Exhibit T___ (HM-1TC/HC)
Docket No. UE-031725
Witness: Henry McIntosh

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMISSION, Complainant, v. PUGET SOUND ENERGY, INC., Respondents.	DOCKET NO. UE-031725

DIRECT TESTIMONY OF

Henry McIntosh

STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

REDACTED VERSION

January 30, 2004

DIRECT TESTIMONY OF

HENRY MCINTOSH
DOCKET No. UE-031725

Q. Please state your name and business address.

A. My name is Henry McIntosh. My business address is Chandler Plaza Building, 1300 South Evergreen Park Drive SW, Olympia, Washington, 98504-7250.

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

A. I am employed by the Washington Utilities and Transportation Commission as a Regulatory Analyst. I work on energy issues.

Q. Please describe your education and relevant employment experience in the energy industry and utility regulation?

A. I received AB and MA degrees from the University of California at Riverside, and an MBA degree from the University of California at Los Angeles. With respect to my work at the Commission, I am responsible for analysis and reporting on issues in the electric and natural gas industries, review of tariff and rate case filings, review of least cost plan and request for proposal filings, and various other tasks. I have worked for R. W. Beck, an energy consulting firm; PNM

Public Service of New Mexico, an investor-owned electric and gas utility; and the Research and Planning Staff of the Missouri Public Service Commission. In all, I have approximately 28 years of experience in the energy utility industry. I have been employed by the Commission for about 10 years and have appeared in many open meetings and formal proceedings. I presented Staff testimony before the Commission in Docket No. UE-001734, involving PacifiCorp.

Q. Please explain the scope of your testimony?

A. I am responsible for analyzing Puget Sound Energy's ("PSE" or the "Company") normalized *pro forma* power supply cost based upon the new rate period and loads. In this regard, I propose three adjustments to: (1) normalize maintenance schedules for Colstrip; (2) exclude the costs of winter peaking "calls"; and (3) complete a prudence disallowance with respect to production costs at March Point II and Tenaska.

I also cover changes in the Company's full power supply portfolio, including the acquisition of a 49.85% interest in Fredrickson I. I discuss the Company's actions in acquiring this new resource and whether they were prudent and the associated costs appropriate for recovery in rates. I conclude that the acquisition was prudent and the costs reasonable.

Q. **Have you prepared an exhibit in support of your testimony?**

A. Yes. It is Exhibit __(HM-2C/HC). It shows the calculation of my three ratemaking adjustments.

FREDERICKSON ACQUISITION

Q. **In regard to PSE's proposed acquisition of a share of Fredrickson I, do you find the decision in selecting this alternative to be prudent?**

A. Yes.

Q. **What materials did you review in your analysis of the Fredrickson acquisition?**

A. I reviewed testimony and exhibits of Company witnesses Mr. Markell, Mr. Gaines, Mr. Black and Ms. Ryan, as well as Company responses to data requests. I also examined the Company portfolio model in reviewing the methodology employed. Examination of data request responses about the Company's bidding work was also reviewed.

Q. **How do you define the term "prudent" for purposes of your analysis?**

A. I mean that the decision to acquire an interest in Fredrickson I was based upon appropriate, rational and reasoned methods, utilized appropriate data, and covered specific issues which the Commission listed in the 19th Supplemental Order in Docket No. UE-921262, the “Prudence Review”. I discuss these factors in more detail below. The Commission has also applied a "reasonableness" standard in assessing prudence:

> In evaluating prudency it is generally conceded that one cannot use the advantage of hindsight. The test this Commission applies to measure prudency is what would a reasonable board of directors and company management have decided given what they knew or reasonably should have known to be true at the time they made a decision. This test applies both to the question of need and the appropriateness of the expenditures." *WUTC v. Puget Sound Power and Light Co.,* 1st Supplemental Order at 32-33, Cause No. U-85-54 (1984).
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> The Commission relies upon a reasonableness standard. The company must establish that it adequately studied the question of whether to purchase these resources and made a reasonable decision, using the data and methods that a reasonable management would have used at the time the decisions were made. *WUTC v. Puget Sound Power & Light Co*., 19th Supplemental Order at 10, Docket No. UE-921262, *et al*. (1994), citing, 2nd Supplemental Order, Cause No. U-85-53 (1986) and 5th Supplemental Order, Cause No. U-83-26 (1984).

Q. Is the acquisition of a least cost resource a logically necessary result of a prudent decision?

A. No. Time may show that selecting a resource other than Fredrickson would have actually resulted in lower observed costs. The prudent decision is an act circumscribed by the small time frame just surrounding it.

