#### BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Pacific Power & Light Company, Report concerning its progress in meeting its conservation target during the preceding biennium

Avista Corporation, Report concerning its progress in meeting its conservation target during the preceding biennium

Puget Sound Energy, Report concerning its progress in meeting its conservation target during the preceding biennium

Avista Corporation, Prudence of natural gas demand side management program expenditures during the prior two years DOCKET NO. UE-100170

DOCKET NO. UE-100176

DOCKET NO. UE-100177

DOCKET NO. UG-121026

### **COMMENTS OF PUBLIC COUNSEL**

# **JULY 16, 2012**

#### I. OVERVIEW AND CONTEXT

### A. Significant Initial Achievements.

1. There have been significant accomplishments during this initial biennial period of implementing the conservation related requirements of the Energy Independence Act (EIA). All three electric Investor Own Utilities (IOUs) set conservation targets for the 2010-2011 biennium that were approved by the Commission. All three companies have reported that they have met, and exceeded those targets. Public Counsel has reviewed those reports, and as described below we are requesting that each utility submit revised reported results of conservation performance. Nevertheless, based on our preliminary review, while we have recommendations related to revisions of reported conservation savings, even with those revisions, each of the three companies

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COMMENTS OF PUBLIC COUNSEL DOCKET NOS. UE-100170, UE-100176, UE-100177, UG-121026

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would still meet their biennial target. This is a major accomplishment for each of the three companies and we applaud their hard work to deliver energy efficiency savings for their customers.

2. Increasingly, energy efficiency is being treated more as the energy resource that it should be—delivering a critically valuable, least-cost resource to the utility and its ratepayers. Standards are being raised, and we are seeing the utilities respond to the challenges associated with enhanced expectations and higher scrutiny that are naturally associated with the increased investment and achievement of utility energy efficiency programs. For example, the utilities are stepping up to meet higher expectations regarding the evaluation, measurement, and verification (EM&V) of their conservation portfolio. Certainly, we are still learning, as this is just the initial biennial period under the EIA conservation requirements. There are areas for further development and progress, but we do want to recognize the accomplishments and significant progress that has been made during this initial biennial period.

Several common themes and areas of focus have emerged during the 2010-2011 biennium. The companies have engaged in more robust, active dialogue with their conservation Advisory Groups. This is consistent with the increased level of stakeholder input and transparency contemplated in the Commission's Final Orders approving the 2010-2011 biennial targets. In addition, as described more fully below, EM&V has been a major area of focus for each utility and the Advisory Groups. Some of the highlights as far as major accomplishments during the 2010-2011 biennium are summarized below.

<sup>&</sup>lt;sup>1</sup> See, e.g. Docket No. UE-100176, Order 01, ¶ 59.

- Avista has made important gains in evaluation, measurement, and verification (EM&V), as described more fully below. Avista was the first utility to develop an EM&V Framework document, an important guidance document developed with stakeholder input. Avista's programs are now on a regular evaluation cycle. The Company also retained a consultant, Cadmus, to conduct an independent, third-party verification of reported conservation savings. One of the key tasks performed by Cadmus was to develop a Technical Reference Manual (TRM), documenting the unit energy savings estimates (UES) for Avista's prescriptive measures. Avista also held at least seventeen meetings of its Demand-side Management (DSM) Advisory Group, two Technical Committee meetings, and numerous webinars or conference calls.<sup>2</sup>
- 5. PacifiCorp has reinvigorated its DSM Advisory Group. While this group had not convened in regular meetings prior to the development of conservation targets for 2010-2011, during the past two years the Advisory Group has met at least quarterly, including eleven meetings in 2011. The Company developed an initial Evaluation, Measurement, and Verification (EM&V) Framework document, a "living" document that will be updated periodically. PacifiCorp has also increased its focus on evaluation, to ensure their programs are evaluated on a two-year schedule.
  - Puget Sound Energy has substantially enhanced reporting to stakeholders and the Commission, with significant detail provided in a user-friendly format, with Executive Summary and critical information provided up-front. In addition, the reporting format of PSE's major filings (Biennial Conservation Plan, Annual Reports, Biennial Conservation Report) allows stakeholders to identify and review more detailed information with ease. These were important

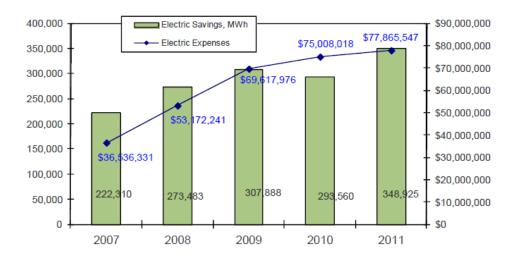
<sup>3</sup> Docket No. UE-100170, Biennial Conservation Report, Appendix 2, pp. 2-3.

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<sup>&</sup>lt;sup>2</sup> Docket No. UE-100176, Exhibit No. BWF-3, p. 1. Several of these meetings were convened as part of the 2010 EM&V Collaborative, resulting in the development of the EM&V Framework and initial EM&V Annual Plan.

developments, particularly because as PSE's programs have grown dramatically over the past five years (shown in the chart below), it became clear that prior reporting formats and the level of detail provided therein, were no longer sufficient.

Figure 1: PSE EES Electric Programs; Savings and Expenditures—Five-year Trends<sup>4</sup>



7. Related to EM&V, PSE was the first utility to develop a database system documenting the unit energy savings (UES) estimates for all prescriptive measures—PSE's Measure Metrics system was in place prior to this biennium. PSE also developed an EM&V Framework, and has instituted a formal process for review of evaluation results to inform program design changes.

