

Exhibit No. \_\_\_ T (ECO-1T)  
Docket UE-152253  
Witness: Elizabeth C. O'Connell

**BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,**

**Complainant,**

v.

**PACIFIC POWER & LIGHT  
COMPANY,**

**Respondent.**

**DOCKET UE-152253**

**TESTIMONY OF**

**Elizabeth C. O'Connell**

**STAFF OF  
WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION**

*Second Year Capital Additions to Rate Base – SCADA EMS and Union Gap Upgrade  
Production Tax Credit Adjustment  
Adjustment 7.2 – Income Tax  
Adjustment 8.2 – Environmental Remediation*

**March 17, 2016**

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## LIST OF EXHIBITS

- Exhibit No. ECO-2 Pacific Power Response to Staff Data Request 46
- Exhibit No. ECO-3 Pacific Power Response to Staff Data Request 47
- Exhibit No. ECO-4 Pacific Power Response to Staff Data Request 47, Attachment WUTC 47
- Exhibit No. ECO-5 Pacific Power 1<sup>st</sup> Supplemental Response to Staff Data Request 37
- Exhibit No. ECO-6 Pacific Power Response to Staff Data Request 69
- Exhibit No. ECO-7 Environmental Remediation Projects in Washington and West Control Area
- Exhibit No. ECO-8 Union Gap Project Presentation
- Exhibit No. ECO-9 Pacific Power Response to Staff Data Request 37, Attachment WUTC 37 – Investment Appraisal Document

1 I. INTRODUCTION

2  
3 Q. Please state your name and business address.

4 A. My name is Elizabeth O'Connell and my business address is the Richard Hemstad  
5 Building, 1300 South Evergreen Park Drive Southwest, P.O. Box 47250, Olympia,  
6 Washington, 98504. My email address is eoconnel@utc.wa.gov.

7  
8 Q. By whom are you employed and in what capacity?

9 A. I am employed by the Washington Utilities and Transportation Commission  
10 (Commission) as a Regulatory Analyst in the Energy Regulation Section of the  
11 Regulatory Services Division. Among other duties, I am responsible for financial and  
12 accounting analysis, auditing records of regulated companies, and reviewing  
13 affiliated interest transactions.

14  
15 Q. How long have you been employed by the Commission?

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

17  
18 Q. Would you please state your educational and professional background?

19 A. In 2009, I received my degree in Economics from Universidad Central de Venezuela  
20 in Caracas, Venezuela, with a specialization in Banking and Finance. In 2013, I  
21 graduated from the University of Dundee in Dundee, United Kingdom, with a Master  
22 of Business Administration in International Oil and Gas Management. In 2015, I  
23 graduated from the University of Washington in Seattle, Washington, with a

1 Certificate in Accounting. Before joining the Commission, I worked for three years  
2 in the financial sector assisting with the brokerage of agricultural securities. I also  
3 previously worked for three years in the real estate sector as an Advisor, specializing  
4 in the appraisal of realty.

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

7 A. No.

8  
9 **II. SCOPE AND SUMMARY OF TESTIMONY**

10  
11 **Q. Please explain the purpose of your testimony.**

12 A. My testimony primarily addresses the prudence of two major plant additions  
13 included in the second year of Pacific Power & Light's ("Pacific Power" or "the  
14 Company") proposed rate plan. These out-of-test-period major rate base additions  
15 are: (1) the Supervisory Control and Data Acquisition Energy Management System  
16 (SCADA EMS) Replacement and Upgrade, and (2) the Union Gap Substation  
17 Upgrade – second sequence (Union Gap). The relevant Company witnesses on these  
18 projects are Mr. Stuart Kelly and Mr. Richard A. Vail, respectively. As part of my  
19 prudence review, I address the proper ratemaking treatment of these out-of-period  
20 major capital improvements. I also address the Production Tax Credit as an out-of-  
21 period pro forma adjustment to the operating expenses of year two of the Company's  
22 proposed rate plan.

1 My testimony also presents Staff's response to Adjustment 7.2 – Property  
2 Tax Expense and Adjustment 8.2 – Environmental Remediation. These adjustments  
3 are part of Company witness Ms. Shelley McCoy's testimony.  
4

5 **Q. Please summarize your conclusions on the issues addressed in your testimony.**

6 A. Below I lay out each of the individual proposals from the Company and summarize  
7 Staff's recommendations:

- 8 • Prudence of Major Plant Additions: Pacific Power presents the costs to plan  
9 and build the second sequence of transmission work for Union Gap as a  
10 capital investment, and requests recovery of these costs in the second stage  
11 of the rate plan. The Company also proposes similar rate treatment for the  
12 SCADA EMS project. Staff finds that the decision to proceed with the  
13 SCADA EMS and Union Gap projects as capital additions are prudent under  
14 established Commission standards. Staff recommends that the Commission  
15 include both projects in rate base at the start of the second year of the  
16 Company's proposed rate plan. Staff's recommended process for updating  
17 the second year rate increase with known and measurable costs—including  
18 costs for these major plant additions—is also discussed by Staff's policy  
19 witness, Mr. Jason Ball, in his direct testimony.<sup>1</sup>

- 20 • Production Tax Credit: Staff recommends that the Commission consider the  
21 Production Tax Credit as a pro forma adjustment to operations expenses at  
22 the time of the Company's attestation filing for year two of the rate plan.

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<sup>1</sup> Ball, Exh. No. JBL-1T 26:17-21, 27:1-2.

- 1 • Property Tax Adjustment: Staff recommends the Commission reject  
2 adjustment 7.2 – Property Tax Expense, unless the Company provides the  
3 actual expenses on rebuttal.
- 4 • Environmental Remediation Adjustment: Staff updates Pacific Power’s  
5 restating Adjustment 8.2 – Environmental Remediation to reflect only costs  
6 that are situs assigned to Washington.

