

EXHIBIT NO. \_\_\_\_\_ (WAG-1T)  
DOCKET NO. \_\_\_\_\_  
2001 PSE INTERIM RATE CASE  
WITNESS: WILLIAM A. GAINES

BEFORE THE  
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,

Complainant,

v.

PUGET SOUND ENERGY, INC.

Respondent.

DIRECT TESTIMONY OF WILLIAM A. GAINES  
ON BEHALF OF PUGET SOUND ENERGY, INC.

DECEMBER 3, 2001

1 **PUGET SOUND ENERGY, INC.**

2 **DIRECT TESTIMONY OF WILLIAM A. GAINES**

3  
4 **I. INTRODUCTION**

5 **Q: Please state your name, business address, and position with Puget Sound**  
6 **Energy, Inc.?**

7 A: My name is William A. Gaines. My business address is 411 108th Avenue N.E.,  
8 Bellevue, Washington 98004. I am Vice President Energy Supply for Puget Sound  
9 Energy, Inc. ("PSE", or the "Company").

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

12 A: Yes, I have. It is Exhibit WAG-2.

13 **Q: What are your duties as Vice President Energy Supply for PSE?**

14 A: My responsibilities include planning and management of the Company's power and  
15 natural gas supply portfolios, and associated bulk transmission and transportation  
16 arrangements.

17 **II. SUMMARY OF TESTIMONY**

18 **Q: Please summarize the contents of your testimony?**

19 A: The following is a description of the organization and content of my testimony:

20 **Section I – Introduction**

21 **Section II – Summary of Testimony**

22 **Section III – Under-Recovery of PSE Power Costs** shows that, due to  
23 extraordinary circumstances, the Company is projected to under-recover its power  
24 costs by about (i) \$63,435,000 in the two-month deferral period of January and  
25 February 2002 (as used in this testimony, "Deferral Period") and (ii) \$99,649,000 in the  
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1 eight-month interim rate relief period of March through October 2002 (as used in this  
2 testimony, "Interim Rate Period").

3 **Section IV – Creditworthiness Impacts on Power Supply** describes the  
4 Company's need to access the power and natural gas markets in connection with  
5 providing service to its customers and shows that such access depends upon the  
6 Company's financial health as reflected by its creditworthiness.

7 **III. UNDER-RECOVERY OF PSE POWER COSTS**

8 **Q: For the period January 1, 2002 through October 31, 2002, are the Company's**  
9 **power costs projected to exceed those power costs reflected in current rates?**

10 A: Yes. I have quantified projected power supply costs of the Company for that period in  
11 Exhibit WAG-3. That exhibit calculates Unrecovered Power Costs for that period, the  
12 amount by which the Company's projected power costs exceed the power costs  
13 reflected in the Company's rates. That exhibit shows Unrecovered Power Costs of  
14 (i) \$63,435,000 in the Deferral Period and (ii) \$99,649,000 in the Interim Rate Period.  
15 The rates (after adjustment for revenue-sensitive items) necessary to collect these  
16 amounts spread over the projected load for the Interim Rate Period are (i) 5.67 mills  
17 per kWh for Unrecovered Power Costs in the Deferral Period and (ii) 8.90 mills per  
18 kWh for Unrecovered Power Costs in the Interim Rate Period.

19 **Q: Please describe the circumstances that give rise to this under-recovery.**

20 A: A dramatic change in the wholesale power markets in 2000-2001 (coupled with very  
21 poor hydroelectric generating conditions) gave rise to this under-recovery.

22 (i) In 2000, market power prices rose (and power supply  
23 availability in the region tightened) dramatically. Natural gas market prices  
24 rose as well, but the increases were not as drastic as the increases in spot  
25 market power prices.

1 (ii) In the summer of 2001, market power prices collapsed even  
2 more dramatically. Natural gas market prices also declined.

3 The cumulative effect of these extraordinary circumstances has been to  
4 undermine the Company's ability to offset escalating basic power supply costs with  
5 margins from wholesale power sales. Against a backdrop of unprecedented volatility  
6 and very poor hydroelectric generating conditions, the Company's basic power supply  
7 costs increased substantially (notwithstanding the recent drop in wholesale spot market  
8 power prices). This is reflected by the fact that the Company's Projected Power Unit  
9 Costs for the January through October 2002 period (see Exhibit WAG-3,  
10 Spreadsheet A) are 3.5¢/kWh, whereas the corresponding power costs for a period  
11 (July 2000 through June 2001), when the Company was able to use healthy margins in  
12 wholesale prices to offset power costs, were 2.3¢/kWh.