PSE retained SBW (with KEMA as subcontractor), to conduct an independent, third-party review of portfolio reported conservation savings. The Company also continues to convene its

<sup>&</sup>lt;sup>4</sup> PSE EES 2011 Annual Report, p. 22, Figure 1b.

conservation Resource Advisory Group (CRAG) on a regular basis. In the 2011-2012 Biennium, the CRAG met twelve times <sup>5</sup>

# **B.** Structure of Public Counsel Comments.

8. Public Counsel's comments are structured in the following manner. First, in Section II we provide a general overview with respect to certain topics: EM&V, reported savings for Northwest Energy Efficiency Alliance (NEEA), review of DSM prudence, and a description of Public Counsel's review of the Biennial Conservation Report (BCR) filings of the three utilities. These topics are common to all of the companies, but may be addressed in different ways. We provide a description of the current context, and our hope that in the future there will be more consistency among the utilities on these issues. Beginning in Section III, we will provide specific comments for each utility related to their BCR, and will identify specific recommendations regarding revisions to utility reported conservation savings.

# C. Public Counsel Recommendations.

- 9. For each utility, Public Counsel recommends revisions to reported utility conservation savings achievement toward the biennial conservation target for 2010-2011.
  - In Docket UE-100176, we recommend Avista reduce their reported conservation savings achievement by 3,961,851 kwh for the *Simple Steps, Smart Savings* TM retail CFL program, so that reported savings are consistent with Commission conditions 6(b) and 6(c) of Order 01.
  - In Docket UE-100170, we recommend Pacificorp reduce their reported conservation savings achievement by 5,058,749 kwh to remove savings for the Energy Education in Schools program, so that reported savings are consistent with Commission conditions 6(b) and 6(c) of Order 02.
  - In Docket UE-100177, we recommend PSE reduce their reported conservation savings achievement by 7,938 MWh to incorporate the adjustment recommended by SBW in

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<sup>&</sup>lt;sup>5</sup> See, PSE EES 2010 Annual Report, pp. 215-218, and PSE EES 2011 Annual Report, pp. 230-233, for meeting dates, summaries, and key outcomes.

their review of PSE's reported savings, conducted pursuant to Condition (K)(6)(g) of the Settlement Agreement approved and adopted by the Commission in Amended Order 05.

#### II. OVERVIEW OF COMMON ISSUES

### A. Evaluation, Measurement, and Verification (EM&V).

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One of the most significant areas of impact resulting from the EIA is the substantially enhanced level of focus on EM&V. The Commission's approval of electric conservation targets for this initial biennium included several conditions pertaining to EM&V. While the precise wording and language may vary slightly, the companies were required to do the following:

- Develop a written EM&V Framework that guides the utility's approach to evaluation, measurement, and verification. 6
- Perform EM&V annually of selected programs, such that, over a multi-year schedule, all major programs are covered during the multi-year EM&V cycle. The EM&V function includes impact, process, market, and cost test analyses.
- Provide opportunities for the Advisory Group to review and advise on EM&V protocols for conservation programs.<sup>8</sup>
- Utilize the Northwest Power and Conservation Council's (Council) Regional Technical Forum (RTF) "deemed" savings for electricity measures. If the utility did not rely on RTF approved estimates, such estimates must be based on rigorous impact evaluation that has verified savings levels, and be presented to the Advisory Group for comment. 9
- Provide evaluation reports involving analysis of program impacts and process impacts that were evaluated in the prior year as part of the Annual Report on Conservation. <sup>10</sup>
- Spend a certain portion of its conservation budget on EM&V. Avista's spending requirement was 3-6 percent, and Pacificorp's requirement was 4-6 percent. PSE's requirement was to spend 1-3 percent on evaluation, and to provide the CRAG with

<sup>&</sup>lt;sup>6</sup> Docket No. UE-100170 (PacifiCorp), Order 02, July 29, 2010, ¶54 (Condition (3)(a)(i)); Docket No. UE-100177 (PSE), Order 05 (Amended), October 13, 2010, Settlement Agreement, Section K (3)(a)(i). Avista had already begun developing an EM&V Framework in conjunction with the Commission's Final Order in the 2009 general rate case, requiring Avista to convene an EM&V Collaborative and file an EM&V plan by September 1, 2010. Docket Nos. UE-090134 & UG-090135 & UG-060518 (consolidated), Order 10, December 22, 2009, ¶345.

<sup>&</sup>lt;sup>7</sup> Docket No. UE-100170 (PacifiCorp), Order 02, ¶57, Condition (6)(f); Docket No. UE-100177 (PSE), PSE Settlement Agreement, Section (6)(f); Docket No. UE-100176 (Avista), Order 01, ¶62, Condition (6)(f). 

<sup>8</sup> Condition (6)(e).

<sup>&</sup>lt;sup>9</sup> Conditions (6)(b) and (6)(c). The conditions for PSE and PacifiCorp reference "generally accepted impact evaluation data and/or other reliable and relevant source data that has verified savings levels...."

<sup>10</sup> Condition (6)(f).

detailed descriptions of its measurement and verification (M&V) as well as an estimate of costs associated with M&V. <sup>11</sup> (For the 2012-2013 biennium, utilities are required to spend a "reasonable" portion on EM&V, rather than a specific amount).

In addition to the requirements listed above, two of the utilities, Avista and PSE, were required to retain an independent, third-party to review reported conservation savings. The specific wording of these requirements differed somewhat. The requirement for PSE was as follows:

A one-time only, independent third-party evaluation of portfoliolevel electric energy savings reported by PSE for the 2010-2011 biennial period, from existing conservation programs operated during that period, shall be conducted to verify those savings. <sup>12</sup>

The methodologies of the third-party evaluations of reported savings differed, as discussed in more detail below in comments pertaining to Avista and PSE. A similar requirement was not included as a condition in the approval of PacifiCorp's 2010-2011 biennial conservation target. For the 2012-2013 biennium, all three utilities are required to have an independent, third-party evaluation of reported savings. Our hope is that going forward, these evaluations will have consistent methodologies.

<sup>&</sup>lt;sup>11</sup> Condition (6)(f)

<sup>&</sup>lt;sup>12</sup>Docket No. UE-100177 (PSE), Settlement Agreement, Section K (6)(g).

