as indicated in Exhibit No. \_\_\_\_

4

(DWS-4), page 3.

5

**Q. HAVE YOU INCORPORATED THIS ALLOCATION METHOD INTO THE COMPANY'S COST OF SERVICE MODEL?**

6

7

A. Yes. Exhibit No. \_\_\_\_ (DWS-5) contains the summary from two cost of service

8

studies where main investment was directly assigned to Large Users. Exhibit No.

9

\_\_\_\_ (DWS-5), page 1, is comparable to Exhibit No. \_\_\_\_ (DWS-3), page 1 in that

10

PSE's customers are on their existing rate schedule. Similarly, Exhibit No. \_\_\_\_

11

(DWS-5), page 2, is comparable to Exhibit No. \_\_\_\_ (DWS-3) page 2 with most

12

Schedule 57 customers migrated to the otherwise applicable sales tariff. The

13

following table compares the revenue to cost ratio or parity ratio for select

14

customer classes based upon the cost studies I performed. The parity ratio is the

15

most appropriate yardstick for determining whether the rate schedule charges are

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equitable to each customer class. A ratio less than 1.0 or 100% indicates a class is

1 not paying its fair share of costs. Conversely, a ratio greater than 100% indicates  
2 the class is paying charges in excess of its cost responsibility.

Cost of Service Results  
Comparison of Select Customer Parity Ratios

	<u>PSE's Main Allocation</u>		<u>NWIGU Main Allocation</u>	
	Migrated Customers	Existing Customers	Migrated Customers	Existing Customers
Residential	1.01	1.01	1.01	1.00
C&I (31, 61)	0.89	0.89	0.88	0.88
85 Sales	1.72	1.72	1.34	1.34
87 Sales	1.25	1.25	1.26	1.26
57/SC				
Possible 85	1.72	1.97	1.63	1.87
Possible 87	0.81	0.80	1.24	1.24
Remaining 57/SC	1.22	1.22	1.34	1.33
57/SC	1.17	1.23	1.40	1.48
Rentals	0.69	0.69	0.69	0.69

3 A review of the above table shows the change in main allocation methods  
4 has virtually no impact on the parity ratios of the Residential, small commercial  
5 and industrial and rental classes. It is only the Large User schedules that are  
6 affected as the parity ratio of Schedule 85 customers is lower, while for Schedules  
7 87, 57, and for customers taking service under special contracts, the ratio is higher  
8 than under the Company's studies. However, all the Large User parity ratios are  
9 substantially greater than 1.0, indicating that customers taking service under  
10 Schedules 85, 87, 57 and special contracts are paying too much for delivery  
11 service.



1 **III. RATE SPREAD**

2 **Q. HAS THE COMPANY ADDRESSED RATE INEQUITIES IN ITS RATE**  
3 **SPREAD PROPOSAL?**

4 A. For the most part, the Company has proposed class specific increases based upon  
5 its cost of service results. The Company states its intent to assign “a relatively  
6 large portion of the revenue increase to those classes with current parity ratios  
7 below 100%” (see JKP-1T, page 44, lines 1-3). However, this does not appear to  
8 be the case with regard to the rental class. This class has a parity ratio of just 69%  
9 under the Company’s cost study which is the lowest of any major class. For this  
10 class, the Company has proposed an increase of just 5.3% while the average  
11 margin increase is over 17%. In other words, the PSE increase is less than one-  
12 third of the average percentage increase. This very modest increase for the rental  
13 class can not be justified given the cost study result.

14 **Q. HOW SHOULD THE COMMISSION ASSIGN ANY REVNEUE**  
15 **INCREASE AMONG THE CUSTOMER CLASSES IN THIS**  
16 **PROCEEDING?**

17 A. The Company’s stated intent of moving toward a cost-based level should be the  
18 guiding goal line. However, it should apply to all classes and be based upon the  
19 cost study results as shown by Exhibit No. \_\_\_\_ (DWS-5). The results of the  
20 Company cost study and the NWIGU cost study are very similar for many of the  
21 major classes. Consequently, the NWIGU rate spread recommendation essentially  
22 adopts the PSE proposal for the residential, small commercial and industrial,  
23 Schedule 41, Schedule 50, Schedule 85 and Schedule 86 customer groups.

1 However, the NWIGU cost study shows a below average increase is warranted for  
 2 Schedules 87 and 57 and as previously noted, the rental class should be assigned  
 3 an above average margin increase. For the rental class, NWIGU recommends an  
 4 increase that is 150% of the average margin increase as PSE proposed for the  
 5 small commercial and industrial customers. For Schedule 87 and 57, NWIGU  
 6 recommend these classes receive one-half the average margin increase. The  
 7 following table illustrates and compares the PSE and NWIGU rate spread  
 8 proposals for PSE's claimed margin increase.

9 Rate Spread Comparison

Class	<u>PSE Proposal</u>		<u>NWIGU Recommendation</u>		Margin Difference
	Change in Margin	Margin Increase	Change in Margin	Margin Increase	
Residential	\$39,565	17.5%	\$38,914	17.2%	-\$651
C&I (31,61)	\$16,547	25.3%	\$16,762	25.6%	\$215
Schedule 41	\$0	0.0%	\$0	0.0%	\$0
CNG (50)	\$5	17.9%	\$7	25.6%	\$2
Schedule 85	(\$0)	0.0%	\$0	0.0%	\$0
Schedule 86	(\$309)	-8.7%	-\$309	-8.7%	\$0
Schedule 87	\$1,272	21.9%	\$496	8.5%	-\$776
Schedule 57	\$571	24.6%	\$198	8.5%	-\$372
Rentals	\$414	5.3%	\$1,997	25.6%	\$1,583
Total:	\$58,065	17.1%	\$58,065	17.1%	\$0

24 In the likely event that PSE is granted less than the amount of margin  
 25 revenue being sought, the rate spread should be based on the above NWIGU  
 26 recommendation. The residential class should be assigned the average margin  
 27 increase percentage. The small commercial and industrial, CNG and rental  
 28 classes should be assigned 150% of the overall margin increase. Schedule 86  
 29 customers should receive a decrease determined as one-half of the margin  
 30 increase. The Schedule 85 revenue level should not be changed and Schedules 87

1 and 57 (if Schedule 57 is to be retained) should be assigned one-half the overall  
2 margin increase.

3 **IV. INDUSTRIAL RATE DESIGN**

4 **Q. HAVE YOU REVIEWED THE COMPANY'S PROPOSED INDUSTRIAL**  
5 **RATE DESIGN?**

6 A. Yes, I have reviewed the Company's rate design proposals for Schedule 85, 87  
7 and 57. Of most importance, the Company is seeking Commission authority to  
8 close Schedule 57 to new customers at the end of this proceeding and end the rate  
9 to all existing customers in 2012. PSE is proposing that transportation service be  
10 offered to all customers under the otherwise applicable sale schedule such as 85  
11 and 87. With regard to specific pricing elements, the Company is proposing  
12 substantial increases to the fixed customer and demand charges of these  
13 schedules. Any remaining margin increase or decrease is assigned to and  
14 recovered from the volumetric charges.

15 **Q. DOES NWIGU SUPPORT THE FREEZING AND PHASING OUT OF**  
16 **SCHEDULE 57?**

17 A. NWIGU would support the complete elimination of Schedule 57 at the conclusion  
18 of this proceeding only under certain very specific conditions. Otherwise,  
19 NWIGU recommends retaining the current tariff as the single rate schedule for  
20 transporting customer-owned gas supplies.

1 **Q. WHAT CONDITIONS ARE NEEDED TO GAIN NWIGU'S SUPPORT**  
2 **FOR THE ELIMINATION OF SCHEDULE 57?**

3 A. The PSE otherwise applicable sale schedules under which the former Schedule 57  
4 customers would be receiving service have different terms and conditions than  
5 Schedule 57. In particular, there are fuel exclusivity clauses, alternate fuel  
6 capability requirements and monthly minimum volumetric obligations. None of  
7 these requirements are included as a condition of service under Schedule 57.  
8 NWIGU would support the elimination of Schedule 57 if these restrictions were  
9 eliminated from Schedules 85 and 87.