7  
8 **III. RATEMAKING TREATMENT FOR RATE PLAN**

9 **PRO FORMA ADJUSTMENTS**

10  
11 **Q. Please explain Staff’s recommendation on the appropriate ratemaking**  
12 **treatment for major plant additions in the rate plan.**

13 A. Staff recommends including these projects in the second year of the Company’s  
14 proposed rate plan. As discussed by Staff witness Mr. Ball, the Company’s proposal  
15 to use limited discrete adjustments for determining rates under the rate plan’s second  
16 year is a reasonable approach.<sup>2</sup> The major steps of the prudence review of these  
17 projects can be determined concurrent with the present case and finalized once the  
18 Company provides an attestation in April 2017.

19  
20 **Q. Please explain Staff’s recommendation on the appropriate ratemaking**  
21 **treatment for Production Tax Credits.**

22  

---

<sup>2</sup> See Ball, Exh. No. JBL-1T at 28:15-21, 29:1-5.

1           The Company received federal income tax credits—known as Production Tax  
2 Credits (PTCs)—for constructing renewable resource generating plants. The PTCs  
3 reduced Pacific Power’s federal income taxes by amounts determined by the amount  
4 of power generated by the plants for the first ten years of the plants’ life. The  
5 renewable generating plants are reaching the end of that ten year period, and the tax  
6 benefit of the PTCs will expire for the rate effective period that begins in May 2017.  
7 Specifically, the Company has received a 2.3 cent per kilowatt-hour generated credit  
8 on its tax return each year, for the duration of ten years. Multiple facilities will soon  
9 no longer qualify for this credit. Accordingly, I recommend accepting the proposed  
10 adjustment to expenses effective in year two of rate plan.

11  
12           **A.     Pro Forma Adjustments Criteria**

13  
14           **Q.     Please describe the standard for evaluating pro forma adjustments.**

15           A.     Generally, pro forma adjustments to the historical test year must meet four major  
16 criteria:

- 17                   1)     Costs have to be known and measurable,  
18                   2)     Costs have to be prudently incurred,  
19                   3)     When the pro forma adjustment is due to the addition of new plant,  
20                             such addition has to be “major,”  
21                   4)     When the pro forma adjustment is due to the addition of new plant,  
22                             such plant must be used and useful to serve Washington customers.<sup>3</sup>

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<sup>3</sup> See *Wash. Utils. & Transp. Comm’n v. Avista Corp.*, Docket UE-150204, Order 05, ¶¶ 28, 35 (January 6, 2016) (Avista 2015 GRC Order).

1 **Q. How does the Commission evaluate pro forma adjustments to rate base for**  
2 **capital additions that will occur after the test year?**

3 A. Typically, the Commission only allows adjustments that “give effect for the test  
4 period to all known and measurable changes that are not offset by other factors.”<sup>4</sup>

5 The plant should be in service during the test year or at the latest by the filing date of  
6 the rate case being considered. Including rate base items after the test period could  
7 change the historical correlation of rate base with revenues and expenses. However,  
8 the Commission has discretion to “make different determinations in different cases  
9 depending on the record in each individual case and the context in which the case is  
10 decided.”<sup>5</sup>

11  
12 **Q. What is considered an offsetting factor?**

13 A. An offsetting factor is any factor that diminishes the effect of the known and  
14 measurable event. If offsetting factors are excluded, a mismatch would be created,  
15 and the known and measurable change would be overstated or understated. This  
16 distorts the test year relationships among revenues, expenses, and rate base.<sup>6</sup>

17  
18 **Q. In which circumstances do post-test period plant additions normally meet the**  
19 **“offset by other factors” standard?**

20 A. There are three general circumstances when out of period capital additions may be  
21 included in rate base, assuming that the costs are known and measurable and the

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<sup>4</sup> WAC 480-07-510(3)(e)(iii).

<sup>5</sup> *Wash. Utils. & Transp. Comm’n v. Pacific Power & Light Co.*, Docket UE-130043, Order 5, ¶ 198 (Dec. 4, 2013).

<sup>6</sup> *Wash. Utils. & Transp. Comm’n v. Avista Corp.*, Docket UE-090134, Order 10, ¶ 46 (Dec. 22, 2009).

1 plant is used and useful. These circumstances are: (1) the additions are neither  
2 revenue-producing nor expense-reducing assets; (2) the additions do not affect the  
3 overall level of operations; and (3) the additions are specifically made to improve the  
4 environment or improve the quality of service.<sup>7</sup>  
5

6 **Q. Please describe how the out-of-period capital additions that Pacific Power**  
7 **proposes to include in its rate base meet this “offset by other factors” standard.**

8 A. SCADA EMS and Union Gap are projects that improve the quality of service.  
9 As Company witness Mr. Kelly explains, the Company chose a SCADA EMS  
10 system with increased functionality. It has the ability to support improved situational  
11 awareness, improved contingency analysis and state estimation tools, and improved  
12 alarm management applications.<sup>8</sup> The modern SCADA EMS is hardware  
13 independent. Also it improves the Company’s capacity to comply with NERC  
14 reliability standards.

15 Regarding Union Gap, the Company undertook this project specifically to  
16 comply with NERC standards and to reduce reliability risks.<sup>9</sup>  
17

18 **B. Known and Measurable Standard**  
19

20 **Q. What is the standard for a known and measurable pro forma adjustment?**

---

<sup>7</sup> Robert L. Hahne and Gregory E. Aliff, *Accounting for Public Utilities* § 4.04[4] (2012).

<sup>8</sup> Kelly, Exh. No. SJK-1T 5:20-24.

<sup>9</sup> Vail, Exh. No. RAV-1T 5:7-16.

1 A. The Commission has described the known and measurable standard in a prior  
2 decision as follows:

3 The known and measurable test requires that an event that causes a  
4 change in revenue, expense or rate base must be *known* to have  
5 occurred during, or reasonably soon after, the historical 12 months of  
6 actual results of operations, and the effect of that event will be in  
7 place during the 12-month period when rates will likely be in effect.  
8 Furthermore, the actual amount of the change must be *measurable*.  
9 This means the amount typically cannot be an estimate, a projection,  
10 the product of a budget forecast, or some similar exercise of judgment  
11 – even informed judgment – concerning future revenue, expense or  
12 rate base.<sup>10</sup>

13  
14 Costs that are documented by actual expenditure, invoice, contract, or other specific  
15 obligation generally meet this test.