<sup>&</sup>lt;sup>13</sup> PacifiCorp's proposed conservation targets were the first to be approved by the Commission, and stakeholders did not specifically re PSE's Biennial Conservation Plan, Attachment 2, 2010 & 2011 Electric Results by Program. commend this requirement for PacifiCorp.

13. The table below provides a summary of relevant EM&V documents and activities at the three companies.

Table 1. Status of EM&V Documents and Activities, 2010-2011 Biennium

Company	EM&V Framework	Annual EM&V Plan	Reference Manual for UES	Independent Third-Party Review of Portfolio Savings
Avista	Yes	Yes	Yes	Yes
PacifiCorp	Yes	Yes	No*	No **
PSE	Yes	Yes	Yes	Yes

<sup>\*</sup> PacifiCorp is required to develop a document functionally similar to a technical reference manual during the 2012-2013 biennium.

# B. Northwest Energy Efficiency Alliance (NEEA) Reported Savings.

Public Counsel supports region-wide market transformation efforts, but we recognize there are challenges with estimating and reporting savings achievements of those activities. The three electric utilities have taken different approaches to reporting savings from NEEA market transformation efforts for the 2010-2011 biennium. These approaches are summarized below. At this time, we do not take a position on which approach is most appropriate. However, going forward, we do believe there should be consistency in the manner in which the utility's develop targets and report savings for NEEA.

<sup>\*\*</sup> An independent third-party review is required for PacifiCorp for the 2012-2013 biennium. Condition 6(f), Order 01, Docket UE-111880.

#### a. PSE.

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PSE's total reported NEEA savings for the 2010-2011 biennium are 47,000 MWh<sup>14</sup> which reflect 75 percent of NEEA's projected net market effect savings allocated to PSE based on NEEA's most recent forecast at the time the biennial conservation targets were set. PSE was allocated 100,835 MWh<sup>15</sup> in net market effects from NEEA for the 2010-2011 biennium, but only claims 47,000 MWh because this is the "deemed amount" that was determined in the target setting process.

Beginning in 2007, PSE began setting "deemed" savings estimates for NEEA which are relied on for both target setting and reporting. These savings estimates are 75 percent of the NEEA forecasted share of PSE Net Market Effects. <sup>16</sup> PSE began using this methodology for calculating its share of NEEA's forecasted Net Market Effects as a deemed value in its targets and reported savings as a result of the Order in Docket No. UE-060266, which established PSE's Electric Conservation Incentive Mechanism. As stated in PSE's Response to Staff Informal Data Request No. 8, Attachment A,

"This was done in recognition that PSE has no control over subsequent NEEA reported savings, and should not benefit from windfall energy savings should NEEA performance exceed expectations, nor be penalized if NEEA savings are significantly lower than expected. Also, NEEA forecasts Total Regional Savings and Net Market effects based on best available information at the time, and market effects are difficult to forecast with precision. In addition, there is a time lag associated with NEEA reported savings."

<sup>&</sup>lt;sup>14</sup> PSE's Biennial Conservation Plan, Attachment 2, 2010&2011 Electric Results by Program.

<sup>&</sup>lt;sup>15</sup> 2010-2011 NEEA Results, "Report NEEA Savings Analysis PSE" excel workbook, provided by PSE in response to follow-up questions on Staff Data Request 08 on 7/12/12.

<sup>&</sup>lt;sup>16</sup> NEEA's "net market effects" (NME) savings are calculated as follows: NME= Total Regional Savings-Naturally Occurring Baseline-Local Programs.

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In that response, PSE also stated that the timing difference between when NEEA reports savings and the due date of PSE's annual report to the UTC (established in Docket No. UE-970686) is another reason for claiming a conservative deemed value. This methodology was developed with input from stakeholders from Staff, Public Counsel, CTED (now Washington state Department of Commerce), and the Northwest Power and Conservation Council, and was first used in the Company's 2008-2009 targets. PSE reports the deemed savings amount regardless of whether actual savings were higher or lower. PSE's approach to reporting is a conservative one and recognizes PSE's inability to control NEEA savings as well as the difficulty in forecasting market transformation effects with precision. <sup>17</sup>

### b. Avista.

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Avista claims a total of 5.38 aMW or 47,129 MWh's from NEEA results for the 2010-2011 biennium. Avista's methodology for reporting savings is based on NEEA's calculation of total regional savings within Avista's service territory less those which were captured as part of Avista's local DSM portfolio which total 1.45 aMW for the biennium. Avista also includes a one-time baseline adjustment which adjusts the 6th Power Plan baseline for Residential Lighting, Televisions, and Ductless Heat Pump initiatives because, according to the Company, NEEA has more complete 2009 data than the Northwest Power Planning Council. This adjustment increases total NEEA savings by 1.13 aMW. Total savings equals 5.38 aMW for the biennium,

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<sup>&</sup>lt;sup>17</sup> PSE's Response to Staff Data Request 9, Attachment A.

<sup>&</sup>lt;sup>18</sup> Direct Testimony of Bruce Folsom, p. 10, Docket UE-100176.

including this one-time adjustment and the removal of certain savings from Avista's local DSM portfolio. <sup>19</sup>

# c. PacifiCorp.

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PacifiCorp's total reported NEEA savings are 22,162 MWh for the 2010-2011 biennium. This includes adjustments to 2010 and 2011 NEEA savings which increase total savings by 4,996 MWh. The savings adjustments made for 2010 and 2011 each have three components. The adjustments made in 2010 were as follows: update CFL sales based on updated sales assumptions from NEEA (reduced savings by 789 MWh), remove line losses from 2010 savings to be consistent with how NEEA originally forecasted the target (reduced savings by 388 MWh), and adjust 2010 savings relative to NEEA's assumed baseline assumptions that were in place when PacifiCorp's targets were established (increases reported savings by 6,094 MWh). In 2011, PacifiCorp made the following adjustments: update CFL sales based on updated sales assumptions from NEEA (increased savings by 131 MWh), remove line losses from 2011 savings to be consistent with how NEEA originally forecasted the target (reduced savings by 1010 MWh), and an adjustment to fix a rounding error originally included in NEEA's report (reduces savings by 219 MWh).

