

**Exh. DJP-1T  
Dockets UE-190529/UG-190530 and  
UE-190274/UG-190275 (consol.)  
Witness: David J. Panco**

**BEFORE THE WASHINGTON  
UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,**

**Complainant,**

**v.**

**PUGET SOUND ENERGY,**

**Respondent.**

**DOCKETS UE-190529  
and UG-190530 (*consolidated*)**

**In the Matter of the Petition of**

**PUGET SOUND ENERGY**

**For an Order Authorizing Deferral  
Accounting and Ratemaking Treatment  
for Short-life UT/Technology Investment**

**DOCKETS UE-190274 and  
UG-190275 (*consolidated*)**

**CROSS-ANSWERING TESTIMONY OF**

**David J. Panco**

**STAFF OF  
WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION**

***Recovery of Advanced Metering Infrastructure (AMI) Investment***

**January 15, 2020**

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1 **I. INTRODUCTION**

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**Q. Please state your name and business address.**

A. My name is David John Panco, and my business address is 621 Woodland Square Loop SE, Lacey, Washington, 98503. My business mailing address is P.O. Box 47250, Olympia, Washington, 98504-7250. My business email address is david.panco@utc.wa.gov.

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

A. I am employed by the Washington Utilities and Transportation Commission (Commission) as a Regulatory Analyst in the Energy Regulation Section of the Regulatory Services Division.

**Q. How long have you been employed by the Commission?**

A. I have been employed by the Commission since November 2015.

**Q. Please provide a brief overview of your professional qualifications.**

A. Much of my work at the Commission has focused on major plant investment. Prior to my employment here, my work experience included over twenty years with Weyerhaeuser in roles that included analysis in support of product, business, and new venture development, and incorporating environmental planning into financial and capital planning at major manufacturing complexes. I graduated from the

1 University of Washington in 1989 with a Master of Marine Affairs degree in applied  
2 resource economics and public policy, and a Master of Business Administration  
3 degree. I also completed New Mexico State University's rate case basics workshop  
4 in May 2016.

5  
6 **Q. Have you testified previously before the Commission?**

7 A. I provided testimony in Docket UE-161204, regarding Pacific Power & Light  
8 Company's proposed stranded cost recovery mechanism, and completed pre-  
9 submission analysis and draft testimony regarding major capital projects for Cascade  
10 Natural Gas's 2015 and 2019 general rate cases (Dockets UG-152286 and UG-  
11 190219).

12  
13 **II. SCOPE AND SUMMARY OF TESTIMONY**

14  
15 **Q. What is the scope and purpose of your testimony?**

16 A. I respond to the testimony of Public Counsel witness Paul J. Alvarez regarding  
17 advanced metering infrastructure (AMI). Specifically, I respond to Public Counsel's  
18 recommendation that the Commission disallow recovery of Puget Sound Energy's  
19 (PSE's) investment in AMI as imprudent given what Public Counsel contends is a  
20 significant disparity between program costs and benefits.

1 **Q. Please summarize your response to Public Counsel’s recommendation that the**  
2 **Commission disallow recovery of PSE’s investment in AMI.**

3 A. Staff recommends that the Commission reject Public Counsel’s request because the  
4 investment to date has been made based on sound business practices and  
5 appreciation of both tactical and strategic considerations.

6

7

### III. DISCUSSION

8

9 **Q. Did you review the Company’s case as it pertains to AMI?**

10 A. Yes.

11

12 **Q. Did you sponsor responsive testimony?**

13 A. No. Staff did not contest PSE’s request to recover investment in AMI.

14

15 **Q. Please summarize PSE’s request with regard to AMI recovery.**

16 A. PSE requests recovery of (1) all investment made through June 30, 2019, and (2) the  
17 cumulative balance associated with the deferral of certain AMI costs, per the terms  
18 of the settlement of PSE’s 2018 expedited rate filing.

19

20

1 **Q. Does Public Counsel take issue with PSE’s request to recover its investments in**  
2 **AMI?**

3 A. Yes. As explained by the testimony of Mr. Alvarez, Public Counsel recommends that  
4 the Commission disallow PSE’s AMI investment in its entirety.

5  
6 **Q. Why does Public Counsel make that recommendation?**

7 A. Public Counsel contends that PSE has understated the costs involved with its AMI  
8 project and overstated the project’s benefits and that the disparity between costs and  
9 benefits has made the project imprudent, although Public Counsel does not explicitly  
10 cast its argument in terms of prudence.

11  
12 **Q. Did you review PSE’s assessment of AMI’s benefits?**

13 A. Yes.

14  
15 **Q. What benefits did PSE describe?**

16 A. PSE offers that it seeks to continue accurate billing as its AMR system, which was  
17 installed between 1998 and 2001, continues to grow obsolete and experience  
18 failures.<sup>1</sup> Replacing AMR with AMI also allows for energy saving for customers  
19 through use of voltage reduction and provides a two-way communications platform  
20 that is required for distribution automation that can improve reliability.<sup>2</sup> These

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<sup>1</sup> Mills, Exh. DEM-1T at 13:18-19.

<sup>2</sup> *Id.* at 13:19 - 14:1.