10 **Q. PLEASE EXPLAIN WHAT YOU MEAN BY A FUEL EXCLUSIVITY**  
11 **CLAUSE.**

12 A. Certainly. Schedule 85, Section 5, paragraph 1 requires customer's to use gas as  
13 the exclusive or only fuel if it is available. In other words, only during periods of  
14 curtailment by PSE may the customer use an alternate fuel such as oil. By  
15 contrast, Schedule 87 Section 5, paragraph 5 states: "The customer may, at its  
16 option, utilize substitute fuels during periods of non-curtailment." The current  
17 interruptible sales tariffs of Avista, Cascade Natural Gas and NW Natural do not  
18 have a fuel exclusivity provision. Customers should be allowed to elect to use the  
19 most economical fuel in their operations. Schedule 85 should contain the optional  
20 fuel language of Schedule 87. The existing restrictive fuel exclusivity language of  
21 Schedule 85 should be deleted.

22

1 **Q. IS AN ALTERNATE FUEL CAPABILITY REQUIREMENT**  
2 **NECESSARY?**

3 A. No. Alternate fuel requirements have been dropped from the terms and conditions  
4 of service under the Commission regulated transportation tariffs for some time in  
5 recognition of the fact that they are unnecessary. In so doing, the Commission has  
6 allowed the customer to elect the economic choice of having and maintaining the  
7 capability to use an alternate fuel if gas service is interrupted, or accepting the  
8 service interruption by curtailing operations. In the most recent complete re-  
9 design of sales and transportation tariffs approved by this Commission, NW  
10 Natural no longer requires alternate fuel capability as a condition of interruptible  
11 sales (or transportation) service. In this instant restructuring of PSE's tariff, it is  
12 an appropriate time to delete this requirement from the terms and conditions of  
13 Schedule 85 and 87. The tariff should simply state:

14 If the Customer does not have or maintain standby  
15 facilities, and curtails or suspends operations because of a partial or  
16 total curtailment of interruptible gas supply, Customer agrees and  
17 acknowledges that such curtailment of operations results solely  
18 from its election not to install and maintain standby facilities and  
19 fuel and does not in any way constitute a breach of contract on the  
20 part of the Company.

21 **Q. PLEASE EXPLAIN THE MINIMUM MONTHLY VOLUMETRIC**  
22 **PROVISIONS OF SCHEDULE 85 AND 87.**

23 A. Schedule 85 imposes an additional charge if a minimum monthly volumetric  
24 quantity is not achieved. The minimum quantity is defined as the greater of 50%  
25 of the highest monthly quantity in the last twelve months or 15,000 therms. For  
26 Schedule 87, the minimum obligation is couched in terms of a monthly deficiency

1 volume defined as the monthly contract volume minus the interruptible gas that  
2 was delivered. The monthly contract volume is defined as one-twelfth the annual  
3 contract volume (absent any exceptions) with the annual volume defined as 75%  
4 of the deliveries from the prior year but not less than 750,000 therms.

5 **Q. DO ANY OF THE OTHER WASHINGTON GAS DISTRIBUTION**  
6 **COMPANIES (LDCs) IMPOSE MONTHLY VOLUMETRIC MINIMUMS?**

7 A. No. None of the other LDCs have a minimum monthly volumetric tariff provision  
8 that is an eligibility requirement to qualify for interruptible service. However, two  
9 of the Washington LDCs do have annual minimum volumetric obligations.

10 Annual volumetric obligations are not unusual as such requirements are a simple  
11 but direct way to segment customers on different tariffs. Once similar customers  
12 are grouped on the most appropriate tariff, however, monthly volumetric  
13 minimums are not needed.

14 **Q. SHOULD PSE'S MONTHLY VOLUMETRIC MINIMUMS BE**  
15 **ELIMINATED?**

16 A. Yes. The monthly volumetric minimums should be replaced with annual  
17 volumetric minimums to appropriately classify interruptible customers by size.  
18 For Schedule 85, the annual minimum volume should be 180,000 therms (the  
19 current monthly minimum of 15,000 x 12 = 180,000). For Schedule 87, the  
20 annual minimum should be the current minimum value of 750,000 therms. For  
21 each rate schedule, the pricing of the deficiency volumes can be retained. The  
22 calculation will just be made once a year as opposed to the current monthly  
23 calculation.

1 **Q. WHAT IS THE NWIGU POSITION IF THESE THREE**  
2 **RECOMMENDATIONS ARE NOT ADOPTED BY THE COMMISSION?**

3 A. In that event, NWIGU strongly urges the Commission to retain Schedule 57 for  
4 both existing transportation customers and new transportation customers. It  
5 should not be phased out or terminated. The tariff provisions of Schedule 57 have  
6 been in place for some time. They are well understood and in line with  
7 progressive rate designs. PSE's outdated sales conditions should not be imposed  
8 on current or future transportation customers.

9 **Q. WON'T PSE'S PROPOSAL TO "GRANDFATHER" THE SCHEDULE 57**  
10 **TERMS AND CONDITIONS FOR THE MIGRATED CUSTOMERS**  
11 **ADDRESS YOUR CONCERNS?**

12 A. No. Over the years, customers have had and should continue to have the option to  
13 move between sales and transportation service. Having different terms and  
14 conditions depending upon the service election really makes no sense. Further, it  
15 would appear if an existing transportation customer were to elect sales service, it  
16 would lose the grandfathered rights. For both these reasons, I would urge the  
17 Commission to approve the NWIGU recommendations with regard to updating  
18 PSE's sale schedule provisions to match other LDCs in this state. If not, as a  
19 second best alternative, NWIGU recommend retaining Schedule 57.

20 **Q. HOW IS PSE PROPOSING TO RECOVER THE MARGIN REVENUE**  
21 **FROM SCHEDULES 85, 87 AND 57?**

22 A. The Company's testimony addresses the matter of proposing increases to the  
23 customer charges of these rate schedules. The Company's testimony is silent with  
24 regard to the proposed increase to the demand charge, the decrease in the

1 Schedule 85 procurement charge, the elimination of the transportation balancing  
2 service charge, the substantial decrease to the volumetric charges of Schedule 85  
3 and the uniform percentage increase to the volumetric charges of Schedules 87  
4 and 57. Exhibit No. \_\_\_ (DWS-6) presents the current and PSE proposed charges  
5 for each of these three rate schedules.

6 **Q. WHAT HAVE YOU CONCLUDED FROM YOUR REVIEW OF PSE'S**  
7 **PROPOSED RATE CHARGES FOR THESE SHCEDULES?**

8 A. PSE is proposing a substantial increase in the fixed charges for these customers  
9 and modest increases or decreases to the volumetric charges. The best illustration  
10 of this rate design emphasis is Schedule 85. PSE has proposed that no margin  
11 increase be assigned to this class. Yet, as shown by Exhibit No. \_\_\_ (DWS-6),  
12 the fixed margin revenue increases by \$550,000 or 40% while the volumetric  
13 margin revenue decreases by a similar amount with an overall 12% decrease. A  
14 comparison of the PSE proposed fixed price increases with their proposed overall  
15 margin increase for all three schedules is presented in the following table.

<u>Percent Increases</u>		
	Overall	Fixed
Schedule	Increase	Prices
85	0.0%	40.0%
87	21.8%	45.6%
57	23.9%	41.5%

16 **Q. IS THIS RATE DESIGN EMPHASIS JUSTIFIED?**

17 A. I don't believe so. It must be acknowledged that the vast majority of the  
18 Company's costs are fixed in the short term. This does not necessarily mean--as  
19 the Company is arguing-- that greater fixed cost recovery is required. This



1 Commission long ago soundly rejected the fixed-variable costing method. Yet it  
2 appears the Company is seeking this approach for revenue recovery:

3 For example, in the residential class prior to any rate changes, 71  
4 percent of margin revenue is derived from volumetric, or per  
5 therm, charges. In contrast, less than one percent of the  
6 Company's distribution cost is related to the volume of gas the  
7 Company sells or transports. Yet most revenue is derived from  
8 volumetric rates. Because of this, the Company's revenue stream  
9 is vulnerable to changes in customer usage patterns, weather, and  
10 conservation efforts. A major concern of the Company is this  
11 continuing practice of recovering fixed costs through volumetric  
12 rates – not only customer costs but demand costs as well.