As explained in the NEEA memorandum (Appendix 1), PacifiCorp requested that NEEA use fixed baseline assumptions from April 2010 in developing final savings for the biennium.

Specifically, these include:

<sup>&</sup>lt;sup>19</sup> Exhibit No. LBH-4, p. 2 Docket UE-100176. In response to Public Counsel Data Request 1, the Company provided an updated "final" memo from NEEA dated June 28<sup>th</sup>, 2012 which identifies savings for the 2010-2011 biennium. These savings are consistent with the amounts provided in the original NEEA dated March 30, 2012 memo included in Exhibit No. LBH-4.

<sup>&</sup>lt;sup>20</sup> PacifiCorp's Response to Public Counsel Data Request 1.6.

- NEEA uses the same savings rate baseline and technical assumptions (such as hours of use) that it used in April 2010
- NEEA applies the same naturally occurring baseline market share forecast in its April 2010 report.
- NEEA allocates the savings to PacifiCorp based on its funder share. For savings from currently funded initiatives, PacifiCorp receives its current funder share of 3.04 percent and for savings from previously funded initiatives, such as Residential Lighting, PacifiCorp receives its previously funding share of 2.56 percent.
- 21. In essence, PacifiCorp's approach restates 2010-2011 NEEA savings to reflect what savings would have been had no assumptions changed since the time the target was set.
- 22. The different approaches take by the utilities in reporting savings are also reflected in the proportion of each utilities conservation portfolio dedicated to NEEA. Below are two charts which compare the NEEA expenditures and reported savings for each of the three utilities for the 2010-2011 biennium.

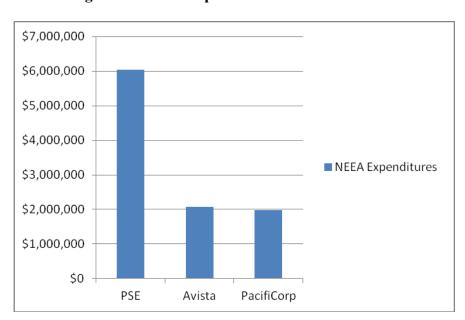


Figure 2: NEEA Expenditures 2010-2011 Biennium

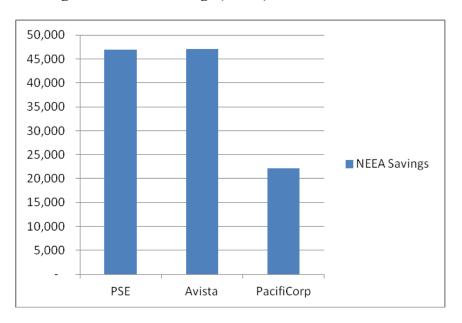


Figure 3: NEEA Savings (MWh) 2010-2011 Biennium

### C. DSM Prudence.

- 23. There is currently some uncertainty regarding the timing and approach to prudence determination of conservation expenditures for different utilities. We believe this is an area that requires further attention from all stakeholders and the Commission, in order to develop a consistent approach and clear process for DSM prudence review. The Commission has prudence standards for supply-side resources, and a clear process for review. With respect to demand-side resources, however, there has not been a similarly defined process or set of standards applied to the review of conservation acquisition.
- Each electric conservation tariff rider was developed at a different time and under varying circumstances, and the approach to determining prudence has varied for each Company.
   Based on Public Counsel's research, we have found the following information about the origins of each of the tariff riders and the associated prudence review.

- Avista (as Washington Water Power) committed to demonstrating the prudence of program expenditures in future general rate cases<sup>21</sup> at the time its tariff rider was established in Docket Nos. UE-941375 and UE-941377. This agreement was repeated in the Commission's decision in Dockets No. UE-991606 and UG-991607, which stated, "Pursuant to prior Commission authorization in Schedules 91 & 191, The Company is required to demonstrate the prudence of its energy efficiency programs and expenditures at the time of a general rate case." In Docket Nos. UE-110876 and UG-110877 the Commission approved a joint motion of Avista, Commission Staff, and Public Counsel, requiring Avista to file testimony and evidence regarding the prudency of DSM expenditures in conjunction with the Company's June 1, 2012 conservation compliance filing pursuant to the EIA.<sup>23</sup>
- PacifiCorp's tariff rider was established in an Accounting Order in Docket No. UE-001457, where the Commission specifically stated "The prudency of energy efficiency expenditures is not presupposed. PacifiCorp d/b/a Pacific Power & Light Company bears the burden of proving the fairness, justness, and reasonableness of these matters in future rate proceedings."<sup>24</sup>
- PSE's electric conservation tariff rider was established in Docket No. UE-970686, per the Settlement Stipulation in the Merger between Puget Power and Washington Natural Gas. 25 While we cannot find any specific mention of the prudence review methodology for the electric tariff rider, the timeline for the review of the electric tariff rider review for the newly merged Puget Sound Energy was designed to match that of the Washington Natural Gas conservation tracker mechanism, which was developed in Docket No. UG-950287 and UG-950288. In a letter of support of the gas mechanism, Public Counsel stated, "The prudence and appropriateness of program expenditures will be considered when the Company files its annual DSM report and the tracker rates are calculated." 26

<sup>&</sup>lt;sup>21</sup> In Docket Nos. UE-941375/941377, UG-941376/941378, Washington Water Power filed a letter with the Commission on December 12, 1994 which contained a list of the agreements between Staff and the Company, included the following: "WWP will commit to work with Staff on a listing of activities that fit broad categories of appropriate DSM spending. The prudency of these expenditures is not presupposed and can be argued in a future rate case. WWP will not Object to this review in a future rate case by invoking a legal retroactive ratemaking argument."