16

17 **Q. Using these criteria, would SCADA EMS and Union Gap be allowed as**  
18 **traditional pro forma rate base additions?**

19 A. Yes, the SCADA EMS and Union Gap projects are appropriate pro forma rate base  
20 additions for several reasons. First, the projects could be considered traditional rate  
21 base additions because they both will be in service before the start of the 2017 rate  
22 year. Further, Staff has already audited the costs that the Company incurred to date,  
23 and such costs appear reasonable. Additionally, Staff will have an opportunity  
24 following the Company's attestation filing to review the final costs for both projects  
25 before any costs are included in the 2017 rate year.

26

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<sup>10</sup> *Wash. Utils. & Transp. Comm'n v. Puget Sound Energy*, Docket UE-090704, Order 11, ¶ 26 (Apr. 2, 2010) (internal citation omitted).

1 **Q. Would the Production Tax Credit be allowed as traditional pro forma**  
2 **adjustment to expense?**

3 Yes. The impact of the Production Tax Credit in expenses is known and  
4 measurable because the amount is calculated based on the value of kilowatt-hours  
5 produced in the facilities that will no longer receive the tax credit. The Company will  
6 lose \$11.6 million in the West Control Area PTCs in the 12-month period between  
7 May 1, 2017, and April 30, 2018.<sup>11</sup> This loss results in \$2,625,951 in additional  
8 revenue requirement.

9  
10 **C. Prudence Review of Projects**

11  
12 **Q. Is a prudence determination for Union Gap and SCADA EMS necessary?**

13 A. Yes. The Commission did not discuss the prudence of Union Gap Second sequence  
14 in its final order for Pacific Power's last general rate case. The SCADA EMS rate  
15 base addition has not been brought to the Commission for cost recovery in the past.  
16 Therefore, the Commission has not examined the prudence of either project.

17  
18 **Q. Please describe the prudence review process in this case.**

19 A. Staff has approached the prudence review for Union Gap and SCADA EMS as a  
20 two-step process because the information needed to evaluate the prudence of the  
21 Company's decision to go forward with both projects is already available, but each  
22 project's final closeout costs are not yet available. Accordingly, in this testimony,

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<sup>11</sup> McCoy, Exh. No. SEM-1T 34:5-6.

1 Staff assesses the appropriateness of the decision to go forward with each project and  
2 the costs that are already known and measurable using the prudence standard and the  
3 four main prudence factors. Staff will complete the second step once the Company  
4 provides the data pertaining to final costs for each project in an attestation filing next  
5 spring. This approach is consistent with the evaluation of information about costs  
6 and decisions that are known and measurable. Projects involving capital additions of  
7 these magnitudes involve a significant amount of planning and decision making long  
8 before the actual developing begins. Accordingly, Staff has reviewed the information  
9 regarding the decision making that led to the creation of these capital additions.  
10

11 **Q. Please summarize your conclusion about the prudence of Union Gap and**  
12 **SCADA EMS.**

13 A. After analyzing the information provided by the Company, performing an onsite visit  
14 of SCADA EMS facilities, and reviewing Pacific Power's direct testimony, Staff  
15 recommends that the Commission find that the decision to proceed with both  
16 projects was prudent.  
17

18 **1. Prudence Standard**  
19

20 **Q. What is the standard for a prudence review?**

21 A. The Commission uses a reasonableness standard to determine the prudence of a  
22 company's decisions to make capital investments. The prudence test asks what a  
23 *reasonable* board of directors and company management would have decided given

1 what they knew or reasonably should have known to be true at the time they made  
2 the decision, and this standard is also discussed in section III of Mr. Twitchell's  
3 testimony.

4  
5 **Q. What factors does the Commission consider in a prudence review?**

6 A. There is no single set of factors for a prudence review. However, there are four  
7 factors that the Commission has generally used as a reference:<sup>12</sup>

8 1) *The Need for the Resource* – The utility must determine the necessity  
9 of a resource. Then, the utility must identify the most cost-effective  
10 way to fulfill that need, comparing all available options for purchase  
11 against the option of building a new resource.

12 2) *Evaluation of alternatives* – The utility must review current available  
13 information about the alternatives and identify the relevance of such  
14 factors as capital cost, dispatchability, transmission cost or access,  
15 long-term planning, and any other additional factors to have an  
16 appropriate acquisition process.

17 3) *Communication with and involvement of the Company's Board of*  
18 *Directors* – The utility must provide relevant information for decision  
19 making purposes about the purchase and its costs to the executives or  
20 top level managers making the decision.

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<sup>12</sup> See *Wash. Utils. & Transp. Comm'n v. Pacific Power & Light Co.*, Docket UE-090205, Order 09, ¶ 64 (Dec. 16, 2009); *Wash. Utils. & Transp. Comm'n v. Puget Sound Energy*, Docket UE-031725, Order 12, ¶ 20 (Apr. 7, 2004).



1 **Q. Why did the Company seek to upgrade and replace its existing SCADA EMS?**

2 The Company pursued the replacement of its existing system to maintain compliance  
3 with Federal Energy Regulatory Commission (FERC) and North American Electric  
4 Reliability Corporation (NERC) reliability standards.<sup>16</sup> The purpose of this project is  
5 to replace the existing system, the ABB SCADA EMS Ranger NM2003. As  
6 Company witness Mr. Kelly explains, the current system has multiple problems that  
7 compromise its ability to provide a reliable service in the long term.<sup>17</sup> The current  
8 system also increases the non-compliance risk related to recent NERC reliability and  
9 Critical Infrastructure Protection Standards (CIPS) requirements.<sup>18</sup>

10 After a structured selection process for a main contractor of the primary  
11 software, the Company successfully negotiated and agreed to a contract in May  
12 2013.<sup>19</sup> The Company initially anticipated the new system would be in service by  
13 March 31, 2016, when it filed the present case,<sup>20</sup> but more recently the Company  
14 updated its estimated go-live date to be April 26, 2016.<sup>21</sup> Resolving cutover critical  
15 variances, architecting network throughput improvements, and delays encountered  
16 during the upgrade of the network firewalls have necessitated the approximately one-  
17 month delay.<sup>22</sup> The postponement also means that the new system will not be in  
18 service by the time the NERC CIPsv5 becomes mandatory, but the Company took

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<sup>16</sup> *Id.* at 2:16-17.

