

Exhibit T- ____ (HCC-T)

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

KIMBERLY-CLARK TISSUE COMPANY

Complainant

v.

PUGET SOUND ENERGY, INC.

Respondent

Docket No. UG-990619

SUPPLEMENTAL TESTIMONY OF HEIDEMARIE C. CASWELL

ON BEHALF OF PUGET SOUND ENERGY, INC.

October 11, 1999

SUPPLEMENTAL TESTIMONY OF HEIDEMARIE C. CASWELL

Q. Please state your name and business address.

A. My name is Heidemarie C. Caswell. I have testified earlier in this proceeding on behalf of Puget Sound Energy, Inc. ("PSE"). My address is 815 Mercer Street, Seattle, Washington.

Q. Can you summarize the major points of your supplemental testimony?

A. Upon review of Mr. Owens' deposition testimony, Mr. Owens background and experience do not contain the qualifications that would allow him to opine on whether PSE's continued curtailment of interruptible gas and transportation customers was reasonable. He is not experienced in determining whether a local gas distribution company ("LDC") has sufficient distribution capacity, nor has he managed a gas distribution system, or been involved as an engineer in the operations and planning for an LDC. In addition, he is unfamiliar with PSE's gas distribution system and its customers' usage, and with the basis for PSE's obligation to serve interruptible gas sales and interruptible gas transportation customers.

Q. Does Mr. Owens' deposition testimony demonstrate that he has understanding of the factors that must be evaluated to determine whether an LDC has sufficient distribution capacity to serve its firm and interruptible customers?

A. No, a review of Mr. Owen's deposition testimony suggests that he does not

understand how an LDC uses the information that was provided to Kimberly-Clark by PSE in response to data requests, and in the deposition testimony of Heidemarie C. Caswell and Timothy J. Hogan, to determine distribution system capacity constraints. Mr. Owens testified that in determining that PSE's gas distribution system was stressed he did not rely on Stoner models that PSE provided, and about which I testified in my deposition. Stoner models, which are piping network simulations using various test conditions, are critical to evaluate distribution system capacity. Throughout the gas industry, two primary modeling softwares are used; however, the majority of gas distribution companies use software from Stoner Associates, Inc. This software produces the models, which I refer to in my testimony as Stoner models.¹ Furthermore, he should have looked at the forecasted temperatures that PSE had at the time, and considered them in the context of the Stoner models. PSE provided to Kimberly-Clark both WNET weather forecasts and as well as the forecasts in Mr. Riley's emails. One of these emails is attached to Mr. Owen's testimony as an exhibit. See Exhibit _ (JTO-2). A proper evaluation of distribution system capacity constraints would have included these as well as an assessment of SCADA data, customer service calls (customer complaints), to a limited degree, pen gauge

¹ It is my understanding, that of the approximately 130 distribution companies with greater than 50,000 customers operating throughout the United States and Canada, 115 of these companies use Stoner software. The remaining companies would largely rely on some other type of modeling software.

evaluations, and the priority of service established in PSE's tariff, among other things.

Q. What are the limitations of SCADA or pen gauges in evaluating distribution system capacity constraints?

A. In order to evaluate distribution system capacity, pressures, and flows, and their locations within the distribution system must be considered. Additionally, customer demands consistent with the event being evaluated must be overlaid in order to understand whether the system is under stress and the degree to which it has been stressed. Thus, any pen gauge or SCADA data must be combined with information reflected in Stoner models.

Q. Mr. Owens used PSE's pen gauges, solely, to determine the distribution system was under stress, but aside from describing how these devices work, did nothing to identify their use within the distribution system. Can you identify what value pen gauges have and their applicability within the gas distribution system, in determining system stress and capacity?

A. Yes. Pen gauges have a fairly limited use within the gas distribution system. They have become somewhat obsolete with the introduction of SCADA, which facilitates a "real-time" understanding of pressures, flows, temperatures and other distribution system parameters. Pen gauges, in contrast, are useful primarily in determining if a system overpressure or total loss of pressure occurred. After the fact, they can also provide a baseline against which to validate system flow models, if no SCADA sites exist nearby.

Q. What do Exhibit _ (JTO-2) and Exhibit_ (PAR-3) demonstrate?

A. Mr. Riley's emails demonstrate that on December 22, 1998, PSE was looking at a range of low temperatures from the single digits to the low 30's throughout its service territory. See Exhibit _ (JTO-2) and Exhibit _ (PAR-3). Contrary to Mr. Owen's testimony that PSE only supplied SeaTac weather forecasts, PSE supplied forecasted temperatures throughout its service territory, to the extent forecasts were still available. In addition, PSE provided actual temperatures throughout its service territory in the SCADA data it has provided and made available to Kimberly-Clark.

Q. What about Mr. Owens' reliance on actual temperatures to support his opinion that continuation of the curtailment after December 24, 1998 was not "well taken"?

A. Mr. Owens states in his deposition testimony that at the time PSE was making its decision to curtail, it would not know what the actual temperature was going to be. I am not sure why he would then rely on actual temperatures to support his position that the curtailment after December 24, 1998 was not "well taken." When Mr. Owens discusses gas price forecasts and actuals in his deposition testimony, he clearly articulates that not only weather, but other factors can influence gas price. He acknowledges the uncertainty of gas price forecasts. For some reason this understanding of the reliance which can be placed upon forecasts is lacking as he addresses SeaTac forecast and actual temperatures. He did not appear to rely at all on the

weather forecasts to evaluate PSE's distribution system capacity constraints. This action confirms his lack of understanding regarding how an LDC manages distribution system capacity.

Q. Does Mr. Owens demonstrate a lack of understanding about PSE's obligation to serve interruptible sales and interruptible transportation customers in his deposition testimony?

A. Yes. As noted by Mr. Hogan, Mr. Owens repeatedly compares restoration of firm service to resumption of interruptible service. PSE does not design its system to enable it to serve interruptible customers under all conditions. While PSE does not routinely curtail its interruptible customers, the Company does not have an obligation to provide continuous service to interruptible customers. That is why these customers are referred to as "interruptibles" and pay lower rates than firm customers. On an ongoing basis these customers must identify the risk they are willing to undertake, in order to enjoy these cost savings. The interruptions they may experience are not only weather-related, but can be associated with many other events, some of which include: (1) operations on Northwest Pipeline facilities, (2) outside damage, which PSE sustains, (3) firm customer growth, (4) changes in the operations within PSE's facilities, or (5) the addition of other customers' whose loads have a higher service priority under PSE's tariff. Any, or all of these, may increase interruptions to interruptible sales or transportation customers. Also, contrary to Mr. Owens testimony, these curtailments can be handled without opening the

Emergency Operations Center.

Q. Does this conclude your testimony?

A. Yes, it does.