<sup>&</sup>lt;sup>22</sup> Dockets No. UE-991606 and UG-991607, Third Supplemental Order, ¶97.

<sup>&</sup>lt;sup>23</sup> UE-110876 & UG-110877, Order 05, Order Granting Joint Motion for Resolution of DSM Prudence, August 18, 2011.

<sup>&</sup>lt;sup>24</sup> Docket No. UE-001457, Accounting Order, October 25, 2000, p. 5

<sup>&</sup>lt;sup>25</sup> The Stipulation stated, "Electric conservation expenditures after December 31, 1996...will be subject to recovery through an alternative recovery mechanism to be proposed by PSE in a separate filing subsequent to merger approval.

<sup>&</sup>lt;sup>26</sup> Comments of Public Counsel, Dockets No. UG-950287 and UG-950288, filed, May 8, 1995, p. 2. On May 11, 1995, the Commission issued a letter to Washington Natural Gas stating that the UTC authorized the accounting treatment for gas conservation investment agreed to between the Company, Staff, and Public Counsel, as described in the petition in Docket UG-950288.

25. In summary, Public Counsel believes that it would be useful to develop clarity and consistency regarding review of DSM prudence. We understand that Staff's comments may include a discussion around developing consistent practices around DSM prudence review. We look forward to reviewing those comments, and possibly commenting further on this issue.

# D. Public Counsel Review of Biennial Conservation Reports.

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Public Counsel's review of the June 1, 2012 conservation compliance reports is not performed in a vacuum. Public Counsel participates in conservation advisory groups for each utility. We have submitted comments regarding related prior filings, including the biennial conservation plans for each utility, as well as DSM tariff rider filings. Public Counsel's review of the conservation-related EIA filings is within this broader context. Our review of the utility biennial conservation reports is focusing on two major topics:

- 1. Review of reported results and/or verified results; and
- 2. Review of compliance with statutory requirements and Commission conditions.

Certainly, the biennial conservation reports filed by Avista, PacifiCorp, and PSE are quite different in terms of the volume of material provided, as well as the organization and structure of the report. Avista's filing is unique because it also requests a finding of prudence regarding DSM expenditures and performance for 2010-2011, pursuant to a motion granted in the 2011 rate case. Avista filed testimony of three witnesses and numerous exhibits, in two very large binders. PSE's BCR is 21 pages, and includes eight attachments. The most significant of these is the Independent Third-Party Review of PSE's 2010-2011 Electric Conservation Energy Savings.<sup>27</sup> PSE's BCR also provides a table referencing "all supporting documents and WUTC

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<sup>&</sup>lt;sup>27</sup> The Third Party Review also incorporates the C/I retrofit Evaluation Report conducted by Navigant and two reports providing documentation of savings associated with the Home Energy Reports program.

filing pertaining to the development, progress reporting, and confirming results of the 2010-2011 biennial achievement." PacifiCorp's BCR is seventeen pages, as well as three appendices.

The BCR also includes web-links to various supporting documents.

Public Counsel hopes that going forward, a common reporting template can be developed, in order to provide for greater consistency in the reporting of conservation achievement. This would also help facilitate Commission and stakeholder review of the biennial conservation reports.

## III. AVISTA (UE-100176 & UG-121026)

## A. Biennial Target and Reported Conservation Achievement.

29. Avista's biennial target for 2010-2011 was 128,603 MWh. Avista developed this target using the Council's 6<sup>th</sup> Plan Calculator. Avista's target included a minimum of 125,982 MWh from conservation measures that do not rely on fuel-switching, because the Council has not included electric-to-gas fuel switching in its menu of conservation measures.

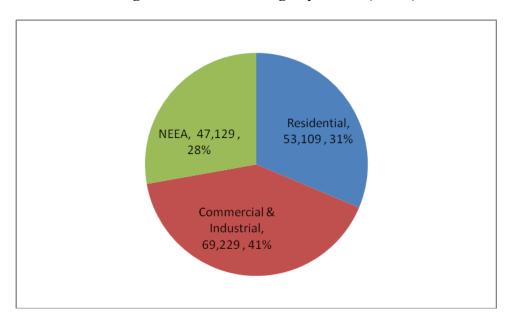
Avista reported conservation savings achievement of 169,467 MWh for the biennium, exceeding their target by 32 percent.<sup>29</sup> The figure below shows reported savings achievement by sector.

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<sup>&</sup>lt;sup>28</sup> PSE BCR, p. 20, Table 3.

<sup>&</sup>lt;sup>29</sup> UE-100176, Exhibit BWF-1T, pp. 7-8.

Figure 4: Avista—Savings By Sector (MWh)



31. The largest amount of savings (41 percent), were achieved in the non-residential sector (commercial and industrial). The bulk of non-residential savings are from site-specific measures, or custom projects involving HVAC, lighting, insulation, windows, or other upgrades. In the residential sector, 75 percent of savings are attributed to CFL programs, with 23,348 MWh from the CFL contingency program and 16,401 MWh from the retail CFL buy-down program (*Simple Steps*). NEEA savings represent 28 percent of savings, and are much higher than Avista's historical reported NEEA savings. This is primarily because a different methodology was used to calculate savings for this biennium. With respect to cost-effectiveness, the Total Resource Cost (TRC) ratio was 1.58 for the electric portfolio for the 2010-2011 biennium.

<sup>&</sup>lt;sup>30</sup> UE-100176, Exhibit MSK-2, Table 1-3, p. 13 (*Simple Steps* savings), and Table 4-4, p. 97 (Residential CFL contingency savings).