Q. You indicated that you relied upon the Commission's 19th Supplemental Order in the Prudence Review?

A. Yes.

Q. What specific guidance does this Order provide for the analysis of PSE's decision to acquire Fredrickson I?

A. It enumerates dispatchability, end-effects and fuel price risk among other variables for consideration. It also discusses the value of market-based price discovery through bidding. Further, it suggests that the methods and processes of decision-making are important to the scope of a prudence review. This list constitutes the basis for the scope of the Staff review in this case.

Q. What methods were most important in PSE's decision-making?

A. The most important method was the use of the Portfolio Analysis Modeling tool. This tool allowed hourly dispatch modeling of each resource and contract alternative. The second most important tool was the process of solicitation. The third most important tool was the use of scenarios of hydro conditions and fuel costs.

Q. Did PSE consider end-effects and reliability?

A. Yes.

Q. Did PSE consider location with respect to control area and transmission constraints?

A. Yes.

Q. Did PSE consider that fuel prices may vary over the life of the resource?

A. Yes.

Q. Did PSE view the results under varying hydrological conditions?

A. Yes.

Q. Did you find any evidence of systematic bias in favor of or against a particular choice of technology or strategy?

A. No.

Q. Was risk appropriately considered for each resource modeled?

A. Yes. The risk associated with gas fuel market price and electric market price was modeled. Further, the effect of hydrological conditions was modeled by using market demand under average 40-year hydro conditions. These elements of risk to the cost of power supply are the major considerations of operational risk. Carbon tax scenarios were also considered as an ownership risk.

Q. Did you think of any improvements in the methods used by PSE for the resource selection?

A. Yes. PSE did not consider variation within hourly core loads. An improvement of analysis would be obtained by simulating the variation around hourly demand. This would require greater computation time, but would allow for enhanced risk assessment.

Q. Please summarize the basis for your conclusion that the acquisition of Fredrickson I by PSE was a prudent decision.

A. The Company had a clear documented need for power in the near term. It also had a deliberate, organized process for soliciting and evaluating bids. It examined a self-build option. It examined contract purchases and ownership of new resources. It kept detailed records of crafting the evaluation method, data acquisition, and resource evaluation. The evaluation process was largely a matter of modeling that can be replicated.

Q. What do you conclude about the reasonableness of the cost of Fredrickson I?

A. I reviewed PSE's comparison of Fredrickson I to other resources. I have compared its average $/kW cost to averages currently available to me. For the 2002-2003 period, $650/kW is reasonable. I conclude that Fredrickson's price level, **[XHCX]** is reasonable.

I have not included any review of the future gas fuel cost since there is no specific contract in place. Like many gas turbines, Fredrickson is fueled by commodity deals, which include month-ahead, year-ahead and other products. In the current climate of energy markets, this is not surprising.

Q. Does the fact that PSE does not now own Fredrickson I impact the Company's specific approach to fueling that resource today?

A. Since the Company does not currently have ownership with certainty, it cannot be expected to have any specific approach in place now.

Q. How will regulators be able to protect the public interest when such a strategy is or is not actually implemented?

A. As with other fuel issues, prudence of any specific or general strategy for supplying Fredrickson I can be reviewed in future proceedings, including, but not limited to, general rate cases, PCAs, or PCORCs.

Q. What kinds of elements might be present in such a strategy?

A. Reasonable and rational strategies could be based on many things. But, they will all be influenced by market opportunities, the characteristics of the specific demand experienced, and the Company's financial condition at the time.

Q Does this conclude your discussion of the Frederickson acquisition?

A. Yes. I will now turn to my three power cost adjustments.

PRO FORMA POWER COST ADJUSTMENTS

Q. What do you recommend as adjustments to the pro forma cost of power in the PCORC rate year?

A. First, I recommend an adjustment of **[XX C XXX]** dollars to normalize maintenance schedules for Colstrip 3. PSE used very fact-based, planned maintenance schedules for large units like Colstrip. The Company modeled the unusual event of a plant upgrade by adding **[C]** hours above the **[XCX]** standard outage period. Staff believes that a more normal availability should be modeled. Second, Staff believes that the costs of "winter peaking" calls should not be included in base power supply. Instead of the **[XX HC XX]** premium cost proposed by PSE, we propose that the historical average of such costs be used and that amounts in excess of that be addressed in the PCA process. This proposal results in an adjustment of **[XX HC XX]**.

Finally, I propose two adjustments for March Point II and Tenaska that were not made by PSE. They amount to $576,000. These adjustments are supported by the 19th and 20th Supplemental Orders in the Prudence Review. The adjustments relate to the cost of replacement power for these units when they are displaced.

All of my adjustments are calculated in Exhibit __(HM-2C/HC).