<sup>17</sup> *Id.* at 3:6-19.

<sup>18</sup> *Id.* at 3:4-5.

<sup>19</sup> *Id.* at 5:4-7.

<sup>20</sup> *Id.* at 6:13.

<sup>21</sup> O'Connell, Exh. No. ECO-2 (Pacific Power Response to Staff Data Request 46).

<sup>22</sup> *Id.*

1 additional steps to ensure that the current SCADA EMS complies with the new  
2 standard.<sup>23</sup>

3 The Company stated that is expecting a variance of 19 percent over the  
4 original budget as the project was extended into 2016,<sup>24</sup> but it also stated that it  
5 worked to ensure the delay was kept to a minimum and costs were held within  
6 budget.<sup>25</sup> Contrary to this representation, and according to a comparison of the  
7 original budget and the actuals as of January 31, 2016, and the forecasted costs  
8 through April 2016,<sup>26</sup> there were increased expenses due to this delay. Nevertheless,  
9 Staff is not particularly concerned about the delay and cost increases mainly because  
10 it was a consequence of the nature of the project and the technical challenges  
11 presented by implementing a completely new and different system. Additionally, the  
12 delay will not expose the Company to compliance risks because measurements were  
13 taken on a technical level to mitigate that impact.

14  
15 **Q. Please describe the procedural history related to SCADA EMS.**

16 A. Pacific Power stated that the current case is the only time the Company has requested  
17 recovery of the costs related to SCADA EMS replacement in the state of  
18 Washington.<sup>27</sup> Costs related to SCADA EMS were included Company's General  
19 Rate Cases in Wyoming and Utah. Pacific Power also incorporated SCADA EMS  
20 replacement costs to the Company's 2014 Results of Operations filing with the state

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<sup>23</sup> Pacific Power Response to Staff Data Request 58.

<sup>24</sup> O'Connell, Exh. No. ECO-3 (Pacific Power Response to Staff Data Request 47).

<sup>25</sup> Pacific Power Response to Staff Data Request 46.

<sup>26</sup> O'Connell, Exh. No. ECO-4 (Pacific Power Response to Staff Data Request 47, Attachment WUTC 47).

<sup>27</sup> Pacific Power Response to Staff Data Request 51.

1 of Idaho. The Company has not filed any cost recovery request in Oregon and  
2 California.

3  
4 **Q. What information did you evaluate in conducting your analyses?**

5 A. I reviewed the direct testimony and exhibits of Pacific Power witnesses Mr. Kelly  
6 and Ms. McCoy, and Pacific Power's responses to data requests from Staff. These  
7 documents included the master contract for SCADA EMS and the project proposal. I  
8 also evaluated sections of the Company's 2015 business plan, vendor scoring  
9 matrices, and requests for proposals.

10  
11 **b. Prudence Review for SCADA EMS**

12  
13  
14 **Q. Does the SCADA EMS project meet the standards for the first step of the  
15 prudence review?**

16 A. Yes. The SCADA EMS project complies with the four factors used to evaluate  
17 prudence:

- 18 1) *The Need for the Resource* – Company witness Mr. Kelly explained  
19 in his direct testimony that the existing SCADA system's platform,  
20 the NM2003, suffers from several flaws: (1) it is obsolete, (2) it does  
21 not support proper password management, and (3) its underlying  
22 hardware infrastructure is not supported with regular updates by the  
23 vendors.<sup>28</sup> Failing to upgrade the system would expose the Company

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<sup>28</sup> Kelly, Exh. No. SJK-1T at 3:6-19.

1 to increased risk of system failure, would hinder the addition of new  
2 functionality and would potentially cause issues that could result in  
3 additional NERC violations and penalties.<sup>29</sup>

4 2) *Evaluation of Alternatives* – Pacific Power initiated its evaluation  
5 process by bringing in an independent consultant to evaluate potential  
6 scenarios for the SCADA EMS project. Pacific Power had the option  
7 to update the current system to the latest version, the NMR5, but the  
8 Company would then have been required to replace it within five  
9 years.<sup>30</sup> The replacement of NMR5 would require the investment in  
10 new hardware and software, effectively making it a new project.<sup>31</sup>  
11 Pacific Power decided instead to invest in a more modern SCADA  
12 that offered additional and improved functionality. The Company  
13 started a selection process after executive management’s decision to  
14 move forward with the project Pacific Power started a request for  
15 proposal process that included five vendors of which two were  
16 evaluated as top choices.<sup>32</sup> After an on-site visit to other utilities to  
17 observe each system operating in real time, Pacific Power chose  
18 Operation Systems International (OSI). OSI provided the most cost  
19 effective alternative considering the internal implementing costs. The  
20 new SCADA system does not suffer from the same obsolescence  
21 problems as NMR5 due to its hardware independence. Further, it

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<sup>29</sup> *Id.* at 3:22-24.

<sup>30</sup> *Id.* at 3:26-29.

<sup>31</sup> *Id.* at 4:8-11.

<sup>32</sup> Information obtained during on-site visit.

1 reflects adequate long-term planning by preventing additional costs in  
2 the next five years.