13 The market power prices during the mid-2000 to mid-2001 period enabled the  
14 Company to offset these escalating basic power supply costs by allowing the Company  
15 to sell surplus power at a healthy margin. More fundamentally, the spark spread was  
16 very large during this period. (In general, the spark spread represents the amount by  
17 which the spot market power price exceeds the variable operating cost of a natural gas-  
18 fired generator.) The large spark spread during this period allowed the Company to  
19 economically operate its simple cycle combustion turbines which, because of the high  
20 spark spread, could generate electricity at a cost far below the then-prevailing market  
21 price. (These simple cycle combustion turbines are an important element of the  
22 Company's power resource portfolio and are available to meet extreme peak demand  
23 during cold weather and to provide back-up supply in the event of poor hydroelectric  
24 conditions.) During the mid-2000 to mid-2001 period, the Company's simple cycle  
25 combustion turbines operated at a high capacity factor, and the high spark spread  
26 allowed these units to operate at a cost well below the then-prevailing market price and

1 thereby helped offset the escalation in the Company's basic power supply costs. By  
2 contrast, a number of other utilities were forced to seek substantial rate increases during  
3 that period, often caused in substantial part by reliance on the spot power markets for a  
4 portion of their power supply needs.

5 Faced with extraordinary volatility and high prices in the wholesale market in the  
6 mid-2000 to mid-2001 timeframe, the Company secured several fixed price  
7 commitments for natural gas supply for generation the Company needed to have  
8 available for its retail loads.

9 The ability of the Company to use the high spark spread during the mid-2000 to  
10 mid-2001 period to offset escalating base power supply costs was particularly  
11 important in light of the merger Rate Plan. The volatility and level of wholesale market  
12 prices during that period far exceeded the historic volatility that had been experienced at  
13 the time of the agreement of the parties to the Rate Plan and under the Company's  
14 merger order in 1997.

15 The ability of the Company to use surplus sales to offset the escalation of the  
16 Company's basic power supply costs unexpectedly changed when wholesale market  
17 prices and the spark spread experienced an extraordinary decline in the summer of  
18 2001. The consequences of these events are affecting the Company's power costs to  
19 the point where the Company's Underrecovered Power Costs are (i) \$63,435,000 in  
20 the Deferral Period and (ii) \$99,649,000 in the Interim Rate Period.

21 **Q: Please describe the calculation of the Company's Unrecovered Power Costs for**  
22 **those periods?**

23 A: The calculation of Company's Unrecovered Power Costs for those periods is described  
24 in Exhibit WAG-3. These power costs consist of purchase and interchanged power,  
25 wheeling and non-core gas and other fuel for electric generators, reduced by sales to  
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1 other utilities. The calculations are based on 40 years of streamflow data, which were  
2 analyzed using the Aurora model. This model is described in Exhibit WAG-4.

3 **IV. CREDITWORTHINESS IMPACTS ON POWER SUPPLY**

4 **Q: Is there volatility in the Company's energy loads and resources?**

5 A: Yes. For example, the Company's loads are temperature-dependent and its  
6 hydroelectric generating resources are weather-dependent. In an average year, the  
7 Company's hydroelectric resources provide approximately 7,700,000 MWh of energy  
8 (approximately 6,300,000 MWh from long-term purchases from Mid Columbia  
9 hydroelectric projects and approximately 1,400,000 MWh from production at PSE's  
10 owned Westside hydroelectric resources). However, under very dry or very wet  
11 conditions, production from these resources can vary from approximately 5,600,000 to  
12 approximately 9,800,000 MWh annually. Moreover, the Company's electric energy  
13 load can vary up or down by as much as 1000 MWh in a single day for each one  
14 degree change in temperature. The average temperature in the Company's service area  
15 for a winter month can vary as much as plus or minus eight degrees, and the average  
16 temperature in the Company's service area for a winter day can vary as much as much  
17 as plus or minus thirteen degrees. Any deficiency or surplus of power supply must be  
18 purchased or disposed of in the wholesale power markets.

