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*Rebuttal Testimony of James T. Owens*

2 **Q. What is the purpose of your Rebuttal Testimony?**

3 A. *I am responding to the testimony of Puget witnesses Timothy Hogan, Heidemarie*  
4 *Caswell, Paul Riley, and William Donahue.*

5 **Q. In your direct testimony, you stated that the decision to continue the curtailment**  
6 **after December 24 was not well taken. Does Timothy Hogan's explanation of**  
7 **Puget's basis for the decision to continue the curtailment after December 24, 1998**  
8 **change your opinion?**

9 A. No. Mr. Hogan confirms that the decision to continue the curtailment over the  
10 Christmas holiday was made on December 24, 1998. That decision does not appear  
11 to have been reviewed by senior management until the following Monday, December  
12 28, 1998. Based on Puget's testimony, no one responsible for curtailment decisions  
13 (with the possible exception of Mr. Riley) was monitoring the distribution system.  
14 The utility's responsibility was to restore service to its transportation and interruptible  
15 sales customers as soon as possible. If Puget had ended the curtailment sooner, the  
16 substantial penalty to Kimberly-Clark for the period between December 25 and  
17 December 28 would have been reduced or eliminated.

18 **Q. Did the direct testimony of Puget's other witnesses change your opinion that**  
19 **Puget management did not adequately review or monitor the decision to**  
20 **continue the curtailment over the holiday weekend?**

21 A. No. The testimony of both Ms. Caswell and Mr. Hogan confirms that neither of them  
22 took any active role in monitoring the curtailment conditions from noon on December

1 24 until the morning of December 28. Mr. Riley describes in great detail the actions  
2 that he and others took up until December 24 when the decision was made to continue  
3 the curtailment over the long Christmas weekend. Although Mr. Riley states that he  
4 remained in contact with Gas Control and Gas Dispatch over the weekend, I have  
5 found almost no evidence to support his statement that the parameters did not change  
6 significantly. In fact, as I discuss in some detail below, parameters appear to have  
7 changed markedly.

8 **Ms. Caswell testified that Puget evaluates the condition of the system both at the time of**  
9 **curtailment and throughout the curtailment. Did conditions change during the**  
10 **curtailment?**

11 Yes. At the beginning of the curtailment, Puget forecasted cold weather and prepared for its  
12 arrival in their service territory. System pressures dropped as temperatures fell. Gas  
13 send-out rose. This can be seen from the pen graphs, remote telemetry unit (“RTU”)  
14 data and send-out information which Puget provided.

15 By December 24, conditions were changing. Temperatures warmed. *See*  
16 Exhibit \_\_\_ (JTO-6). Volumes of gas deliveries or Puget’s “send-out,” which is  
17 related to the stress experienced on the distribution system, markedly declined by  
18 December 25. Send-out dropped by more than half between the high point on  
19 December 21 and December 25. *See* Confidential Exhibit \_\_\_ (JTO-7).

20 System pressures, as represented by the pen graphs supplied by Puget, also  
21 rose significantly after December 24. Remote telemetry unit (“RTU”) data indicate an

1 improvement in system pressures and temperatures after December 24. Customer  
2 service calls declined markedly. The predominant key parameters that Ms. Caswell  
3 mentioned – condition of the gas distribution system, system recovery and customer  
4 usage – all seemed to have improved several days before Puget finally restored  
5 interruptible service on December 28.

6 **Mr. Hogan testified (page 8, lines 13-15) that “Given the condition of the system on**  
7 **December 24, 1998, we anticipated that the curtailment would continue through**  
8 **the peak on Monday morning.” Did the condition of the system remain the same**  
9 **after December 24?**

10 A. No. By December 24, temperatures were rising, Weathernet forecasts were for lows  
11 above freezing, distribution system low pressures were rising, and send-out dropped.

12 ***Q. Both Ms. Caswell and Mr. Riley present Stoner models to support their testimony.***  
13 ***Do the Stoner models demonstrate that Puget’s distribution system capacity was***  
14 ***inadequate to serve its firm and interruptible customers during the period between***  
15 ***December 24 and December 28?***

16 A. I cannot confirm the reliability of the Stoner models. However, the other data  
17 supplied by Puget indicates just the opposite. The RTU data, the weather data, the  
18 record of customer service calls, the PSE system send-out volumes, and the pen graph  
19 data all demonstrate that the distribution system was returning to its pre-curtailment  
20 condition between December 24 and December 28.