- 3 3) *Communication with and involvement of the Company's Board of*  
4 *Directors* – The Company incorporated members of its Executive  
5 Management on the commercial and technical areas in the project.  
6 Lead Operators, Technical Staff and top level management were  
7 involved in the selection process and in the on-site visit to other  
8 utilities to evaluate the systems in real time.<sup>33</sup> The procurement  
9 department also had a role, which was managing the Request for  
10 Proposal process and in evaluating the best final offer.<sup>34</sup> The  
11 information to make a final decision was presented to the project  
12 executive steering committee.<sup>35</sup> Patrick Reiten, who is the President  
13 and Chief Executive Officer of Pacific Power Transmission, signed  
14 the OSI contract. Further information on the project was available in  
15 the investment appraisal and sections of the 2015 Business Plan,  
16 which include amounts for capital expenditures and technology  
17 capital investments.
- 18 4) *Adequate Documentation* – The Company provided adequate  
19 supporting analysis demonstrating the reasonableness of the decision  
20 to invest in the SCADA EMS project. However, it is not clear to Staff  
21 how the process of communicating with top level management works

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<sup>33</sup> *Id.*

<sup>34</sup> *Id.*

<sup>35</sup> *Id.*

1 and if it is a consistent process for each project. According to Pacific  
2 Power its system for approval for capital projects is based on overall  
3 expenditure level, and this requirement ensures project approval is  
4 gained at the appropriate executive level.<sup>36</sup> The approval process for  
5 project expenditures is managed through the SAP financial system  
6 and the appropriation requests (APR) are routed electronically  
7 through an approval chain based on the dollar value of the APR.<sup>37</sup>  
8 Before 2011, Pacific Power used a paper and email routing system to  
9 approve APRs.<sup>38</sup> All capital projects require a superior (or initial)  
10 APR; if there are changes in scope, dollars, or schedule a project  
11 change notice (PCN) is required.<sup>39</sup> Staff requested information  
12 regarding initial and subsequent investment appraisal documents and  
13 Pacific Power responded that the only financial analysis done for this  
14 project was the initial Replacement Project Proposal seeking approval  
15 of full project funding.<sup>40</sup> The Company did not follow its own  
16 standard of procedure regarding project change notices. These  
17 documents were not issued even when the project had a change of  
18 scope and went over the initial budget. Pacific Power does have a  
19 unique corporate structure, and that interferes with the application of  
20 a consistent decision making process. Mr. Twitchell describes in

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<sup>36</sup> O'Connell, Exh. No. ECO-5 (Pacific Power 1<sup>st</sup> Supplemental Response to Staff Data Request 37).

<sup>37</sup> *Id.*

<sup>38</sup> *Id.*

<sup>39</sup> *Id.*

<sup>40</sup> Pacific Power response to Staff Data Request 50.

1 more detail the Company's corporate structure.<sup>41</sup> However, this  
2 situation does not represent an obstacle to provide a recommendation  
3 because the Company submitted data that reflected how technical and  
4 commercial requirements were satisfied and the material that top  
5 level management used for decision making purposes was relevant  
6 and contemporary with the project.  
7

8 **Q. Have you reviewed the final costs of this project?**

9 A. No because the project will not be completed until April 26, 2016. However, I have  
10 reviewed project costs to date. The Company so far accounts for an amount of \$33.9  
11 million of net plant balances, which reflects the total Company costs for the SCADA  
12 EMS. The project is over the original budget by \$5.2 million.<sup>42</sup> Staff is not  
13 concerned about this variation in budget due to the circumstances and the nature of  
14 this particular project. During informal discussions and an on-site visit, the Company  
15 communicated that the software replacement project varied from its original  
16 projected budget because of unexpected costs related to software licensing costs.  
17 Also, the initial scope of the project was expanded to have the necessary technical  
18 platform to implement the new system. Contingency funds were not deemed  
19 necessary and were not required by corporate governance for the initial budget  
20 approval.<sup>43</sup>  
21

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<sup>41</sup> See Twitchell, Exh. No. JBT-1T at 12:10-14.

<sup>42</sup> O'Connell, Exh. No. ECO-4 (Pacific Power response to Staff Data Request 47, Attachment WUTC 47).

<sup>43</sup> O'Connell, Exh. No. ECO-3 (Pacific Power response to Staff Data Request 47).

1 **Q. What are your recommendations for SCADA EMS?**

2 A. I recommend that the Commission consider the SCADA EMS acquisition and  
3 management decision by Pacific Power as prudent. Staff notes that the Company's  
4 process for making the decision does not seem systematic or consistent. However,  
5 this does not affect my recommendation that Commission find the Company's  
6 decision to go forward to be prudent.

7 Additionally, Staff recommends including SCADA EMS in the second year  
8 of the rate plan as a pro forma rate base addition subject to the Company's attestation  
9 filing and a final review of costs in April 2017.

10  
11 **3. Prudence for Union Gap Project**

12  
13 **a. Description and History**

14  
15 **Q. Please briefly describe the Union Gap Substation Upgrade – Second sequence.**

16 A. The Union Gap Substation Upgrade (Union Gap) consists of three sequences of  
17 work, with the second sequence of work included in this filing and estimated to be in  
18 service on May 15, 2016. The Company is using a sequenced method to avoid  
19 prolonged outages in the service area. The second sequence of work includes  
20 relocating the 230 kV bus and constructing it into a ring bus with six new 230 kV  
21 breakers to accommodate the addition of a 230/115 kV, 250 MVA transformer.<sup>44</sup>

22  

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<sup>44</sup> Vail, Exh. No. RAV-1T at 2:20-21, 3:1-4.

1 **Q. Please describe the procedural history related to Union Gap.**

2 A. The Commission accepted the first sequence of Union Gap as a post-test year plant  
3 addition in the Company's 2014 general rate case.<sup>45</sup> The decision relied on the "used  
4 and useful for service" and "known and measurable" principles for capital  
5 additions.<sup>46</sup>

6

7 **Q. What information did you evaluate in conducting your analyses?**

8 A. I reviewed the direct testimony and exhibits of Pacific Power witnesses Mr. Richard  
9 Vail and Ms. Shelley McCoy, and Pacific Power's responses to data requests from  
10 Staff. This included invoices and purchase orders for Union Gap expenses. I also  
11 evaluated sections of the Company's 2015 business plan, investment appraisal  
12 documents, project change notices, cash shift reports, scoring matrices, and requests  
13 for proposals.