13 Increasing the basic charge starts to address the need to recover  
14 fixed costs through fixed charges. Even with the proposed  
15 increases in customer charges, a large portion of fixed costs will  
16 continue to be recovered through volumetric rates. The proposed  
17 basic charges reflect the need to make the Company's rate structure  
18 more consistent with its cost structure. (Exhibit \_\_\_ (JKP-1T, pp  
19 46-47)

20 **Q. DO SCHEDULES 85 AND 87 HAVE A SIMILAR LEVEL OF FIXED**  
21 **COST RECOVERY AS THE RESIDENTIAL CLASS?**

22 A. Yes. To make the analysis “an apples-to-apples” comparison, Schedule 85 and 87  
23 customers were selected based upon firmness of service and load factor to be  
24 comparable to the firm service provided residential customers. As shown by the  
25 following table, the Company's fixed cost recovery percentage from large firm  
26 users is greater than the residential class.

Fixed Cost Recovery

	Sch 85	Sch 87	Residential
Customer	10.4%	2.2%	29.4%
Demand	25.9%	35.2%	0.0%
Subtotal:	36.2%	37.4%	29.4%
Volumetric	63.8%	62.6%	70.6%
Total:	100.0%	100.0%	100.0%

1 The NWIGU believe Schedules 85 and 87 customers should not be required to  
2 contribute a disproportionate share of revenue through fixed charges. As shown  
3 by the above table, PSE's rate design proposal would result in just such a  
4 disproportionate imposition of fixed charges on Schedule 85 and 87 customers.

5 **Q. HOW DO YOU RECOMMEND ANY INCREASE IN MARGIN REVENUE**  
6 **BE RECOVERED FROM SCHEDULE 85, 87 AND 57 (IF IT IS TO BE**  
7 **CONTINUED)?**

8 A. The NWIGU recommendation is presented in Exhibit No. \_\_\_ (DWS-6) next to  
9 the PSE proposal. NWIGU recommend the existing fixed charge prices—the  
10 customer charge and the demand charge--be maintained at the current level. For  
11 Schedule 85, the revenue lost from the elimination of the monthly minimum  
12 should be recovered by increasing the volumetric charges. For Schedules 87 and  
13 57, the entire increase assigned to these customers should be recovered by  
14 applying an equal percentage increase to each volumetric charge.

15 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

16 A. Yes, it does.

Puget Sound Energy - 2007 Gas Cost of Service Study  
Proposed Test Year Without Gas  
PSE Study - Existing Customer Classification

Line No	Description	Total Company	Residential (\$16,233.53)	Commercial & Industrial (\$1,307,918.1)	Large Volume (\$41)	Interruptible (\$19)	Limited Interruptible (\$6)	Non-Exclusive Interruptible (\$7)	Transport & Contracts	CHS Service (\$2)	Rentals
	(3)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	Rate Base	\$ 2,282,742,858	\$ 1,518,339,495	\$ 548,551,354	\$ 63,878,717	\$ 6,572,200	\$ 13,254,425	\$ 11,036,048	\$ 75,788,858	\$ 528,570	\$ 44,004,950
2	Plant & Service										
3	Accumulated Reserve	(773,227,522)	(508,164,789)	(191,107,495)	(19,997,378)	(2,173,120)	(4,283,080)	(3,483,568)	(73,120,088)	(7,534)	(19,895,595)
4	Other Rate Base Items	(160,120,115)	(92,887,019)	(40,822,503)	(4,457,685)	(533,421)	(781,809)	(803,228)	(5,433,183)	7,919	(2,814,758)
5	TOTAL RATE BASE	\$ 1,349,395,041	\$ 809,286,687	\$ 311,821,251	\$ 39,823,732	\$ 4,285,698	\$ 8,189,155	\$ 6,847,270	\$ 72,228,553	\$ 459,285	\$ 21,394,637
Revenue at Current Rates											
6	Gas Revenues	\$ 354,162,847	\$ 228,714,403	\$ 65,386,793	\$ 13,028,378	\$ 1,781,780	\$ 3,542,876	\$ 2,024,148	\$ 19,259,139	\$ 28,992	\$ 7,768,789
7	Other Revenues	\$ 6,291,844	\$ 4,614,507	\$ 1,448,075	\$ 42,192	\$ 8,081	\$ 32,651	\$ 2,271	\$ 147,172	\$ -	\$ -
8	TOTAL REVENUE	\$ 340,454,691	\$ 233,328,910	\$ 66,834,868	\$ 13,070,570	\$ 1,789,861	\$ 3,575,527	\$ 2,026,419	\$ 13,406,316	\$ 29,063	\$ 7,768,789
Expenses at Current Rates											
9	Operation and Maintenance	\$ 108,985,613	\$ 79,799,591	\$ 21,446,709	\$ 2,282,031	\$ 464,104	\$ 591,749	\$ 519,493	\$ 3,002,711	\$ 53,476	\$ 533,750
10	Depreciation Expense	\$ 99,458,848	\$ 61,783,191	\$ 22,204,846	\$ 2,562,044	\$ 251,846	\$ 521,708	\$ 418,299	\$ 3,113,874	\$ 56,820	\$ 9,043,228
11	Taxes Other Than Income	\$ 28,160,851	\$ 18,471,725	\$ 6,919,059	\$ 854,881	\$ 85,484	\$ 169,812	\$ 139,342	\$ 975,825	\$ 5,272	\$ 605,020
12	Income Taxes	\$ 22,732,712	\$ 15,739,064	\$ 5,557,773	\$ 739,854	\$ 231,109	\$ 503,879	\$ 207,901	\$ 1,391,425	\$ (17,484)	\$ (609,395)
13	TOTAL EXPENSES - Current	\$ 259,327,024	\$ 175,233,571	\$ 54,128,528	\$ 7,348,620	\$ 872,619	\$ 1,779,149	\$ 1,294,931	\$ 6,473,434	\$ 92,084	\$ 9,867,001
14	Operating Income - Current	\$ 81,127,667	\$ 58,095,119	\$ 12,706,340	\$ 5,495,150	\$ 817,242	\$ 1,796,378	\$ 752,488	\$ 4,932,882	\$ (62,493)	\$ (2,102,212)
15	Current Rate of Return	6.0157%	6.0694%	4.0768%	15.9488%	20.2874%	21.8377%	10.8468%	10.4451%	-1.2138%	-9.3078%
Calculation of Rate Schedule Revenue Requirement at Equal Rates of Return											
16	Required Return	\$ 8,600%	\$ 8,600%	\$ 8,600%	\$ 8,600%	\$ 8,600%	\$ 8,600%	\$ 8,600%	\$ 8,600%	\$ 8,600%	\$ 8,600%
17	Operating Income	\$ 116,847,873	\$ 79,194,015	\$ 28,739,428	\$ 3,407,641	\$ 349,647	\$ 754,516	\$ 587,491	\$ 4,081,497	\$ 37,775	\$ 1,890,870
18	Operating Income (Deficiency)/Surplus	\$ (34,872,607)	\$ (22,104,556)	\$ (14,635,098)	\$ 2,912,269	\$ 475,691	\$ 1,052,077	\$ 144,987	\$ 81,395	\$ (100,209)	\$ (4,068,862)
19	Revenue Conversion Factor	0.6220									
20	Revenue (Deficiency)/Surplus	\$ (55,088,727)	\$ (35,980,582)	\$ (20,719,896)	\$ 3,391,227	\$ 575,183	\$ 1,329,603	\$ 128,284	\$ 723,922	\$ (131,278)	\$ (9,400,110)
21	Revenue Requirement	\$ 316,523,218	\$ 257,309,122	\$ 87,543,758	\$ 10,271,333	\$ 1,222,728	\$ 2,245,832	\$ 1,898,155	\$ 12,692,394	\$ 160,229	\$ 13,188,989
22	Revenues Other Than Rate Sth. Rev	\$ 6,291,844	\$ 4,614,507	\$ 1,448,075	\$ 42,192	\$ 8,081	\$ 32,651	\$ 2,271	\$ 147,172	\$ 719	\$ -
23	Rate Schedule Revenue Requirement	\$ 310,231,374	\$ 262,694,615	\$ 86,095,683	\$ 10,229,141	\$ 1,214,647	\$ 2,213,181	\$ 1,895,884	\$ 12,545,217	\$ 160,210	\$ 13,188,989
24	Deficiency / (Surplus) as % of Sales & Trans Rev	16.78%	15.87%	31.87%	-24.93%	-32.10%	-9.75%	-6.34%	-5.48%	453.75%	69.32%
Expenses at Required Return											
25	Operation and Maintenance	\$ 189,200,257	\$ 75,980,489	\$ 21,506,679	\$ 2,208,712	\$ 404,718	\$ 565,857	\$ 519,189	\$ 5,007,256	\$ 58,486	\$ 933,750
26	Depreciation Expense	\$ 89,429,649	\$ 61,783,191	\$ 22,204,846	\$ 2,562,044	\$ 251,846	\$ 521,708	\$ 418,299	\$ 3,138,674	\$ 56,820	\$ 9,043,228
27	Taxes Other Than Income	\$ 30,305,011	\$ 19,884,116	\$ 7,444,601	\$ 875,899	\$ 91,343	\$ 182,006	\$ 149,461	\$ 1,047,181	\$ 5,326	\$ 644,954
28	Income Taxes	\$ 41,510,128	\$ 27,871,910	\$ 9,685,102	\$ 1,218,908	\$ 125,659	\$ 251,933	\$ 213,721	\$ 1,462,768	\$ 13,512	\$ 676,289
29	TOTAL EXPENSES - Required	\$ 280,435,045	\$ 185,439,807	\$ 60,744,328	\$ 6,868,662	\$ 873,531	\$ 1,541,833	\$ 1,800,664	\$ 8,529,907	\$ 21,154	\$ 11,288,239
30	Current Revenue to Cost Ratio	0.66	0.86	0.78	1.33	1.47	1.80	1.07	1.06	0.18	0.59
31	Rate Ratio	1.00	1.01	0.69	1.56	1.72	1.67	1.25	1.24	0.21	0.69