21 **Q. What RTU data are you referring to?**

22 **A. In a data request, Kimberly-Clark asked Puget to provide all the documents that**

1        *demonstrate “distribution capacity was insufficient” to meet the estimated*  
2        *requirements of firm and interruptible sales and transportation customers from*  
3        *December 24 to December 28, 1999. A copy of Kimberly-Clark’s data request is*  
4        *attached as Exhibit \_\_\_\_ (JTO-9).*

5                *In response to Kimberly-Clark’s data request, Puget provided RTU data for*  
6        *Kayak, Smokey Point, North Everett, and several other locations for the period*  
7        *from December 21 through December 26 and, in one case, through December 27.*  
8        *In addition, I reviewed RTU data for these same system locations for the period*  
9        *between December 16 (before the curtailment) and December 31 (after the*  
10        *curtailment).*

11                *The chart at Confidential Exhibit \_\_\_\_ (JTO-8A) shows the RTU data*  
12        *indicating minimum pressures at these locations for these dates. The chart at*  
13        *Confidential Exhibit \_\_\_\_\_ (JTO-8B) shows temperatures at the same locations at*  
14        *the time of the minimum pressures.*

15    **Q.**    **What does this RTU data indicate?**

16    **A.**    Confidential Exhibit \_\_\_\_\_ (JTO-8A) demonstrates that by December 24, system  
17        minimum pressures were on the rise. They were even higher on December 25. By  
18        December 26, the minimum pressures at these locations were at approximately the  
19        same level as before the curtailment. The RTU temperature data shown at  
20        Confidential Exhibit \_\_\_\_ (JTO-8B) similarly shows temperatures rising on  
21        December 24 and remaining at approximately 40 degrees Fahrenheit or higher by  
22        December 25.

1 Q. You mentioned the “pen graph” data. In her testimony at page 11, lines 14-25,  
2 Ms. Caswell criticizes Table 1 from your direct testimony because the “pen  
3 graphs” cover only 16 data points over a period of 10 days. Do you agree with  
4 her critique?

5 A. The data for Table I was taken directly from the pen graphs which Puget produced in  
6 response to Kimberly-Clark’s Data Request No. 1. The pen graphs were from the  
7 locations selected by Puget to demonstrate that “distribution capacity was  
8 insufficient” from December 24 to December 28, 1999.

9 Puget supplied pen graphs only for the period from December 14 to December  
10 24 for 30 locations that could be read. (Some of these locations were for higher  
11 pressure portions of Puget’s system and showed little or no pressure degradation and  
12 hence were excluded.) The information was Puget’s, and the locations were selected  
13 by Puget.

14 Q. *Have you had the opportunity to review additional pen graphs?*

15 A. Yes. On October 14, 1999, Puget supplied additional pen graphs that support my  
16 initial conclusion. The additional pen graphs were for the same locations, but  
17 included a longer period from December 6, 1998, to January 7, 1999. These pen  
18 graphs show that by December 25, distribution system pressures at these locations had  
19 returned to pressures comparable to pressures prior to the curtailment. This data is  
20 displayed on Exhibit \_\_\_\_ (JTO-11). Even though the pressures at these locations had  
21 risen to comparable pre-curtailment pressures by December 25, Puget continued the

1 curtailment until December 28.

2 **Q. Ms. Caswell points out in her testimony (page 9, line 18 - page 10, line 5) that**  
3 **curtailments are based on weather forecasts, not actual temperatures. Does this**  
4 **testimony change your opinion?**

5 A. No. Weather forecasts carry a degree of uncertainty. However, Puget's decisions  
6 during the later portion of the curtailment seem inconsistent with the forecasts that  
7 Puget provided.