14

15 **b. Prudence Review for Union Gap**

16

17 **Q. Does the Union Gap substation upgrade – second sequence meet the standards**  
18 **for the first step of the prudence review?**

19 A. Yes. Union Gap meets the four factors for prudence:

20 1) *The Need for the Resource* – As Mr. Vail explained in his testimony,  
21 the project is necessary to continue to comply with NERC Standard

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<sup>45</sup> *Wash. Utils. & Transp. Comm'n v. Pacific Power & Light Co.*, Docket UE-140762, Order 08, ¶ 172 (Mar. 25, 2015).

<sup>46</sup> See RCW 80.04.250.

1 TPL-002 “System Performance Following Loss of a Single Bulk  
2 Electric System Element (Category B).” This federal reliability  
3 standard requires bulk electric system elements including  
4 transmission transformers, to be within thermal limits following the  
5 single contingency loss of a transmission system element.<sup>47</sup>

6 According to Company witness Mr. Vail, an outage of one of the two  
7 230/115 kV transformers would result in an overload of the remaining  
8 transformer of approximately 50 megawatts (MWs), which can be  
9 maintained for a maximum of four hours.<sup>48</sup> Pacific Power’s West  
10 System Assessment for TPL-002 Compliance Requirements notes  
11 that this situation will be experienced by 2016.<sup>49</sup> According to the  
12 Company’s investment appraisal document:

13 “Loss of the two 230/115 kV transformers results in 30  
14 MWs of load being shed (approximately 6,000  
15 customers) for the initial outage. This will also result  
16 in the remaining transformers at the nearby Pomona  
17 Heights substation being overloaded by approximately  
18 150 MWs, which would require corrective measures to  
19 remove the overloads from the transformers. To  
20 correct all aforementioned system limitations in a cost-  
21 effective manner, this plan of service was selected to  
22 rebuild the 230 kV and 115 kV buses into a ring bus  
23 for the 230 kV bus and breaker and a half  
24 configuration for the 115 kV bus, which will eliminate  
25 the TPL-003 system deficiencies at the Union Gap  
26 substation. Deficiencies related to the 230 kV bus are  
27 resolved by the second sequence.”<sup>50</sup>  
28

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<sup>47</sup> O’Connell, Exh. No. ECO-9 (Pacific Power response to Staff Data Request 37, Investment Appraisal attachment).

<sup>48</sup> Vail, Exh. No. RAV-1T at 5:13-16.

<sup>49</sup> *Id.* at 5:16-19.

<sup>50</sup> O’Connell, Exh. No. ECO-9 (Pacific Power response to Staff Data Request 37, Investment Appraisal attachment).

1 Staff thus finds adequate need to justify the addition of the  
2 second sequence of Union Gap.

3 2) *Evaluation of Alternatives* – The Company considered two possible  
4 scenarios to meet the NERC requirement. It assessed replacing both  
5 existing 230/115 kV 150 MVA transformers at Union Gap with new  
6 230/115 kV 250 MVA transformers and rebuilding the 230 kV and  
7 115 kV buses. Pacific Power also evaluated building a new 230/115  
8 kV substation along the Pomona to Union Gap 230 kV line.<sup>51</sup> The  
9 Company chose the option that was the most cost-effective and that  
10 maintained their levels of technical and safety requirements.<sup>52</sup> To  
11 choose the vendor Pacific Power used Ariba contract management  
12 software to administrate the Request for Proposals process. The  
13 Company invited 53 contractors from its network of “approved  
14 contractors” to bid. Approved contractors are companies that have  
15 developed other projects for the Company in the past. After a pre-  
16 award roundtable discussion to agree on the evaluation standards for  
17 the contractors of this project, price and technical matrices were  
18 developed to evaluate the contractors in these aspects separately. The  
19 selected contractor was the one that obtained the highest score from  
20 the technical and price assessments.

21 3) *Communication with and involvement of the Company’s Executive*  
22 *Management* – For projects such as Union Gap where there are three

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<sup>51</sup> O’Connell, Exh. No. ECO-8 (Pacific Power response to Staff Data Request 158, Attachment at p. 13).

<sup>52</sup> *Id.*

1 distinct sequences, approval of funding must stay at the overall  
2 project level. The initial APR for the Union Gap project was routed  
3 and approved prior to the implementation of the current electronic  
4 process using the SAP system.<sup>53</sup> As it was mentioned in the prudence  
5 section for SCADA EMS, before 2011, Pacific Power used a paper  
6 and email routing system to approve APRs. Union Gap documents  
7 used the same approval authority amount as before the system was  
8 updated.<sup>54</sup> In this case, the Company provided information regarding  
9 the project change notices and how top level management was  
10 informed of the multiple steps to develop the project. For APRs that  
11 have expenditure amounts over \$1.0 million, Pacific Power's policy  
12 requires an Investment Appraisal Document (IAD) to further  
13 supplement the text in the APR; however, the business controller can  
14 waive this requirement for certain cases.<sup>55</sup> The Company provided  
15 email chains showing how the Controller waived the requirement of  
16 the IAD on a preliminary APR for this project.<sup>56</sup> The first PCN  
17 reflecting the full funding of the project was approved by Mr. Greg  
18 Abel, Chairman and Chief Executive Officer of Pacific Power.<sup>57</sup> The  
19 latest PCN reflects an increase in project funding of \$2.15 million  
20 approved by Mr. Greg Abel. A new Special Delegation of Authority

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<sup>53</sup> O'Connell, Exh. No. ECO-5 (Pacific Power 1<sup>st</sup> Supplemental Response to Staff Data Request 37).

<sup>54</sup> *Id.*

<sup>55</sup> *Id.*

<sup>56</sup> *Id.*

<sup>57</sup> *Id.*

1 (SDA) was also submitted.<sup>58</sup> As of the writing of this testimony Staff  
2 does not have additional details of the role and purpose of the SDA in  
3 the structure of the Company. Similar to the SCADA EMS project,  
4 information regarding Union Gap was included in documents like the  
5 investment appraisal<sup>59</sup> and sections of the 2015 Business Plan  
6 reflecting amounts for Union Gap and general main grid transmission  
7 capital investments.<sup>60</sup>

8 4) *Adequate Documentation* – The Company provided adequate records  
9 and supporting analysis demonstrating the reasonableness of the  
10 decision to invest in Union Gap three sequences. The initial  
11 investment appraisal document and subsequent documents were  
12 approved by top management, but again it is not clear to Staff if  
13 communication with top level executives is a consistent process for  
14 each project. Nevertheless, for the Union Gap project it was clearer to  
15 Staff that the top management people making the decision evaluated  
16 documents related to the project.