Puget Sound Energy - 2007 Gas Cost of Service Study  
Proposed Test Year Without Gas  
PSE Study - Proposed Customer Migration

Line No.	Description	Total Company	Residential	Comms. & Indus.	Large Volume	Intermittent Sales (\$K)	Limited Intermittent (\$K)	Non-Exclusive Intermittent Sales (\$K)	Transport & Contracts	CHG Service (\$K)	Rentals	Interruptible Transport (\$K)	Non-Exclusive Inter Transport (\$K)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
<b>Rate Base</b>													
	Plant in Service	\$ 2,282,742,459	\$ 1,514,313,421	\$ 545,400,162	\$ 64,460,869	\$ 6,871,131	\$ 13,250,008	\$ 11,032,103	\$ 21,794,177	\$ 629,854	\$ 44,684,693	\$ 18,698,453	\$ 34,898,385
	Accumulated Reserve	(773,227,674)	(609,153,787)	(193,104,267)	(20,144,267)	(2,72,075)	(4,201,392)	(3,432,878)	(6,746,487)	(97,238)	(16,886,595)	(5,746,671)	(10,410,411)
	Other Rate Base Items	(1,081,211,116)	(98,878,751)	(15,821,553)	(4,484,941)	(33,632)	(781,340)	(603,581)	(1,044,357)	7,920	(2,814,578)	(2,448,917)	(2,646,162)
	<b>TOTAL RATE BASE</b>	\$ 1,249,303,671	\$ 509,280,893	\$ 311,674,332	\$ 39,833,017	\$ 4,654,922	\$ 8,107,837	\$ 8,845,624	\$ 14,534,288	\$ 439,246	\$ 21,904,637	\$ 11,509,279	\$ 21,812,822
<b>Revenue in Current Rates</b>													
	Gas Revenues	333,460,149	226,714,103	65,288,781	13,729,465	1,791,788	3,642,879	2,024,146	3,938,822	28,332	7,789,789	4,785,004	3,779,828
	Loss Revenues	(8,291,144)	(4,614,507)	(1,446,079)	(21,593)	(6,091)	(32,401)	(2,271)	(22,222)	719	-	(129,154)	93,970
	Other Revenues	\$ 239,762,293	\$ 231,328,530	\$ 65,832,269	\$ 13,774,048	\$ 1,797,881	\$ 3,875,538	\$ 2,008,419	\$ 3,831,144	\$ 29,651	\$ 7,789,789	\$ 4,674,469	\$ 3,792,899
	<b>TOTAL REVENUE</b>	\$ 504,930,500	\$ 462,360,133	\$ 132,661,029	\$ 27,277,560	\$ 3,285,658	\$ 7,548,816	\$ 4,032,574	\$ 7,799,715	\$ 57,602	\$ 15,569,367	\$ 9,580,323	\$ 7,665,717
<b>Expenses at Current Rates</b>													
	Operation and Maintenance	104,524,297	79,789,073	22,416,308	2,423,113	402,890	554,528	418,444	984,517	53,475	833,750	490,744	1,037,489
	Depreciation Expense	94,424,649	61,261,719	27,004,451	2,692,244	261,868	574,549	418,010	862,974	50,419	930,326	714,726	1,438,285
	taxes Other Than Income	20,153,673	18,153,076	6,132,375	525,375	85,388	159,460	139,178	282,298	5,271	581,457	246,401	458,973
	Income Taxes	22,897,555	17,652,722	3,743,698	1,178,358	230,324	501,193	267,181	366,047	(17,416)	(607,481)	652,487	191,558
	<b>TOTAL EXPENSES - Current</b>	\$ 244,999,174	\$ 176,848,571	\$ 54,100,839	\$ 7,399,910	\$ 971,278	\$ 1,786,524	\$ 1,222,813	\$ 2,595,708	\$ 24,111	\$ 3,560,942	\$ 2,801,558	\$ 3,108,883
	Operating Income - Current	\$ 80,731,326	\$ 56,172,013	\$ 12,724,917	\$ 6,374,917	\$ 2,614,380	\$ 1,769,692	\$ 719,761	\$ 1,943,580	\$ (22,600)	\$ (2,181,153)	\$ 2,768,809	\$ 856,934
	Current Rate of Return	6.50%	6.17%	1.00%	16.96%	20.32%	21.96%	10.70%	10.26%	-14.22%	-8.19%	19.46%	3.14%
<b>Calculation of Rate Schedule Revenue Requirement at Equal Rates of Return</b>													
	Required Return	\$ 6,800,000	\$ 6,800,000	\$ 6,800,000	\$ 6,800,000	\$ 6,800,000	\$ 6,800,000	\$ 6,800,000	\$ 6,800,000	\$ 6,800,000	\$ 6,800,000	\$ 6,800,000	\$ 6,800,000
	Required Operating Income	\$ 118,047,973	\$ 79,384,198	\$ 34,769,824	\$ 3,634,153	\$ 210,583	\$ 704,137	\$ 597,120	\$ 1,183,956	\$ 37,775	\$ 1,839,670	\$ 897,530	\$ 1,875,951
	Revenue Requirement (Deficiency)/Surplus	\$ (35,301,241)	\$ (22,606,144)	\$ (14,074,856)	\$ 2,910,801	\$ 476,392	\$ 1,094,210	\$ 1,694,210	\$ 221,481	\$ (101,215)	\$ (4,170,823)	\$ 1,272,352	\$ (1,168,535)
	Revenue (Deficiency)/Surplus	\$ (56,775,924)	\$ (36,529,998)	\$ (20,709,241)	\$ 3,421,430	\$ 476,698	\$ 1,301,107	\$ 1,287,653	\$ 169,221	\$ (131,278)	\$ (5,401,110)	\$ 1,528,329	\$ (1,704,963)
	Revenue Requirement	\$ 40,523,117	\$ 267,307,518	\$ 67,542,871	\$ 11,252,617	\$ 1,224,188	\$ 2,245,426	\$ 1,897,651	\$ 3,761,924	\$ 160,927	\$ 31,188,899	\$ 3,944,630	\$ 5,497,288
	Revenues Other Than Rate Base	4,291,644	4,614,917	1,446,075	44,663	6,091	32,401	2,271	22,222	719	-	(101,164)	13,370
	Rate Schedule Revenue Requirement	\$ 44,814,761	\$ 271,922,435	\$ 68,988,946	\$ 11,297,280	\$ 1,230,279	\$ 2,277,827	\$ 1,900,922	\$ 3,784,146	\$ 161,646	\$ 31,188,899	\$ 3,843,466	\$ 5,510,658
	Deficiency / Surplus as % of Sales & Trans Rev	17.02%	15.87%	31.67%	-24.82%	-32.13%	-37.04%	-4.36%	-4.33%	453.74%	60.33%	-52.00%	45.11%
<b>Expenses at Required Return</b>													
	Operation and Maintenance	108,202,255	79,992,632	21,606,134	2,224,900	418,323	645,924	519,150	985,810	43,441	941,760	562,408	1,038,815
	Depreciation Expense	98,725,649	61,261,719	22,204,382	2,692,244	261,868	574,549	418,010	862,974	50,419	930,326	764,725	1,438,485
	taxes Other Than Income	30,335,012	28,153,756	7,444,445	662,430	81,246	181,955	149,119	302,869	9,395	844,862	284,143	473,940
	Income Taxes	41,510,127	27,971,254	9,565,956	1,228,300	148,646	251,288	213,653	446,246	13,612	678,288	585,817	670,983
	<b>TOTAL EXPENSES - Required</b>	\$ 278,773,043	\$ 187,103,861	\$ 60,743,771	\$ 6,378,404	\$ 817,072	\$ 1,571,292	\$ 1,300,923	\$ 2,695,806	\$ 123,162	\$ 11,259,223	\$ 2,340,032	\$ 3,822,002
	Rate Schedule Revenue as Proposed	\$ 44,814,761	\$ 271,922,435	\$ 68,988,946	\$ 11,297,280	\$ 1,230,279	\$ 2,277,827	\$ 1,900,922	\$ 3,784,146	\$ 161,646	\$ 31,188,899	\$ 3,843,466	\$ 5,510,658
	Other Revenue	4,291,644	4,614,917	1,446,075	44,663	6,091	32,401	2,271	22,222	719	-	(101,164)	13,370
	<b>Revenue as Proposed</b>	\$ 49,106,405	\$ 276,537,352	\$ 70,435,021	\$ 11,341,943	\$ 1,236,370	\$ 2,310,228	\$ 1,903,193	\$ 3,806,368	\$ 162,365	\$ 31,188,899	\$ 3,742,302	\$ 5,524,028
	Proposed Revenue Increase	\$ 58,770,327	\$ 39,589,692	\$ 16,178,028	\$ 1,277	\$ (20,866)	\$ (302,262)	\$ 399,684	\$ 580,538	\$ 5,074	\$ 404,002	\$ 29,821	\$ 863,153
	Proposed Revenue - Revenue Requirement	\$ 58,770,327	\$ 276,011,122	\$ 93,011,187	\$ 15,774,773	\$ 1,027,895	\$ 3,273,289	\$ 2,425,113	\$ 4,486,903	\$ 34,225	\$ 8,183,891	\$ 4,034,279	\$ 4,636,181
	Current Revenue to Cost Ratio	0.85	0.85	0.76	1.33	1.47	1.80	1.17	1.05	0.18	0.59	1.47	0.99
	Payoff Ratio	1.09	1.01	0.69	1.56	1.72	1.22	0.21	0.69	0.21	1.72	0.69	0.81