19 **Q: What is the effect of this volatility on the Company's need to access the power  
20 and natural gas markets?**

21 A: In providing service to its retail customers, the Company must continually balance its  
22 resources with its loads. Participation in the power and natural gas markets is an  
23 essential element of the Company's ability to achieve that balance and discharge its  
24 public service responsibility, in light of the volatile nature of the Company's loads and  
25 resources. Participation in such markets is also essential if the Company is to have the  
26 ability to hedge risks of market volatility.

1 **Q: Does the Company's access to the power and natural gas markets depend on**  
2 **the Company's financial health, as indicated by its creditworthiness?**

3 A: Yes.

4 **Q: With the continuation of Unrecovered Power Costs, will the Company's access**  
5 **to the power and natural gas markets be impaired?**

6 A. Yes. During the period since the Company's last general rate case, the power and  
7 natural gas markets have become much more developed. Counterparties now routinely  
8 review a company's financial health, as indicated by its creditworthiness and other  
9 indicators, to determine whether and on what terms to enter into transactions, physical  
10 or financial, with such company. Satisfaction of such review has become a routine  
11 requirement of counterparties in the wholesale markets.

12 These requirements are reflected in the standardized contracts used in, and in  
13 conventions applicable to, the power and natural gas markets. For example, the  
14 overwhelming majority of physical power transactions in the Northwest are conducted  
15 under the Western Systems Power Pool Agreement ("WSPP"). If a party to a  
16 transaction under that agreement suffers any debt downgrade to below investment grade  
17 (or further downgrade below investment grade) by at least one rating agency, such party  
18 upon request must provide "(1) the posting of a Letter of Credit, (2) a cash prepayment,  
19 (3) the posting of other acceptable collateral or security . . . , (4) a Guarantee  
20 Agreement executed by a creditworthy entity; or (5) some other mutually agreeable  
21 method . . . ." WSPP, Section 27 (Creditworthiness). As a practical matter, the  
22 triggering of such requirements for the Company (or any other company) may well  
23 require it to make cash payments, post cash collateral up to the amount of its forward  
24 obligations or attempt to purchase an expensive letter of credit.

25 **Q: What could happen to the Company's ability to access the wholesale power and**  
26 **natural gas markets if its debt were downgraded to below investment grade?**

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1 A: The Company would most probably be precluded from dealing with any number of  
2 potential counterparties for wholesale power and natural gas financial and physical  
3 transactions. To the extent the Company were able to find counterparties willing to  
4 enter into such transactions, required prepayments (or deposit of funds to induce a bank  
5 to issue a letter of credit) for transactions could well amount to tens of millions of  
6 dollars. Moreover, many existing transactions at the time of the down-rating could be  
7 subject to the Company's posting of collateral for, or accelerated payment by the  
8 Company of, forward amounts owed by the Company based on the then-current  
9 valuation of future obligations under the applicable contract. In short, the Company's  
10 power costs would increase, and its ability to enter into market transactions in  
11 connection with meeting its loads and in connection with hedging risk could be seriously  
12 impaired. The recent events regarding Enron only underscore the importance of  
13 creditworthiness in accessing the wholesale power and natural gas markets

14 **Q. Since the Company initiated a request for emergency rate relief in August**  
15 **2001, have counterparties expressed increased concern about the Company's**  
16 **creditworthiness?**

17 A. Yes. The Company has received inquiries regarding its creditworthiness and has had to  
18 provide credit enhancement. In addition to counterparties in the wholesale markets,  
19 other parties--for whom the Company's obligations to purchase generating project  
20 output provide credit support for project financing--are affected.

21 **Q. How are those other parties affected?**

22 A. A number of generating projects providing power in the Company's portfolio are owned  
23 by other parties which sell power under long-term contracts to the Company. The  
24 financing for the projects is typically supported by the Company's promise and ability to  
25 purchase and pay for the power from those projects. In that regard, the continuation of  
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Unrecovered Power Costs would make it very difficult to provide credit support necessary for financing new projects.

**Q. Does this conclude your testimony?**

A. Yes, it does.

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