1 capabilities are made possible by AMI being able to “send and receive energy  
2 consumption data at a higher rate of security, fidelity and granularity than AMR.”<sup>3</sup>

3

4 **Q. Do PSE’s justifications comport with expert, external perspectives on AMI?**

5 A. AMI is widely considered to be an underlying enabling technology and is required  
6 for the distribution grid to move toward dynamic pricing and increased two-way  
7 power flows resulting from deployment of distributed generation.<sup>4</sup> The US  
8 Department of Energy has described AMI deployment as a fundamental early step to  
9 grid modernization.<sup>5</sup>

10

11 **Q. Do you find Mr. Alvarez’s arguments that PSE overstated the benefits of AMI  
12 persuasive?**

13 A. No.

14

15 **Q. Why not?**

16 A. First, Mr. Alvarez’s argument that PSE could have obtained the CVR benefits with  
17 significantly smaller use of AMI fails to consider the increasing failure rate of PSE’s  
18 older advanced meter readers (AMR) and PSE’s need to continue to collect accurate  
19 billing data across all customers as a primary objective. Other immediate benefits  
20 such as conservation voltage reduction become available but are not an exclusive or

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<sup>3</sup> Koch, Exh. CAK-4 at 14:7-8.

<sup>4</sup> National Energy Technology Laboratory for the U.S. Department of Energy, Advanced Metering Infrastructure, 2 (Feb. 2008).

<sup>5</sup> *Id.*

1 primary driver. Next, Mr. Alvarez's arguments fail to consider the benefits offered  
2 by AMI's collection of more granular data, which allows for things such as time-of-  
3 use pricing as testified to by Staff witness Ball. Lastly, Mr. Alvarez's arguments fail  
4 to recognize the benefits of two-way communication across the entire network, such  
5 as quicker awareness of outages, with corresponding reliability and resiliency  
6 benefits, and the benefits offered by AMI's enabling integration of distributed  
7 generation resources and demand side management.

8  
9 **Q. Did you review PSE's cost projections?**

10 A. Yes.

11  
12 **Q. Do you find Mr. Alvarez's argument that PSE understated AMI costs  
13 persuasive?**

14 A. No.

15  
16 **Q. Why not?**

17 A. I find that Mr. Alvarez failed to fully consider the difficulty of maintaining an  
18 obsolete system that no longer has vendor support readily available. He also failed to  
19 recognize the cost advantages associated with a rational, staged replacement of such  
20 a system. Such a methodical replacement process is particularly essential when said  
21 system is so integral to a concern's core operating functions.

1 **Q. Given that Public Counsel tacitly challenges the prudence of PSE’s AMI**  
2 **program, did Staff review PSE’s decision to proceed with the AMI program**  
3 **rather than alternatives?**

4 A. Yes.

5  
6 **Q. And does Staff believe that PSE adequately considered alternatives?**

7 A. Yes. Between 2011-2015, PSE examined several scenarios for replacing its AMR  
8 system as the system was approaching the end of its useful life. The documented  
9 decision process that followed includes stepped studies, confirmation of initial  
10 assumptions, and an appropriate ten to fifteen year time horizon for an investment  
11 with significance of this magnitude. By the “significance of this magnitude,” I refer  
12 to investment of nearly half a billion dollars over a period of five to six years, the  
13 complexity of the decision, and its critical importance to meeting Company  
14 operational needs and providing customer service.

15  
16 **Q. What personal familiarity do you have with investments of such magnitude?**

17 A. During my tenure with Weyerhaeuser, I did have several opportunities to contribute  
18 to and co-lead project teams assessing investments with similar characteristics,  
19 several of which also required similar stepped review processes and levels of senior  
20 management and board approval.

21

1 **Q. Did Staff review PSE’s communication with its board of directors and its**  
2 **officers?**

3 A. Yes.

4

5 **Q. Does Staff believe that PSE adequately involved its board?**

6 A. The board and officers appear to have been closely involved with providing  
7 oversight and direct decisions at numerous points in this decision process. The first  
8 noted formal discussion regarding the AMR system was in May of 2014.<sup>6</sup>  
9 Subsequent reviews of approaches, configuration options, costs and benefits, and  
10 spending authorizations occurred every several months with board action on January  
11 18, 2017, confirming “the strategy to replace PSE’s AMR technology with AMI,  
12 including confirmation of L+G as the AMI vendor.”<sup>7</sup> Additional project updates to  
13 the board have occurred about every nine months.<sup>8</sup>

14

15 **Q. Did PSE keep contemporaneous records of its decision to proceed with AMI?**

16 A. Yes.

17

18 **Q. Given Staff’s review, does Staff find persuasive Public Counsel’s argument that**  
19 **PSE’s investment in AMI was imprudent?**

20 A. No.

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<sup>6</sup> Koch, Exh. CAK-4 at 13:9.

<sup>7</sup> *Id.* at 13:10-19.

<sup>8</sup> *Id.* at 14:1-2.

1 **Q. What action do you recommend that the Commission take with regard to PSE's**  
2 **current request to recover AMI investment in this rate case?**

3 A. Staff recommends that the Commission reject Public Counsel's request that it  
4 disallow the Company's proposed recovery of AMI investment.

5

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

7 A. Yes.