Puget Sound Energy  
2007 General Rate Case  
PSE Derivation of Peak-Average Allocation Factor for Mains

Line No	Item	Amount	Percent	Allocator	Residential (16,23,53)	Comm & Indus (31,35,51,61)	Large Volume (41)	Interruptible (85)	Limited Interruptible (86)	Non-Exclusive Interruptible (87)	Transportation (57)	Special Contracts	CMS Service (50)
1	<b>Peak</b> Allocated Mains Costs	892,739,082	67.042%										
2	Direct Assignment	11,107,538		Direct Design Peak	485,593,738	174,028,004	21,042,167	2,837,535	854,164	2,706,464	-	5,563,540	-
3	Net Allocated Costs	661,631,544			485,593,738	174,028,004	21,042,167	2,837,535	854,164	2,706,464	-	5,563,540	13,471
4	Total Peak Costs	692,739,082											13,471
5	<b>AVERAGE</b> Allocated Mains Costs	340,545,871	32.958%										
6	Direct Assignment	-		Volume	182,542,614	69,880,312	23,436,600	13,865,801	5,811,623	34,136,325	0	10,831,184	41,412
7	Net Allocated Costs	340,545,871			182,542,614	69,880,312	23,436,600	13,865,801	5,811,623	34,136,325	0	10,831,184	41,412
8	Total Average Costs	340,545,871											
9	Total (PA_MAINS)	\$ 1,033,284,953			668,136,352	243,908,316	44,478,787	16,703,336	6,765,786	36,842,766	0.00%	16,394,724	54,863
10	Percent	100.00%			64.68%	23.61%	4.30%	1.62%	0.65%	3.57%	0.00%	1.58%	0.01%
11	<b>Allocators</b> Design Peak	8,828,973			6,289,753	2,254,133	272,553	-	12,859	-	-	-	174
12	Percent	100.00%			71.24%	25.53%	3.09%	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%
13	Total Annual Volume	622,201,562			532,765,816	203,951,509	68,401,668	40,468,486	16,961,705	99,629,795	-	31,611,711	120,864
14	Minimum Annual Volume	171,798,912			532,765,816	203,951,509	68,401,668	40,468,486	16,961,705	99,629,795	-	31,611,711	120,864
15	Volume	993,911,474			53.60%	20.52%	6.88%	4.07%	1.71%	10.02%	0.00%	3.18%	0.01%
16	Percent	100.00%											

Puget Sound Energy  
2007 General Rate Case  
Securitized Peak-Average Allocation Factor for Mains

Line No.	Item	Amount	Percent	Allocator	Residential (16,23,53)	Comm. & Indus. (31,38,51,61)	Large Volume (41)	Interruptible (85)	Limited Interruptible (86)	Non-Exclusive Interruptible (87)	Transportation (87)	Special Contracts	CNG Service (50)
1	Total Mains	\$1,033,284,953											
2	< 4 Inches in Diameter	\$458,604,938											
3	> 4 Inches in Diameter	\$574,680,015											
4	> 4 Inches Peak	\$385,279,303											
5	> 4 Inches Average	\$189,400,712											
6	Peak > 4 Inch		67.042%										
7	Allocated Mains Costs	385,279,303											
8	Direct Assignment	11,107,538		Direct				2,837,535		2,706,464		5,563,540	7,395
9	Net Allocated Costs	374,171,765		Design Peak	266,559,850	95,530,153	11,550,793		523,774				
10	> 4 Inch Peak Costs	385,279,303			286,559,850	95,530,153	11,550,793	2,837,535	523,774	2,706,464		5,563,540	7,395
11	Average > 4 Inch		32.958%										
12	Allocated Mains Costs	189,400,712											
13	Direct Assignment	189,400,712		Volume	101,524,359	38,856,193	13,034,687	7,711,715	3,232,239	18,985,531	0	8,023,958	23,032
14	Net Allocated Costs	189,400,712			101,524,359	38,856,193	13,034,687	7,711,715	3,232,239	18,985,531		8,023,958	23,032
15	> 4 Inches (PA_MAINS)	\$ 574,680,015			368,084,009	134,395,345	24,585,480	10,549,250	3,750,013	21,691,995		11,587,498	30,427
16	Percent	100.00%			64.05%	23.39%	4.28%	1.84%	0.65%	3.77%	0.00%	2.02%	0.01%
17	Peak < 4 Inch		67.042%										
18	Allocated Mains Costs	\$307,459,779											
19	Direct Assignment	307,459,779		Included in > 4	219,034,088	78,497,852	9,491,374	0	430,389	0	0	0	6,076
20	Net Allocated Costs	307,459,779			219,034,088	78,497,852	9,491,374	0	430,389	0	0	0	6,076
21	< 4 Inch Peak Costs												
22	Average < 4 Inch		32.958%										
23	Allocated Mains Costs	\$151,145,158											
24	Direct Assignment	151,145,158			96,849,310	37,075,507	12,434,458	959,241	3,083,399	0	0	721,272	21,571
25	Net Allocated Costs	151,145,158			96,849,310	37,075,507	12,434,458	959,241	3,083,399	0	0	721,272	21,571
26	< 4 Inches (PA_MAINS)												
27	Percent				315,883,388	115,573,359	21,825,833	959,241	3,513,788	0	0	721,272	28,048
28	Total Mains:	\$1,033,284,953			\$683,987,407	\$249,968,704	\$46,511,312	\$11,508,481	\$7,269,801	\$21,891,995	\$0	\$12,308,769	\$58,474
29	Allocators				66.19%	24.19%	4.50%	1.11%	0.70%	2.10%	0.00%	1.19%	0.01%
30	Design Peak	8,828,973			6,289,753	2,264,133	272,553	0	12,359	0	0	0	174
31	Percent	100.00%			71.24%	25.53%	3.09%	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%
32	Total Annual Volume	622,201,562			532,765,816	203,951,509	68,401,668	0	16,961,705	0	0	31,611,711	120,864
33	Minimum Annual Volume	171,709,912			532,765,816	203,951,509	68,401,668	40,468,488	15,961,705	99,629,705	0	31,611,711	120,864
34	Volume	993,911,474			53.80%	20.52%	8.85%	4.07%	1.71%	10.02%	0.00%	3.18%	0.01%
35	Percent	100.00%											
36	Full Volumes												
37	Volumes through < 4 inch	831,448,023			62,955,045	8,208,825	136,056,989	0	0	0	0	62,954,572	0
38	Approx Min Vol < 4 Inch				8,208,825	5,276,762	16,961,705	0	0	0	0	5,419,988	0
39	Percent				64.08%	24.53%	8.23%	0.63%	2.04%	0.00%	0.00%	0.48%	0.01%