17  
18 **Q. Have you reviewed the final costs for Union Gap?**

19 **A.** No because the project will not be completed until May 2016. However, I have  
20 reviewed Union Gap costs to date. The current project forecast is \$21,029,404, and  
21 the initial amount included as plant in service in the Company's initial filing for the

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<sup>58</sup> *Id.*

<sup>59</sup> Pacific Power Response to Staff Data Request 37.

<sup>60</sup> Pacific Power Responses to Staff Data Requests 37-1 and 37-2, confidential attachment.

1 second sequence was \$20,882,973.<sup>61</sup> The Company stated there is a variance of four  
2 percent between the initial project budget and the actual final expenditures. Staff is  
3 not concerned about this variation in budget since it is a small variance from the  
4 original budget. Management also explained during informal conversations that the  
5 relative increase in the projected amount was caused by unforeseen events during  
6 construction that changed the scope of the project. These unforeseen events include  
7 modifications to the design and procedures during construction process that can only  
8 be known on-site once they occur. Additionally, cost estimates changed from the  
9 time they were calculated to the date they were billed. It is important to point out that  
10 Pacific Power's policies require large transmission projects of \$50 million (net cost)  
11 or greater to have a reserve.<sup>62</sup> Previous appropriation request (APR) for Union Gap  
12 substation upgrade had a \$4 million contingency fund for all sequences, but the  
13 recent APR removed the contingency funds because design was complete, material  
14 purchased and construction bids were awarded.<sup>63</sup>

15  
16 **Q. What is Staff's recommendation for Union Gap?**

17 **A.** I recommend that the Commission consider the Union Gap contracting and  
18 management decision by Pacific Power to be a prudent investment. The decision to  
19 go forward was prudent and the process of making that decision seemed more  
20 systematic and consistent with the standard of procedures, in contrast to SCADA  
21 EMS.

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<sup>61</sup> Pacific Power response to Staff Data Request 34.

<sup>62</sup> *Id.*

<sup>63</sup> *Id.*

1                    Additionally, Staff recommends including Union Gap in the second year of  
2                    the rate plan as a pro forma rate base addition subject to the Company's attestation  
3                    filing and review of final costs in April 2017.

4  
5                    **c.        Major Rate Base Additions**

6  
7        **Q.        What is a major rate base addition?**

8        A.        Staff considers a construction project for water, gas and electrical companies to be  
9                    "major" if the Washington-allocated share of the total project is greater than five-  
10                    tenths of one percent of the company's latest year-end Washington-allocated net  
11                    utility plant in service, but this does not include any project of less than three million  
12                    dollars on a total project basis.<sup>64</sup>

13                    The Commission signaled its approval of this standard in Avista's 2015  
14                    general rate case:

15                    Staff's proposed threshold for major plant additions relies on an  
16                    established rule, albeit one established in a somewhat different setting.  
17                    It has, however, the advantage of being proportional to the size of the  
18                    Company's rate base and therefore relevant to the issue of the financial  
19                    impact on the Company in the setting of rates. We find it reasonable to  
20                    set the threshold in proportion to a company's rate base. In the instant  
21                    case, we find it reasonable to use the one-half of one percent  
22                    threshold.<sup>65</sup>

23  

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<sup>64</sup> See WAC 480-140-040.

<sup>65</sup> Avista 2015 GRC Order at ¶ 40.

1 **Q. Do SCADA EMS and Union Gap Upgrade qualify as “major” rate base**  
2 **additions?**

3 A. Yes. Both projects qualify since they are over \$3 million. SCADA EMS is \$33.9  
4 million and Union Gap second sequence is \$20.8 million on a total project basis.  
5 However, independently the projects do not reach the threshold of an allocated share  
6 greater than 0.5 percent of the Company’s Washington allocated net electric plant in  
7 service or \$8,709,816.93. This does not preclude Staff from considering these  
8 additions as major. First, Union Gap’s various phases will ultimately add up to a  
9 bigger project. Second, the SCADA EMS system is key to the functionality of  
10 Pacific Power’s generation and transmission system; without it the Company would  
11 have no visibility into real-time status of its electric system and no way to operate in  
12 response to system conditions.<sup>66</sup> Staff supports the amount that the Company  
13 calculated for Washington’s rate payers for these major rate base additions according  
14 to the Company’s allocation factors.

15

16 **d. Used and Useful**

17

18 **Q. Please describe the Used and Useful Standard.**

19 A. It is well established that, if the pro forma adjustment adds new plant, it must be  
20 shown that the new plant will be used and useful to serve Washington customers.<sup>67</sup>

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<sup>66</sup> Kelly, Exh. No. SJK-1T at 2:12-14.  
<sup>67</sup> *Wash. Utils. & Transp. Comm’n v. Avista Corp.*, Docket UE-090134, Order 10 at ¶ 48.

1 With very limited exceptions the plant must be in service by no later than the end of  
2 the rate proceeding if it is to be allowed in rate base.<sup>68</sup>

3  
4 **Q. Do SCADA EMS and Union Gap Upgrade meet this test?**

5 A. Yes. The projects will be used and useful before they are included as rate base  
6 additions in the second year of the rate plan. SCADA EMS will be in service by  
7 April 2016, and Union Gap will be in service in May 2016. The attestation and  
8 review of total cost for both projects will be done by April 2017.