8 **Q. What forecast information was provided by Puget?**

9 A. Puget did not supply actual weather forecasts, but rather a tabulation of Weathernet  
10 information. See Exhibit \_\_\_\_ (PAR-2). The Weathernet information includes daily  
11 forecasts for 24, 48, and 72 hour periods from December 15 to December 27. It also  
12 includes hourly 24 and 48 hour forecasts for the same period. In addition, Puget  
13 presented two emails containing weather forecast information that were sent from  
14 Paul Riley and Cheri Fredrick to various individuals, one early on December 22 and  
15 another one late on December 22. See Exhibit \_\_\_\_\_ (PAR-3).

16 **Q. Why do you say that Puget's conduct during the curtailment seems**  
17 **"inconsistent" with the forecasts?**

18 A. On December 18, Puget made the decision to curtail its interruptible customers  
19 beginning December 19, when the 24 hour Weathernet forecasted showed below-  
20 freezing low temperatures. By contrast, Puget continued the curtailment from  
21 December 25 to December 28, even though Weathernet forecasted much higher low  
22 temperatures for that period.

1 **Q. Please explain.**

2 A. On December 16, the 24 hour Weathernet forecasted low was 39 degrees Fahrenheit  
3 for December 17. On the same day, Weathernet forecasted 27 degrees Fahrenheit for  
4 December 18 and 24 degrees Fahrenheit for December 19. In spite of these low  
5 forecasts, Puget did not call a curtailment.

6 Puget did not decide to curtail until December 18 when Weathernet's  
7 forecasted 24 hour low was 18 degrees for December 19, its 48 hour forecasted low  
8 was 17 degrees for December 20, and its 72 hour forecasted low was 18 degrees for  
9 December 21.

10 On December 24, Puget decided to continue the curtailment even though the  
11 forecasted lows were for much warmer temperatures. On December 24, Puget had a  
12 24 hour forecast of 37 degrees for December 25, a 48 hour forecast of 35 degrees for  
13 December 26, and a 72 hour Weathernet forecast of 35 degrees for December 27.  
14 Even though these forecasts on December 24 were for substantially higher  
15 temperatures than the forecasts on December 16 – when no curtailment was called –  
16 and higher than the forecasts on December 18 when Puget called the curtailment,  
17 Puget extended the curtailment on December 24.

18 By December 25, actual temperatures were significantly warming, and the  
19 Weathernet forecasts showed a return to more normal temperatures. On Christmas  
20 day, the actual SeaTac low temperatures had risen 21 degrees from the low on  
21 December 23, yet the curtailment continued. Actual low temperatures at SeaTac for

1 December 26, 27, and 28 were all in the 40's. The actual high temperature on  
2 December 27 when the curtailment was still in effect reached 52 degrees. The actual  
3 temperatures are shown on Exhibit \_\_\_\_\_ (JTO-6).

4 **Q Mr. Riley testified (page 9, lines 15-17) that past inaccuracies in the forecasts**  
5 **made them less reliable. He presents a chart at Exhibit \_\_\_\_ (PAR-6) to**  
6 **illustrate this point. Do you agree?**

7 A. Not entirely. There are certainly other ways to look at the forecasts than the way the  
8 information is presented on Mr. Riley's chart. The most accurate forecasts available  
9 to Puget were the shortest term or 24 hour forecasts. At least in part, Puget made its  
10 decision on December 18 to start the curtailment using the 24 hour forecast which  
11 showed very cold temperatures for the next day. As it turns out, the 24 hour forecasts  
12 were quite accurate. Although the 48 and 72 hour forecasts were somewhat less  
13 reliable, there was still a close correlation between the actual temperatures and the  
14 forecasted lows. Exhibits \_\_\_\_ (JTO-10A), (JTO-10B), and (JTO-10C) illustrate this  
15 close correlation between the actual and the forecasted low temperatures for the  
16 period from December 15 to December 27.

17 **Q. What does Puget's evidence of customer complaints show?**

18 A. Mr. Riley testified (page 6, lines 6-7) that customer service calls often indicate  
19 pressure problems and stress on areas of the distribution system. If this is correct, the  
20 evidence of customer service calls indicates that conditions on the distribution system  
21 improved considerably from December 24 to December 27. Based on Mr. Riley's



1 testimony, there were hundreds of customer service calls during the days when the  
2 weather was very cold as follows:

3	12/20	433
4	12/21	971
5	12/22	754
6	12/23	582.