Large Users  
\$45,509,255

Puget Sound Energy  
2007 General Rate Case  
Derivation of Allocation Factor for Mains  
Existing Customer Classes - DA on Average Winter Day

Line No.	Item	Amount	Percent	Allocator	Residential (16,23,53)	Comm. & Indus (31,38,51,61)	Large Volume (41)	Interruptible (85)	Limited Interruptible (86)	Non-Exclusive Interruptible (87)	Transmission (37)	Special Contracts	CNG Services (50)
1	Total Main Investment:	\$ 1,033,284,953											
2	Direct Assignment:	59,145,531						5,284,576		7,640,994		46,219,862	
3	General Allocation:	974,139,422											
4	Peak		67.042%										
4	Allocated Mains Costs	653,086,488											
5	Allocated Peak Costs	653,086,466		Design Peak	465,258,270	166,740,141	20,160,973		914,208				12,907
6	<b>AVERAGE</b>		32.958%										
6	Allocated Mains Costs	321,052,926											
7	Allocated Average Costs	321,052,928		Volume	208,034,176	79,638,901	26,708,455		6,623,200				47,195
8	Total (PA_MAINS)	\$ 1,033,284,953											
9	Percent	100.00%			673,292,445	248,379,041	46,870,428	5,284,576	7,537,405	7,640,994		46,219,862	60,102
10	check:	0.00		Large Users	85.18%	23.84%	4.54%	-0.51%	0.73%	0.74%		0.00%	0.01%
11	Allocators												
11	Design Peak	8,828,973			6,289,753	2,254,133	272,553		12,359				174
12	Percent	100.00%			71.24%	26.63%	3.09%	0.00%	0.14%	0.00%		0.00%	0.00%
13	Total Annual Volume	822,201,562			532,765,816	203,851,509	68,401,668		16,961,705				120,864
14	Minimum Annual Volume												
15	Volume	822,201,562			532,765,816	203,851,509	68,401,668		16,961,705				120,864
16	Percent	100.00%			64.80%	24.81%	8.32%	0.00%	2.06%	0.00%		0.00%	0.01%

Puget Sound Energy - 2007 Gas Cost of Service Study  
Proposed Test Year Without Gas  
Existing Customer Classification - Mains on AWD

Line No.	Description	Total Company (b)	Residential (16,23,53) (c)	Comm. & Indus (51,56,51,51) (d)	Large Volume (41) (e)	Interruptible (65) (f)	Limited Interruptible (68) (g)	Non-Exclusive Interruptible (67) (h)	Transport & Contracts (59) (i)	Rentals (j)
1	Rate Base									
2	Plant in Service	\$ 2,682,742,068	\$ 1,523,829,207	\$ 551,119,295	\$ 68,986,523	\$ 8,817,587	\$ 14,076,245	\$ 10,825,127	\$ 61,828,245	\$ 534,228
3	Accumulated Reserve	(775,227,502)	(450,732,595)	(161,870,810)	(20,784,993)	(2,451,743)	(4,521,705)	(3,451,743)	(19,017,038)	(98,548)
4	Other Rate Base Items	(168,120,115)	(400,328,645)	(46,037,529)	(4,721,745)	(628,092)	(848,762)	(594,046)	(4,276,108)	(7,465)
5	TOTAL RATE BASE	\$ 1,739,394,451	\$ 672,767,967	\$ 343,271,956	\$ 43,480,785	\$ 5,558,532	\$ 8,705,775	\$ 6,875,338	\$ 38,315,099	\$ 462,745
6	Revenue at Current Rates									
7	Gas Revenues	\$ 194,162,647	\$ 228,714,023	\$ 65,366,793	\$ 13,656,378	\$ 1,991,780	\$ 3,542,675	\$ 2,024,149	\$ 10,259,139	\$ 28,832
8	Base Rate Revenues	\$ 6,391,644	\$ 2,914,597	\$ 1,446,078	\$ 62,152	\$ 6,081	\$ 32,081	\$ 147,177	\$ 719	\$ -
9	Other Revenues	\$ 340,454,481	\$ 231,328,530	\$ 68,832,859	\$ 13,659,330	\$ 1,977,861	\$ 3,575,536	\$ 2,076,415	\$ 13,468,316	\$ 28,651
10	TOTAL REVENUE	\$ 538,918,772	\$ 463,057,150	\$ 135,645,710	\$ 27,377,860	\$ 3,975,722	\$ 7,150,292	\$ 4,102,741	\$ 23,727,174	\$ 57,102
11	Expenses at Current Rates									
12	Operation and Maintenance	\$ 108,535,618	\$ 79,898,111	\$ 21,496,213	\$ 2,261,729	\$ 46,059	\$ 801,169	\$ 516,297	\$ 2,719,794	\$ 53,587
13	Depreciation Expense	\$ 48,426,349	\$ 51,482,100	\$ 22,314,868	\$ 2,658,811	\$ 449,808	\$ 558,027	\$ 413,702	\$ 2,522,346	\$ 51,052
14	Taxes Other Than Income	\$ 25,180,861	\$ 18,542,417	\$ 6,952,990	\$ 853,222	\$ 115,714	\$ 180,210	\$ 137,825	\$ 763,008	\$ 5,344
15	Income Taxes	\$ 22,632,712	\$ 19,679,558	\$ 8,319,864	\$ 1,721,093	\$ 192,804	\$ 499,651	\$ 209,657	\$ 1,612,811	\$ 111,515
16	TOTAL EXPENSES - Current	\$ 204,875,540	\$ 179,562,986	\$ 54,768,965	\$ 7,522,855	\$ 1,760,386	\$ 1,827,657	\$ 1,277,620	\$ 7,607,960	\$ 224,458
17	Operating Income - Current	\$ 334,043,232	\$ 283,494,164	\$ 80,876,745	\$ 20,854,905	\$ 2,215,336	\$ 5,292,640	\$ 2,825,121	\$ 16,119,214	\$ 34,644
18	Current Rate of Return	5.0137%	6.1109%	4.0083%	14.3000%	12.4317%	20.0641%	10.8860%	15.0715%	14.1745%
19	Calculation of Rate Schedule Revenue Requirement at Equal Rates of Return									
20	Required Return	\$ 8,600%	\$ 8,600%	\$ 8,600%	\$ 8,600%	\$ 8,600%	\$ 8,600%	\$ 8,600%	\$ 8,600%	\$ 8,600%
21	Required Operating Income	\$ 116,047,973	\$ 76,495,528	\$ 26,841,337	\$ 3,588,962	\$ 416,314	\$ 748,887	\$ 581,554	\$ 3,290,819	\$ 36,878
22	Operating Income (Deficiency)/Surplus	\$ (24,872,507)	\$ (22,720,181)	\$ (14,990,230)	\$ 2,916,723	\$ 2,162	\$ 899,792	\$ 167,244	\$ 2,461,707	\$ (4,088,882)
23	Revenue Conversion Factor	0.8220								
24	Revenue (Deficiency)/Surplus	\$ (20,408,727)	\$ (36,987,621)	\$ (12,402,517)	\$ 2,822,210	\$ 2,284	\$ 1,207,198	\$ 144,639	\$ 2,833,587	\$ (5,409,110)
25	Revenue Requirement	\$ 398,523,218	\$ 288,125,593	\$ 87,935,176	\$ 10,718,520	\$ 1,572,107	\$ 2,388,538	\$ 1,861,760	\$ 10,573,243	\$ 161,757
26	Revenues Other Than Rate Sch. Rev	\$ 6,281,844	\$ 4,814,587	\$ 1,446,976	\$ 42,162	\$ 6,081	\$ 32,081	\$ 147,177	\$ 719	\$ -
27	Rate Schedule Revenue Requirement	\$ 392,241,374	\$ 283,310,986	\$ 86,488,199	\$ 10,676,358	\$ 1,566,026	\$ 2,356,457	\$ 1,679,589	\$ 10,426,522	\$ 161,038
28	Deficiency (Surplus) as % of Sales & Trans Rev	-8.78%	16.23%	22.71%	-21.67%	-12.60%	-34.57%	-7.19%	-21.37%	486.51%
29	Expenses at Required Return	\$ 108,200,357	\$ 80,090,009	\$ 21,561,163	\$ 2,256,406	\$ 461,584	\$ 802,365	\$ 516,892	\$ 2,724,550	\$ 53,587
30	Operation and Maintenance	\$ 90,428,640	\$ 61,482,100	\$ 22,314,868	\$ 2,658,811	\$ 449,808	\$ 558,027	\$ 413,702	\$ 2,522,346	\$ 51,052
31	Depreciation Expense	\$ 30,356,011	\$ 19,970,288	\$ 7,481,107	\$ 917,594	\$ 123,934	\$ 193,421	\$ 147,833	\$ 850,469	\$ 5,413
32	Taxes Other Than Income	\$ 41,500,128	\$ 29,017,693	\$ 9,666,862	\$ 1,276,818	\$ 170,378	\$ 287,607	\$ 211,598	\$ 1,179,265	\$ 13,620
33	Income Taxes	\$ 268,475,284	\$ 189,630,087	\$ 80,953,359	\$ 7,147,338	\$ 1,095,753	\$ 1,519,641	\$ 1,200,228	\$ 2,729,450	\$ 123,681
34	TOTAL EXPENSES - Required	\$ 477,150,169	\$ 349,733,097	\$ 110,513,082	\$ 12,087,952	\$ 1,572,107	\$ 3,380,646	\$ 2,727,741	\$ 13,253,722	\$ 172,347
35	Current Revenue to Cost Ratio	0.65	0.85	0.76	1.28	1.14	1.52	1.27	1.27	0.18
36	Ratio	1.00	1.00	0.88	1.49	1.34	1.77	1.48	1.48	0.81