<sup>&</sup>lt;sup>31</sup> UE-100176, Direct Testimony of Bruce W. Folsom, Exhibit BWF-1T, p. 8. The natural gas TRC ratio was 1.19 for the biennium. *Id.* 

It is somewhat unclear as to whether Avista is seeking to include distribution savings in their reported conservation achievement as filed with the Commission. In summarizing the Company's performance, Mr. Folsom states, "Avista exceeded its 2010-2011 BCP electric targets by 32%, achieving 169,467 MWh from demand-side energy efficiency toward its goal of 128,603 MWh." This level of achievement excludes distribution savings of 3,512 MWh. Later in his testimony, Mr. Folsom indicates Avista is claiming these distribution savings for this period. Avista's report to the Department of Commerce does include distribution savings, with total achievement of 172,979 MWh. The chart shown above reflects total achievement of 169,467 MWh, based on Mr. Folsom's statement, summarizing the Company's achievement. In Public Counsel's view, this is consistent with the Commission's conditions approving Avista's biennial target, as distribution savings were not independently evaluated and verified. The company of the c

# **B.** Reported Expenditures.

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33. Avista reported total expenditures of \$31.18 million for the biennium. Expenditures by sector are shown in the figure below.

<sup>&</sup>lt;sup>32</sup> UE-100176, Direct Testimony of Bruce W. Folsom, Exhibit BWF-1T, pp. 7-8.

UE-100176, Direct Testimony of Bruce W. Folsom, Exhibit BWF-1T, p. 21.

<sup>&</sup>lt;sup>34</sup> Avista Utilities Compliance Report to Department of Commerce Per WAC 480-109-040, June 1, 2012, p. 1.

<sup>35</sup> UE-100176, Order 01 (May 13, 2010), ¶ 62, Conditions 6(b), 6(c), and 6(f).

NEEA, \$2,082,297,7% Distribution Efficiency, \$1,815,799,6% Commercial & Industrial, \$13,046,075, 42%

Figure 5: Avista—Expenditures by Sector

# C. Compliance.

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#### 1. Statute and WAC.

RCW 19.285.070, and WAC 480-109-040 provide the reporting requirements established by the EIA that must be met for both the conservation and renewable energy components of the EIA. Regarding the conservation report specifically, the Company must file, on or before June 1, 2012, and annually thereafter, a report which identifies its progress in meeting conservation targets established under RCW 19.285.40. In addition, the Company must also provide the expected and actual electricity savings results and all expenditures made to acquire conservation. The Company must also provide its Biennial Conservation Report on its website to make the information available to its customers.<sup>36</sup> Based on our review of Avista's biennial conservation

<sup>&</sup>lt;sup>36</sup> RCW 19.285.070 and WAC 480-109-040 (4).

report and supporting material we believe the Company has complied with the reporting requirements for conservation under the EIA.

# 2. Conditions Approving Avista's 2010-2011 Conservation Target.

The Commission's Order 01 in Docket UE-100176, approving Avista's conservation targets, granted approval subject to a set of conditions.<sup>37</sup> Those conditions, together with statutory requirements and Commission rules, provide the framework for implementation of the conservation requirements of the EIA. The Commission's conditions address the following issues: work with stakeholder advisory group, submittal of annual budget and energy savings detail, maintaining descriptions of program details, approved strategies for selecting and evaluating energy conservation savings, program design principles, required reports and filings, public involvement, cost-effectiveness calculations, and cost-recovery through a tariff rider.

As a result of implementation of the conservation requirements of the EIA, and the conditions, Avista has considerably enhanced its work with the Advisory Group. In addition, Avista has devoted significant additional effort toward EM&V, as discussed more fully below. The Company is providing substantially greater detail in the reports filed with the Commission. We recognize and applaud Avista for the significance of these accomplishments. As expectations have been raised regarding conservation, and achievement and expenditures have increased, so too has the level of scrutiny. Avista has been stepping up to these higher expectations.

For Public Counsel, the primary lens through which we examined Avista's reported results, is whether they are consistent with the Commission's conditions. In large part, we

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<sup>&</sup>lt;sup>37</sup> UE-100176, Order 01 (May 13, 2010), ¶57-67.

believe the Company has met those requirements. While there are only a couple of issues where we have some concerns related to Avista's reported conservation savings, and they are fairly limited and technical in scope, we nevertheless believed it is important to raise these issues with the Commission. There's no doubt that all stakeholders are learning quite a bit through this initial implementation phase of the EIA. These issues illustrate some areas where there are inconsistencies as to how the three electric utilities are reporting and counting conservation savings.

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For one issue in particular, the savings reported for the *Simple Steps* retail CFL program, Public Counsel believes that Avista's reported results are not consistent with the Commission's conditions, as discussed more fully below. Accordingly, we recommend that Avista revise their reported biennial conservation savings by 3,961,851 kwh. Avista would still exceed their biennial conservation target, with this revision. WAC 480-109-040(3) contemplates that a utility report of conservation may be revised as a result of Commission review, and if so, such a revised report must be submitted to the Commission and the Department of Commerce.

39.

Conditions 6(b) and 6(c). One of the conditions in the Commission's approval of Avista's 2010-2011 conservation target calls for the Company to utilize the Northwest Power and Conservation Council's (Council) Regional Technical Forum (RTF) "deemed" savings for electricity measures.<sup>38</sup> If Avista does not rely on RTF approved estimates for prescriptive programs, "such estimates must be based on a rigorous impact evaluation that has verified savings levels, and be presented to the Advisory Group for comment."<sup>39</sup>

<sup>&</sup>lt;sup>38</sup> UE-100176, Order 01, ¶62, Condition (6)(b).

<sup>&</sup>lt;sup>39</sup> UE-100176, Order 01, ¶62, Condition (6)(c).