9  
10 **Q. Please explain how the Union Gap and SCADA rate base additions meet the**  
11 **criteria that have been applied historically to pro forma adjustments.**

12 A. The main consideration for Staff's recommendation is that, even though the plant  
13 was not in service during the test year or by the filing date of this rate case, it will  
14 effectively be in service by the start of the second year of the rate plan. Staff's  
15 proposed cost updates will give the opportunity to have access to known and  
16 measurable information about final closeout costs before the beginning of year two  
17 of rate plan. Also, Staff will be able to provide an informed opinion regarding the  
18 second step of the prudence review, which is an assessment of how the decisions  
19 were made after the project was selected. Furthermore, both projects are necessary to  
20 provide service and will be rendering a service to customers by the time they become  
21 rate base items. Finally the projects do not likely have offsetting factors; their

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<sup>68</sup> *Id.*

1 development was the result of required NERC standards to maintain quality of  
2 service.

3  
4 **Q. Please summarize Staff's recommended rate base adjustments for Union Gap  
5 and SCADA EMS.**

6 A. Staff recommends adding to rate base for year two of the rate plan the capital costs  
7 incurred as of February 29, 2016, for the Union Gap and SCADA EMS projects. Any  
8 additional costs, including closeout costs, will be updated according to the attestation  
9 provided by the Company before the beginning of the second year of rates. It is  
10 important to point out that it is not expected to have significant cost changes  
11 compared to the information contemporaneous with this filing. Both projects are  
12 very close to their completion date, and Staff's calculations for revenue requirement  
13 include the costs that are already known. Staff's proposed cost updates will give the  
14 opportunity to have access to actual information about final closeout costs by the  
15 beginning of year two of the rate plan, and make reasonable adjustments to revenue  
16 requirement if necessary.

17  
18 **IV. PROPERTY TAX ADJUSTMENT**

19  
20 **Q. Please describe the Company's Property Tax Expense adjustment.**

21 A. Pacific Power proposes a restating adjustment to property tax expense to account for  
22 the impact of out-of-period plant additions. Instead of making calculations with the

1 data corresponding to the test year, the Company calculates one year's worth of  
2 property tax expenses from October 2014 to October 2015.

3  
4 **Q. Please summarize your recommendation for this adjustment.**

5 A. I recommend the Commission reject Pacific Power's proposal for this restating  
6 adjustment and instead maintain the property tax expense that was accrued and  
7 booked during the test year beginning in June 2014 and ending June 2015.

8 Nevertheless, Staff will support adjusting the property tax expense if Pacific Power  
9 updates the adjustment to mirror the existent quantity of property tax expense at the  
10 time of rebuttal.

11  
12 **Q. Please explain the reasoning for Staff's recommendation.**

13 A. Property tax is determined by multiple factors, some of which are not known until  
14 the actual expense is incurred. The Company's calculation uses data from a different  
15 test period ending in October 2015. This would violate the historical relationship of  
16 rate base with revenues and expenses, and it would be inconsistent with previous  
17 treatment for these types of costs.

18  
19 **Q. What is the effect of Staff's recommendation for this adjustment?**

20 A. Staff's proposal removes the Company's restating increase to net operating income  
21 of \$255,830 and maintains the test year property tax expense levels.

1                   V.       ENVIRONMENTAL REMEDIATION ADJUSTMENT

2  
3   **Q.    Please describe the Company's Adjustment 8.2 - Environmental Remediation.**

4   A.    Pacific Power proposes a restating adjustment to account for environmental  
5       remediation costs. The Company includes in the adjustment the amounts of all non-  
6       major environmental remediation projects expenses within the Company.<sup>69</sup>

7  
8   **Q.    Please summarize your recommendation on Adjustment 8.2 - Environmental**  
9       **Remediation.**

10  A.    My recommendation is to include in this adjustment only projects that are located in  
11       the West Control Area.

12  
13  **Q.    Please describe the procedural history related to the Environmental**  
14       **Remediation Adjustment.**

15  A.    The Commission authorized the Company to recover costs of non-major  
16       environmental remediation costs, net of insurance and other third party recoveries, in  
17       Docket UE-031658.<sup>70</sup> Pacific Power stated that the adjustment has been prepared  
18       consistent with this standard since it was put in place.

19       The Company considers this approach to be justified given the fact that it has  
20       presented this particular adjustment in the same manner in every general rate case  
21       proceeding since the order was granted and that "there are no restrictions that

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<sup>69</sup> O'Connell, Exh. No. ECO-6 (Pacific Power Response to Staff Data Request 69).

<sup>70</sup> *Wash. Utils. & Transp. Comm'n v. Pacific Power*, Docket UE-031658, Order 01 (Apr. 27, 2005).

1 environmental remediation project costs be limited to projects located in the  
2 Company's Washington jurisdiction."<sup>71</sup>

3  
4 **Q. Please explain the reasoning for Staff's recommendation.**

5 A. Staff does not consider it reasonable for Washington ratepayers to bear the financial  
6 burden of environmental remediation activities that occur in jurisdictions that do not  
7 contribute in any way to rendering or improving the service in Washington. The  
8 order in the aforementioned docket also states:

9 The level of environmental remediation costs allocable to Washington  
10 and subject to this accounting treatment shall be consistent with the  
11 inter-jurisdictional cost allocation methodology then in effect for the  
12 Company.<sup>72</sup>

13  
14 The method used by the Company to account for the expenses related to this  
15 adjustment is at fundamental odds with the Commission's interpretation of used and  
16 useful and the West Control Area cost allocation methodology.

17  
18 **Q. What is the effect of Staff's recommendation for this adjustment?**

19 A. Staff's proposal is to include only the expenses that were incurred to fund  
20 environmental remediation projects situs assigned to Washington.<sup>73</sup> The amounts  
21 corresponding to this adjustment and any adjustments to tax will be incorporated in  
22 the calculations of revenue requirement of Commission's witness Mr. Jason Ball.

23  

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<sup>71</sup> O'Connell, Exh. No. ECO-6 (Pacific Power Response to Staff Data Request 69).

<sup>72</sup> *Wash. Utils. & Transp. Comm'n v. Pacific Power*, Docket UE-031658, Order 01 ¶ 19 (Apr. 27, 2005).

<sup>73</sup> O'Connell, Exh. No. ECO-7 (Based on Pacific Power Response to Staff Data Request 155).

1 Q. Does this conclude your testimony?

2 A. Yes.