7  
8 As the weather began to warm up, Exhibit \_\_\_\_ (PAR-4) indicates that the number of  
9 customer service calls dropped dramatically:

10	12/24	273
11	12/25	58
12	12/26	171
13	12/27	28.

14  
15 Mr. Riley does not explain why the number of customer service calls jumped again to  
16 620 on December 28, the day Puget ended the curtailment. *See* Exhibit \_\_\_\_ (PAR-  
17 4).

18 **Q. Ms. Caswell states her concern (pp. 14-16) that an immediate ramp-up of**  
19 **Kimberly-Clark's demand can severely deplete the distribution system and can**  
20 **negatively affect service to firm customers, even in the absence of extreme cold**  
21 **or curtailment conditions. Did this happen?**

22 **A. *If it did, Kimberly-Clark was not notified. Kimberly-Clark personnel have testified***  
23 ***that when they found it necessary to resume gas consumption above firm amounts***  
24 ***on December 24, they were in contact with Puget Gas Control and their Account***  
25 ***Manager. Kimberly-Clark asked to be informed if pressure problems developed.***  
26 ***They told Puget that they would shut down in that event. No notice of pressure***  
27 ***problems was received from Puget.***

1 **Puget's witness, W.F. Donahue, implies in his testimony (page 9, lines 17-19) that**

2 **Kimberly-Clark carelessly allowed a negative imbalance to occur during the**

3 **curtailment. Is this correct?**

4 A. No. The curtailment began on December 19, 1998. On that date Kimberly-Clark's  
5 imbalance had risen to a positive 23,157 therms. It remained positive throughout the  
6 curtailment and was finally reduced to 30,920 on December 31, 1998. Kimberly-  
7 Clark corrected the negative imbalance referred to by Mr. Donahue, and, in fact, had a  
8 positive imbalance during the curtailment.

9 **Q. Mr. Donahue also states that Kimberly-Clark's positive imbalance may have**  
10 **been a hindrance to Puget's ability to exercise cost-efficient gas supply**  
11 **management. Please comment on Mr. Donahue's remark.**

12 A. Kimberly-Clark delivered more gas to Puget on December 19, 20, and 21 than it  
13 consumed. Puget was making off-system gas sales during the natural gas price peak  
14 that occurred between December 19 and December 23. The graph attached to my  
15 testimony as Confidential Exhibit \_\_\_ (JTO-12) shows Puget's off-system gas sales  
16 during this time frame. The impact to Puget's ability to exercise cost-efficient gas  
17 supply management should have been minimal.

18 **Mr. Hogan states (page 10, lines 16-17) that Puget met its service obligations to**  
19 **interruptible customers. Do you agree with this conclusion?**

20 No. Puget's obligation is to provide gas sales and/or gas transportation service to all  
21 its customers, including interruptible customers. When conditions warrant, the tariff

1 permits Puget to interrupt service to its interruptible sales and transportation  
2 customers. Rate Schedule 57 permits Puget to curtail transportation customers “if . . .  
3 the company’s distribution capacity is insufficient to meet estimated requirements for  
4 all customers on interruptible sales and transportation service.” See Exhibit \_\_\_\_  
5 (JTO-13). However, Puget’s discretion to curtail must be based upon sound judgment  
6 and a reasonable assessment of the distribution system’s capacity. When Puget  
7 decided to curtail its interruptible customers on December 19, the decision was based  
8 on an appropriate process, involving conferences with senior management and  
9 technical analysis.

10 Puget does not seem to have devoted the same level of consideration and  
11 analysis to ending the curtailment. Instead, Puget management made the decision  
12 about noon on Thursday, December 24 to extend the curtailment over the long  
13 Christmas holiday weekend. Little (if any) review or analysis seems to have occurred  
14 after that time.

15 I believe that Puget had an obligation to promptly restore service to  
16 interruptible customers as soon as conditions improved. Instead, Puget waited until  
17 Monday, December 28, to restore service to its interruptible customers. In my view,  
18 Puget’s conduct fell short of its obligation to provide adequate service to its  
19 interruptible customers.

20 **Q. Does that conclude your testimony?**

21 A. Yes.