Pugal Sound Energy - 2007 Gas Cost of Service Study  
Proposed Test Year Without Gas  
Proposed Customer Migration - Maltby on AWID

Line No.	Description	Total Company	Residential (48,283.53)	Comm. & Indus. (31,365,516.1)	Large Volume (41)	Interruptible Sales (85)	Limited Interruptible (6)	Non-Exclusive Interruptible Sales (87)	Transport & Contracts (90)	CNG Services (90)	Rentals (91)	Interruptible Transport (85)	Non-Exclusive Inter Transport (87)
(a)	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1	Rate Base	\$ 2,247,142,618	\$ 1,523,821,519	\$ 551,779,322	\$ 67,034,578	\$ 8,817,809	\$ 14,075,030	\$ 16,925,407	\$ 19,680,091	\$ 534,274	\$ 44,654,690	\$ 19,818,474	\$ 21,571,807
2	Plant Service	(77,227,602)	(516,755,930)	(101,670,630)	(40,746,130)	(2,851,115)	(4,571,174)	(3,451,284)	(8,134,448)	(98,048)	(19,215,595)	(4,203,930)	(6,559,598)
3	Accumulated Reserve	(160,120,115)	(109,328,787)	(46,037,114)	(1,159,315)	(529,294)	(849,688)	(1,324,439)	(1,179,909)	7,603	(2,314,758)	(1,340,207)	(1,692,922)
4	Other Rate Base Items	\$ 1,489,892,641	\$ 912,759,142	\$ 313,271,389	\$ 41,836,428	\$ 9,539,410	\$ 8,710,182	\$ 8,819,879	\$ 32,213,212	\$ 447,143	\$ 21,564,637	\$ 12,315,334	\$ 13,720,318
5	TOTAL REVENUE	\$ 358,152,283	\$ 243,229,930	\$ 86,802,059	\$ 13,771,018	\$ 1,207,861	\$ 3,575,539	\$ 2,439,419	\$ 3,271,144	\$ 28,981	\$ 7,788,189	\$ 4,874,459	\$ 3,792,998
6	Expenses at Current Rates	\$ 333,460,649	\$ 226,174,023	\$ 65,398,783	\$ 53,729,465	\$ 1,791,710	\$ 3,542,875	\$ 2,041,148	\$ 3,501,822	\$ 29,832	\$ 7,799,789	\$ 4,785,304	\$ 3,778,828
7	Base Rate Recoveries	\$ 6,491,844	\$ 4,814,607	\$ 1,446,076	\$ 44,583	\$ 8,081	\$ 32,861	\$ 2,271	\$ 22,222	\$ 719	\$ -	\$ 109,154	\$ 13,370
8	TOTAL REVENUE	\$ 358,152,283	\$ 243,229,930	\$ 86,802,059	\$ 13,771,018	\$ 1,207,861	\$ 3,575,539	\$ 2,439,419	\$ 3,271,144	\$ 28,981	\$ 7,788,189	\$ 4,874,459	\$ 3,792,998
9	Operating Income - Current	\$ 80,791,730	\$ 56,652,982	\$ 12,570,146	\$ 6,226,008	\$ 889,852	\$ 1,759,571	\$ 1,503,230	\$ (62,826)	\$ (2,120,153)	\$ (2,150,610)	\$ 1,738,118	\$ 1,438,118
10	Current Ratio of Return	6.933%	5.133%	4.013%	34.881%	12.451%	20.163%	10.807%	-7.342%	-14.169%	-9.155%	17.781%	10.481%
11	Calculation of Rate Schedule Revenue Requirement at Equal Rates of Return												
12	Required Return	8.000%	8.000%	8.000%	8.000%	8.000%	8.000%	8.000%	8.000%	8.000%	8.000%	8.000%	8.000%
13	Required Operating Income	\$ 18,071,873	\$ 79,486,578	\$ 26,841,338	\$ 5,512,107	\$ 476,303	\$ 476,303	\$ 476,303	\$ 476,303	\$ 38,076	\$ 1,800,870	\$ 1,083,419	\$ 1,179,907
14	Operating Income (Deficiency)/Surplus	\$ (35,339,241)	\$ (22,044,974)	\$ (14,371,692)	\$ 2,853,769	\$ 1,007,917	\$ 1,007,917	\$ 169,198	\$ 467,884	\$ (100,807)	\$ (4,070,624)	\$ 1,135,272	\$ 288,161
15	Revenue (Deficiency)/Surplus	\$ (56,770,934)	\$ (38,795,312)	\$ (21,102,630)	\$ 3,040,521	\$ 228,171	\$ 1,237,343	\$ 144,860	\$ 482,611	\$ (132,106)	\$ (8,461,101)	\$ 1,847,113	\$ 214,045
16	Revenue Requirement	\$ 916,634,217	\$ 288,127,812	\$ 87,935,190	\$ 10,723,127	\$ 1,571,680	\$ 2,308,152	\$ 1,807,759	\$ 3,748,533	\$ 161,759	\$ 13,188,898	\$ 3,527,349	\$ 3,574,368
17	Revenue Other Than Rate Base Rev.	\$ 2,911,844	\$ 1,614,507	\$ 1,446,076	\$ 44,583	\$ 8,081	\$ 32,861	\$ 2,271	\$ 22,222	\$ 719	\$ -	\$ 109,154	\$ 13,370
18	Rate Schedule Revenue Requirement	\$ 919,546,061	\$ 290,742,319	\$ 89,381,266	\$ 10,767,710	\$ 1,579,761	\$ 2,341,013	\$ 1,810,030	\$ 3,780,755	\$ 162,478	\$ 13,189,617	\$ 3,636,503	\$ 3,587,738
19	Deficiency/Surplus % of Sales & Trans Rev	17.02%	11.23%	32.27%	-22.16%	-13.02%	-34.08%	-7.16%	-12.35%	458.81%	-60.33%	28.27%	-5.68%
20	Expenses at Required Return	\$ 109,200,256	\$ 81,082,589	\$ 21,581,832	\$ 2,275,940	\$ 451,207	\$ 802,356	\$ 517,419	\$ 843,843	\$ 53,697	\$ 933,750	\$ 898,781	\$ 781,541
21	Operator and Maintenance	\$ 9,429,840	\$ 6,481,728	\$ 2,314,550	\$ 2,650,926	\$ 348,282	\$ 419,634	\$ 603,011	\$ 51,952	\$ 9,243,228	\$ 815,672	\$ 815,672	\$ 815,672
22	Depreciation Expense	\$ 30,339,472	\$ 19,970,265	\$ 7,481,107	\$ 183,945	\$ 147,307	\$ 273,911	\$ 414,3	\$ 414,3	\$ 181,938	\$ 13,188,898	\$ 281,981	\$ 304,827
23	Income Taxes	\$ 4,810,137	\$ 28,077,707	\$ 9,536,862	\$ 1,277,736	\$ 21,373	\$ 178,373	\$ 375,703	\$ 13,620	\$ 378,289	\$ 60,338	\$ 380,353	\$ 422,865
24	TOTAL EXPENSES - Required	\$ 280,475,243	\$ 185,632,276	\$ 60,954,351	\$ 7,161,020	\$ 1,075,387	\$ 1,619,548	\$ 1,260,192	\$ 2,208,197	\$ 123,882	\$ 11,299,279	\$ 2,463,328	\$ 2,389,438
25	Rate Schedule Revenue at Proposed	\$ 360,201,165	\$ 285,385,615	\$ 81,586,111	\$ 13,728,982	\$ 1,767,814	\$ 3,240,809	\$ 2,423,842	\$ 4,767,740	\$ 34,003	\$ 8,193,691	\$ 4,765,304	\$ 4,022,811
26	Other Revenue	\$ 2,911,844	\$ 1,614,507	\$ 1,446,076	\$ 44,583	\$ 8,081	\$ 32,861	\$ 2,271	\$ 22,222	\$ 719	\$ -	\$ 109,154	\$ 13,370
27	Revenue as Proposed	\$ 363,113,009	\$ 287,000,122	\$ 83,032,187	\$ 13,773,565	\$ 1,775,895	\$ 3,273,670	\$ 2,426,113	\$ 4,790,003	\$ 34,725	\$ 8,193,691	\$ 4,874,459	\$ 4,036,181
28	Proposed Revenue Excess	\$ 56,710,506	\$ 39,462,592	\$ 19,176,328	\$ 127	\$ (25,900)	\$ (902,289)	\$ 99,044	\$ 550,209	\$ 5,074	\$ 409,802	\$ -	\$ 843,183
29	Proposed Revenue - Revenue Requirement	\$ 418,462,199	\$ 278,011,222	\$ 83,011,197	\$ 13,774,175	\$ 1,767,895	\$ 3,273,261	\$ 2,426,113	\$ 4,689,983	\$ 34,725	\$ 8,193,691	\$ 4,874,459	\$ 4,036,181
30	Current Revenue to Cost Ratio	0.85	0.85	0.78	1.28	1.14	1.52	1.14	1.14	0.18	0.50	1.39	1.00
31	Parity Ratio	1.00	1.00	0.88	1.59	1.34	1.78	1.26	1.34	0.21	0.69	1.63	1.24