MAINTENANCE SCHEDULE NORMALIZATION ADJUSTMENT

Q. Where does your adjustment for maintenance normalization appear in Mr. Russell's exhibits?

A. It appears at Exhibit No.__ (JMR-2), page 4, column 9, line 2, in part, and, in part, at column 9, line 6.

Q. Would you say that power plant maintenance within the power cost model database is accurate and reflects attention to detail?

A. Yes, but this accuracy causes a problem in normalization, which Staff's adjustment corrects. The goal of the PCORC, as it is with other historical costing methods for computing revenue requirements, is that the costs represented there will be a good fit for several future years, the intended duration of the rate schedules that will recover the cost estimates. By adjusting the planned outages in a way that makes the equivalent availability match the historical patterns, the behavior of the plants reflects a more normal level of costs over the rates effective period.

Q. But does it not change the estimated market price since it departs from known events, which the market will internalize?

A. Yes, but the effect is small. The market is supplied by many sellers, not just PSE. Overall, the effect is to reduce the normalized cost of power that PSE will face in the next few years.

Q. What maintenance adjustment are you making?

A. I adjust the maintenance at Colstrip 3 in the rate year down to the standard **[XCX]** pattern. This reflects the fact that an extra **[C]** hours estimated by PSE to accommodate a particular and unusual upgrade at the plant should not be made in a normalized ratemaking analysis. If the extended down time actually occurs, it can be recovered in another proceeding in an appropriate manner. The net impact of this change is **[XXCXX]**. The adjustment is composed of **[XXXCXXX]** additional expense to Account 501 Steam Fuel and **[XXXCXXX]** less expense to Account 555 Purchase Power.

WINTER CALLS ADJUSTMENT

Q. What is a Winter Capacity "Call?"

A. It is the right, but not the obligation, to purchase a certain quantity of power at certain hours of certain months at a known price called the strike price. The price of this option is the "premium." PSE included **[XXXHCXXX]** for such premium payments.

Q. Have the peaking options like winter calls been used in PSE least cost plans?

A. Yes, they are conceived of as a special class of peaking resource.

Q. Are the calls like a resource, say a forward contract, which lasts less than 2 years?

A. Yes, the calls expire after each winter season and must be renegotiated or repurchased each year. So, they are very short-lived resources.

Q. In particular, what is the strike price PSE has been offered for the projected [XXXHCXXX] of budgeted premium payments?

A. PSE has discovered a strike price of **[XXHCX]** for the winter peak hours. This is not unusual for Mid-C winter prices. But, the right to this power with certainty for all these hours costs **[XXHCXX]**, if PSE exercises all rights and takes the power.

Q. If the Company plans to use options to help meet demand, why shouldn't it be compensated?

A. PSE should get recovery in base rates (PCORC) of the normalized costs. The historical average cost of prudently obtained, exercised options should be included. If options cost more than this, PSE can seek recovery in a later proceeding. I have used the actual expenditures of the test year and the expenditures since then to compute an estimate of the normalized amount.

Q. What is the adjustment recommended for this item?

A. It is **[XXX HC XXX]** and it is included in Exhibit___(JMR-2), page 4, column 9, line 6.

MARCH POINT PHASE II ADJUSTMENT

Q. What issues are present at this time in the production cost of the March Point II contract?

A. The Commission's 19th and 20th Supplemental Orders in the Prudence Review require a prudence disallowance that has heretofore not been applied. It comes from disallowing, per the Commission Orders, 3% of the contract's net price defined as contract price plus displacement costs plus replacement power costs. (See 19th Supplemental Order at 32 and 20th Supplemental Order at 22.) PSE adjusted out 3% of the contract expenses, but not the net costs. (See Exhibit __(WAG-15).) My adjustment completes the disallowance ordered for March Point II. The adjustment is a disallowance of $235,000 and is reflected in Exhibit__(JMR-2), page 4, column9, line 6.

TENASKA REPLACEMENT POWER ADJUSTMENT

Q. What issues are present at this time regarding the production cost of the Tenaska contract, not addressed by other Staff witnesses?

A. As in the case of the March Point II contract, the same Commission's 19th and 20th Supplemental Orders require a prudence disallowance that has heretofore not been applied. Again, the adjustment arises from disallowing, per the Commission Orders, 1.2% of the contract's net price, defined as the contract price plus displacement costs plus replacement power costs. PSE has adjusted out 1.2% of the contract expenses, but not the net costs. (See Exhibit __(WAG-15).) My adjustment completes this particular disallowance required for Tenaska. The adjustment is a disallowance of $ 341,000 and is reflected in Exhibit __(JMR-2), page 4, column 9, line 6.

Q. Does this conclude your testimony?

A. Yes.