Avista's reported savings toward their biennial conservation target includes 16,401,152 kwh for the Simple Steps. Smart Savings TM retail CFL program. 40 The program is sometimes described as an "upstream" or "retail buy-down" program because it offers CFLs at a discounted price through various retail outlets, such as Costco, Wal-Mart, and Home Depot. The savings estimate for this program has six different parameters, including the in-service rate (ISR), or percentage of CFLs installed.<sup>41</sup>

Avista's reported savings for this measure incorporates an ISR (installation rate) of 91 percent. 42 This is a projected estimate that is based on the CFL contingency evaluation logistic model, forecasting an estimated installation rate after three years. As such, this is a projection that has not yet been verified. Mr. Khawaja explains in his testimony that savings for 2011 were verified with an installation rate of 39 percent, but that 2012 and 2013 savings for the CFL contingency program are projected, and are "subject to verification through surveys." 43 Mr. Khawaja's direct testimony includes the following table showing the calculated ISR for 2011 and forecasted ISR for 2012 and 2013 for the CFL contingency program<sup>44</sup>:

Table 2: Residential CFL Contingency ISRs<sup>45</sup>

Year Installed	Residential Logistic Model
2011	39%
2012 (Forecasted)	35%
2013 (Forecasted)	18%
Total	<b>91%</b> <sup>3</sup>

Note 3: Total variance due to rounding.

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<sup>&</sup>lt;sup>40</sup> UE-100176, Exhibit MSK-1T, Table 2, p. 7.

<sup>&</sup>lt;sup>41</sup> UE-100176, Exhibit MSK-17, Table 2, p. 7. <sup>42</sup> UE-100176, Exhibit MSK-2, pp. 18-22. <sup>43</sup> UE-100176, Exhibit MSK-17, p. 21. <sup>43</sup> UE-100176, Exhibit MSK-17, p. 11, lines 12-14.

<sup>&</sup>lt;sup>44</sup> UE-100176, Exhibit MSK-1T, pp. 11-12.

<sup>&</sup>lt;sup>45</sup> This table is labeled as Table 7 in Exhibit No. MSK-1T.

Since the 91 percent installation rate is a projection, based upon forecasted rates of installation for 2012 and 2013, we believe this is inconsistent with Commission condition 6(c), requiring any non-RTF estimates to be based upon "rigorous impact evaluation that has *verified* savings" (emphasis added). The comparable ISR incorporated in RTF estimates at the time of the Cadmus evaluation was 64 percent for CFL twist bulbs, and 80 percent for specialty CFL bulbs. <sup>46</sup> In a data request, Public Counsel asked Avista to provide a restatement of reported savings for the *Simple Steps, Smart Savings* TM retail CFL program using RTF assumptions for the ISR. In its response, Avista indicated that savings for this program would be 12,439,301 kwh, a decrease of 3,961,851 kwh, if RTF assumptions for ISR were used. <sup>47</sup> Public Counsel therefore recommends that Avista be required to reduce reported conservation savings by 3,961,851 kwh. With this revision, Public Counsel believes Avista would be in compliance with the Commission's conditions.

#### D. Evaluation, Measurement & Verification.

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Avista has had an intensive focus on EM&V during this initial biennium. The Commission-ordered EM&V Collaborative, convened pursuant to the Final Order of Avista's 2009 general rate case, set the stage to elevate EM&V practices to a higher level to meet obligations associated with EIA implementation. Avista's EM&V Framework was developed as a result of that stakeholder collaborative, providing the overarching structure and process for

<sup>&</sup>lt;sup>46</sup> UE-100176, Avista Response to Public Counsel Data Request No. 34.

<sup>&</sup>lt;sup>47</sup> UE-100176, Avista Response to Public Counsel Data Request No. 34. These revised savings are actually slightly higher than Avista's original reported savings for this program. Avista originally reported 12,064,835 kwh, but the modifications made by Cadmus to the ISR, and other assumptions, resulted in adjusted gross savings of 16,401,152, a realization rate of 136 percent. Exhibit MSK-2, Table 1-3, p. 13.

EM&V. 48 One of the most critical components of the Framework was the identification of the need for development of a Technical Reference Manual (TRM). The TRM serves as a planning and resource document, documenting the unit energy savings (UES) estimates for all prescriptive energy efficiency measures. Avista selected Cadmus, in response to an RFP, to conduct EM&V activities for 2010-2011. In addition to the development and review of the TRM, the reports completed by Cadmus and included with Avista's June 1, 2012 conservation compliance filing are as follows:

- 1. 2010 2011 Electric Portfolio Impact Evaluation (Exhibit MSK-2)
- 2. 2010 Natural Gas Portfolio Impact Evaluation (Exhibit MSK-3)
- 3. 2011 Natural Gas Portfolio Impact Evaluation (Exhibit MSK-4)
- 4. 2010 Portfolio Process Evaluation (Exhibit MSK-5)
- 5. 2011 Portfolio Process Evaluation (Exhibit MSK-6)

These are substantial documents, amounting to over 600 pages. The portfolio impact evaluation reports provide verified savings results for 2010 and 2011, and are discussed further below. All of the impact and process evaluations outline key findings and recommendations that will inform program design changes in the months ahead.

# 1. Third-Party Verification of Reported Electric Conservation Savings.

The Multi-Sector Electric Impact Report found an overall realization rate of 89 percent -comparing reported savings to gross verified savings. For Washington, original reported savings
were 140,673 MWh, and overall evaluated savings were 125,212 MWh (this does not include

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<sup>&</sup>lt;sup>48</sup> UE-090134, UG-090135, and UG-060518 (consolidated), *EM&V Framework and Low Income Energy Efficiency Report*, Avista compliance filing dated September 1, 2010.

reported savings attributed to NEEA). <sup>49</sup> There are a few different factors that caused adjustments from reported to verified savings. First, Cadmus applied any modifications to unit energy savings (UES) in the TRM to verified savings. As Mr. Khawaja explained in his testimony, "Significant effort by Cadmus engineers and senior staff went into modifying unit energy savings (UES) values in the technical reference manual (TRM)." Second, Cadmus conducted site visits at a sample of sites to verify measure installation. Third, billing analysis was performed for certain programs, including non-residential site-specific (custom projects), residential weatherization, and low-income. The specific verification methodology varied by sector (residential, non-residential, low-income), as described in Exhibit MSK-2.<sup>51</sup>

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For the residential sector, the overall realization rate was 90 percent, as shown in Table 1-2 of Exhibit MSK-2 (p. 13). The "vast majority" of change in overall evaluated savings was due to updated UES values.<sup>52</sup> Impressively, Cadmus found very few changes to measure counts, typically verifying the number of units installed at 100 percent.<sup>53</sup> Avista is to be commended for this high verification of installed measure counts.