**Puget Sound Energy**  
**2007 Gas General Rate Case**  
**Test Year Ended September 2007**  
**Comparison of PSE and NWIGU Rates for 85, 87 & 57**

Description	Units	PSE Present Rates	PSE Proposed Rates	NWIGU Proposed Rates	NWIGU Difference	PSE Difference	Design Difference
<b>Schedule 85/85T</b>							
Basic Charge - Sales	Bills	\$500.00	\$750.00	\$500.00	\$0	\$95,750	(\$95,750)
Basic Charge - Transportation	Bills	\$900.00	\$1,050.00	\$900.00	\$0	\$222,000	(\$222,000)
Demand Charge	Demand	\$1.02	\$1.50	\$1.02	\$0	\$292,836	(\$292,836)
Sales Procurement Charge	Therms	\$0.00650	\$0.00500	\$0.00650	(\$0)	(\$23,266)	\$23,266
Trans Balancing Service Charge		\$0.00070	\$0.00000	0.00000	(\$33,211)	(\$33,211)	\$0
Minimum Bills		\$320,874	\$320,874	\$0	(\$320,874)	\$0	(\$320,874)
Delivery Charge:							
First 25,000 Therms	Therms	\$0.10000	\$0.08111	\$0.10449	\$127,736	(\$537,400)	\$665,135
Next 25,000 Therms	Therms	\$0.05127	\$0.05751	\$0.06230	\$187,766	\$106,225	\$81,541
All over 50,000 Therms	Therms	\$0.04921	\$0.04217	\$0.05142	\$38,637	(\$123,080)	\$161,717
Calculated Total					\$354,139	(\$554,255)	\$908,394
Trans Gas Balancing Service Charge	Therms	\$0.00070	\$0.00070	\$0.00070	\$0	\$0	\$0
Total Revenues					\$54	(\$146)	\$200

<b>Schedule 87/87T</b>							
Basic Charge - Sales	Bills	\$500.00	\$750.00	\$500.00	\$0	\$47,250	(\$47,250)
Basic Charge - Transportation	Bills	\$900.00	\$1,050.00	\$900.00	\$0	\$33,000	(\$33,000)
Demand Charge	Demand	\$1.02	\$1.50	\$1.02	\$0	\$343,436	(\$343,436)
Procurement Charge		\$0.00500	\$0.00500	\$0.00500	\$0	\$0	\$0
Trans Balancing Service Charge		\$0.00070	\$0.00000	\$0.00	(\$70,285)	(\$70,285)	\$0
Minimum Bills		????	????	\$0.00	????	\$0	????
Delivery Charge:							
First 25,000 Therms	Therms	\$0.12483	\$0.14883	\$0.14033	\$120,891	\$186,877	(\$66,185)
Next 25,000 Therms	Therms	\$0.07621	\$0.09087	\$0.08567	\$71,550	\$110,880	(\$39,330)
Next 50,000 Therms	Therms	\$0.04921	\$0.05867	\$0.05532	\$79,376	\$122,897	(\$43,521)
Next 100,000 Therms	Therms	\$0.03226	\$0.03846	\$0.03627	\$75,711	\$117,059	(\$41,348)
Next 300,000 Therms	Therms	\$0.02376	\$0.02833	\$0.02671	\$95,017	\$147,197	(\$52,179)
All over 500,000 Therms	Therms	\$0.01876	\$0.02237	\$0.02109	\$132,032	\$204,564	(\$72,532)
Total Volume	Therms				\$574,378	\$889,474	(\$315,096)
Trans Gas Balancing Service Charge	Therms	\$0.00070	\$0.00070	\$0.00070	\$0	\$0	\$0
Total Revenues					\$504,093	\$1,242,877	(\$738,784)

<b>Schedule 57</b>							
Basic Charge	Bills	\$800.00	\$1,050.00	\$800.00	\$0	\$66,500	(\$66,500)
Demand Charge	Demand	\$1.02000	\$1.50	\$1.02	\$0	\$187,006	(\$187,006)
Delivery Charge:							
First 25,000 Therms	Therms	\$0.12483	\$0.14883	\$0.14033	\$93,381	\$144,590	(\$51,209)
Next 25,000 Therms	Therms	\$0.07621	\$0.09087	\$0.08567	\$41,678	\$64,587	(\$22,910)
Next 50,000 Therms	Therms	\$0.04921	\$0.05867	\$0.05532	\$35,672	\$55,230	(\$19,558)
Next 100,000 Therms	Therms	\$0.03226	\$0.03846	\$0.03627	\$22,588	\$34,824	(\$12,336)
Next 300,000 Therms	Therms	\$0.02376	\$0.02833	\$0.02671	\$11,317	\$17,532	(\$6,215)
All over 500,000 Therms	Therms	\$0.01876	\$0.02237	\$0.02109	\$5,193	\$8,046	(\$2,853)
Total Volume	Therms				\$209,829	\$324,910	(\$115,081)
Balancing Service Charge	Therms	\$0.00070	\$0.00000	0.00000	(\$19,577)	(\$19,577)	\$0
Calculated Total					\$190,253	\$305,333	(\$115,081)
Gas Balancing Service Charge	Therms	\$0.00070	\$0.00070	\$0.00070	\$0	\$0	\$0
Total Revenues					\$190,253	\$558,839	(\$368,586)

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I have this day served the foregoing document upon all parties of record (listed below) in these proceeding by mailing a copy via electronic mail and/or properly addressed with first class postage prepaid.

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Dated in Portland, Oregon this 30th day of May, 2008.



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Of Attorneys for the  
Northwest Industrial Gas Users