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| WASHINGTON UTILITIES AND |) | |
| TRANSPORTATION COMMISSION |) | |
| |) | |
| Complainant, |) | Docket No. UE-070565 |
| |) | |
| v. |) | |
| |) | |
| PUGET SOUND ENERGY, INC. |) | |
| |) | |
| Respondent. |) | |
| _____ |) | |

SUPPLEMENTAL DIRECT TESTIMONY OF DONALD W. SCHOENBECK

ON BEHALF OF

THE INDUSTRIAL CUSTOMERS OF NORTHWEST UTILITIES

REDACTED VERSION

June 25, 2007

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. HAVE YOU PREVIOUSLY SUBMITTED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes. My direct testimony on behalf of the Industrial Customers of Northwest Utilities in this proceeding was submitted on June 15, 2007. My qualifications are described in Exhibit No.____(DWS-2).

Q. PLEASE STATE THE PURPOSE OF AND SUMMARIZE THIS SUPPLEMENTAL TESTIMONY.

A. I am submitting this supplemental testimony to address the appropriate capacity value used in the AURORA modeling for the Colstrip #3 and Colstrip #4 generating units ("Colstrip units"). I feel it is appropriate to make the supplemental filing now so that Puget Sound Energy ("the Company" or "Puget" or "PSE") can provide a response in its rebuttal testimony regarding the evidence and basis for the PSE proposed value.

In this docket, PSE used [REDACTED] MW as the dependable capacity for each unit. Based upon public information from several sources, it appears the more appropriate value is in the range of 763 to 770 MW. I have performed a sensitivity analysis using the AURORA model assuming the correct rating of these units is 768 MW. Increasing the capacity of these units to this value lowers the revenue requirement by \$5.9 million (50-water-year result with an incremental mark to

1 market adjustment). As a result, the revised ICNU recommendation in this case is
2 a revenue increase of about \$41.7 million as compared to PSE's proposal of \$77.8
3 million—a difference of \$36.1 million.

4 **Q. IS IT POSSIBLE FOR A GENERATING UNIT TO HAVE MORE THAN**
5 **ONE CAPACITY RATING?**

6 **A.** Yes. To name just a few, generating units have a “nameplate” capacity, a “gross”
7 dependable capacity, and a “net” dependable capacity. Further, the “dependable”
8 rating can also vary by season or time period considerations. Many years ago, the
9 nameplate rating was used as a measure of the generating units’ output, but it is less
10 relevant today because the “dependable” ratings are recognized as providing a more
11 meaningful measure of the units’ performance. The gross and net dependable
12 ratings differ by the amount of internal load—station service and auxiliary load—of
13 the generating unit. Accordingly, in my view the most important rating is the net
14 dependable rating, as it represents the amount of power that can be depended upon
15 to be output to the grid over a select amount of time and used as an input to
16 AURORA.

17 **Q. CAN THE NET DEPENDABLE CAPACITY OF A UNIT CHANGE?**

18 **A.** Yes. The net capacity of a unit can deteriorate over time (degradation) or it can be
19 improved or “upgraded” due to maintenance overhauls and/or capital investment.
20 The circumstances regarding the Colstrip capacity in this case are the latter.
21 Specifically, the Colstrip units have or are scheduled to undergo upgrades that are
22 projected to increase the output of each unit.

1 **Q. WHAT PUBLIC SOURCES PROVIDE CAPACITY VALUES FOR THE**
2 **COLSTRIP UNITS?**

3 **A.** There are several sources, including the Bonneville Power Administration
4 (“BPA”), the Northwest Power and Conservation Council (“NPPC”), the Pacific
5 Northwest Utilities Conference Committee (“PNUCC”), and certain other owners
6 of these units. Some of these sources clearly identify the basis of the capacity
7 rating while others do not. For example, the PNUCC *Northwest Regional Forecast*
8 published in April 2007 lists the nameplate rating of the Colstrip units as
9 805 MW.^{1/} The NPPC document entitled *Electricity Generation for the Pacific*
10 *Northwest* dated June 2006 lists plant outputs as well. It states:

11 In this publication, the output of power plants is expressed in
12 megawatts of capacity. Capacity is the maximum power that can
13 be produced by a power plant at specified times under specified
14 conditions.^{2/}

15 The NPPC document lists the Colstrip units at 778 MW.^{3/} BPA’s December 2004
16 “White Book” includes a change in the Colstrip unit capacity values. Colstrip #4
17 was changed from 740 MW to 765 MW effective November 2005. Similarly, the
18 regional rating of Colstrip # 3 was changed in the report from 518 to 536 MW
19 effective December 2006.^{4/} This is equivalent to the identical change for Colstrip
20 #4. The latest BPA “White Book,” published in March 2006, continues to reflect
21 Colstrip #4 capacity of 765 MW for each year of the planning horizon.^{5/} BPA’s
22 report states that the non-hydro capacity capability information was supplied by

^{1/} Exh. No.____(DWS-10) at 2.

^{2/} Exh. No.____(DWS-11) at 2.

^{3/} Id. at 3.

^{4/} Exh. No.____(DWS-12) at 2, 3.

^{5/} Exh. No.____(DWS-13) at 2, 3.

1 project owners. Since no change is indicated from the 2004 White Book, it would
2 not appear that the latest turbine upgrades have been included in the capacity rating.
3 Finally, the other owners of these units are possible sources for capacity values.
4 One such example in this regard is Avista. In a recent filing, Avista used the
5 capacity of the Colstrip units of 768 MW as an appropriate value in AURORA
6 modeling.^{6/} PacifiCorp—owner of 10% of each unit—uses an equivalent value of
7 763 MWs in their power simulation model (GRID).

8 **Q. WITH THIS RANGE OF RATINGS HOW DO YOU PROPOSE A**
9 **REASONABLE LEVEL BE SELECTED?**

10 **A.** Certainly, serious consideration needs to be given to the public values employed by
11 Avista and PacifiCorp. To ascertain the reasonableness of these ratings, we
12 submitted a data request to Puget seeking the gross and net hourly output for each
13 of the four Colstrip units. It is my understanding that the upgrade for Colstrip #4
14 was completed by July 2006. An examination of the hourly output of Colstrip #4
15 would be most instructive for selecting the appropriate capacity value. We are also
16 submitting this testimony in order to allow PSE to address the matter in its rebuttal
17 testimony.

18 **Q. IS THE DIFFERENCE BETWEEN USING PSE'S PROPOSED RATING**
19 **AND 768 MW A SIGNIFICANT ISSUE?**

20 **A.** Yes, it is. The relatively modest difference in megawatts can change the revenue
21 needs for the Company by millions of dollars since the cost of the incremental
22 Colstrip generation is essentially just fuel expense that is displacing the need for
23 very high cost market purchases. To show the significance of this issue, we

^{6/} Exh. No.____(DWS-14) at 2.

1 performed a sensitivity using the AURORA model. We simply changed PSE's
2 values for the two units to 768 MWs. Under a complete 50-water-year run, the
3 AURORA power costs were lowered by \$6.1 million, but there was an incremental
4 increase in the post processing mark to market adjustment of almost \$300,000.
5 This resulted in a net power cost reduction of \$5.8 million. Consequently, the
6 power cost adjustments addressed by ICNU in this proceeding would lower the
7 proposed rate increase by about \$36.1 million, resulting in a rate increase of \$41.7
8 million or 2.4%.

9 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

10 **A.** Yes, at this time.