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The following example illustrates the distinction between verification of measure counts (units installed) and verification that the measure operates according to the specifications assumed in the savings estimate (or "deemed" estimate). Avista provided rebates to residential customers for 1,494 high efficiency air source heat pumps during the 2010-2011 biennium.

<sup>&</sup>lt;sup>49</sup> Exhibit MSK-2, p. 8, Table ES-1-2.

<sup>&</sup>lt;sup>50</sup> Exhibit MSK-1T, p. 6, ll. 5-7.

<sup>&</sup>lt;sup>51</sup> Exhibit MSK-2, pp. 14-15 (residential), pp. 58-60 (non-residential), pp. 79-83 (low-income).

<sup>&</sup>lt;sup>52</sup> Avista Response to Public Counsel Data Request No. 6.

Verification of units installed is shown in the "measure count" columns of Exhibit MSK-2, Tables 1-18, 1-20, 1-21, 1-27, 1-28, 1-29 and 1-30. In the residential sector, the lowest verification rate of units installed was 98 percent, for variable speed motors. Table 1-20, p. 37.

Cadmus verified all 1,494 as having been installed, based on random site visit sampling. In addition, Cadmus performed a metering study of a random sample of homes, and determined that 76 percent of homes used a gas furnace as backup, a significant finding as the "deemed" savings estimate assumed an electric furnace provided backup heating. <sup>54</sup> As a result, per unit savings were reduced, from 3,237 kwh to 337 kwh, resulting in a realization rate of 10 percent for this measure. <sup>55</sup>

For the non-residential sector, Cadmus evaluated 223 of 4,215 projects, representing 29 percent of reported savings for the non-residential sector in 2010 and 2011.<sup>56</sup> Avista's reported energy savings were verified by Cadmus through engineering analysis, verification site visits, metering, and some project level billing analysis.<sup>57</sup> The sampling design examined a "census" group of projects with large savings impacts, as well as a random sample of projects within each of the six strata in this sector.<sup>58</sup> The overall realization rate for Avista's non-residential sector, in Washington, was 92 percent, or 66,011,612 kwh.<sup>59</sup>

The Electric Impact and Process Evaluation Reports completed by Cadmus contain numerous recommendations that will assist Avista with adaptively managing their programs to enhance their effectiveness.

# 2. Third-Party Verification of Natural Gas Reported Conservation Savings.

Verification of Avista's natural gas DSM portfolio was performed by Cadmus and provided in Exhibits MSK-3 (2010) and MSK-4 (2011). In 2010, Cadmus found a savings

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<sup>&</sup>lt;sup>54</sup> UE-100176, Exhibit MSK-2, p. 108.

<sup>&</sup>lt;sup>55</sup> UE-100176, Exhibit MSK-2, Table 1-20, p. 37.

<sup>&</sup>lt;sup>56</sup> UE-100176, Exhibit MSK-2, p. 53.

<sup>&</sup>lt;sup>57</sup> UE-100176, Exhibit MSK-2, p. 58.

<sup>&</sup>lt;sup>58</sup> UE-100176, Exhibit MSK-2, p. 59.

achievement rate of 91 percent in Washington, compared to the IRP goal. <sup>60</sup> In 2011, verified natural gas savings were 67 percent of the Washington IRP goal, 1,102,029 therms achieved compared with an IRP savings goal of 1,639,406 therms. <sup>61</sup> For 2011, the lowest realization rate was in the residential sector, at 38 percent. <sup>62</sup> The 2011 report states: "[o]ur evaluation verified nearly 100 percent of the claimed measures. The achieved realization rates are driven entirely by the lower than expected per unit energy savings." <sup>63</sup> In 2011, approximately 36 percent of verified savings were in the residential and low-income sectors, and 64 percent were from the non-residential sector

# **E.** Specific Issues for Further Discussion.

51. In general, as discussed previously, Avista has reported significant conservation achievement during this initial biennium. Accompanying the Company's June 1, 2012 filing were rigorous impact and process evaluations of their conservation portfolios. Admittedly, the issues described below are more technical nature, and in many ways illustrate that estimating conservation savings involves both science and art – there is room for subjectivity and judgment calls. As we have stated previously, the savings estimates used by the utility are critical because they form the building blocks of reported conservation achievement. 64

The issues discussed below pertain to two different programs – Energy Star Appliances and Refrigerator and Freezer Recycling – where Cadmus, on behalf of Avista, has modified the

<sup>&</sup>lt;sup>59</sup> UE-100176, Exhibit MSK-2, Table 2-3, p. 54.

<sup>&</sup>lt;sup>60</sup> UE-100176 & UG-121026, MSK-3, Table 1-4, p. 4.

<sup>&</sup>lt;sup>61</sup> UE-100176 & UG-121026, MSK-4, Table ES-3, p. 9. Because Avista did not achieve at least 75 percent of their natural gas DSM target, the Company will not be eligible to recover additional revenues from Schedule 101 customers (Residential and Small Commercial), under Schedule 159, the partial decoupling program tariff.

<sup>&</sup>lt;sup>62</sup> UE-100176 & UG-121026, MSK-4, Table ES-3, p. 9. <sup>63</sup> UE-100176 & UG-121026, MSK-4, p. 9.

<sup>&</sup>lt;sup>64</sup> See, e.g., UE-100176, Comments of Public Counsel, March 5, 2010, ¶ 50.

RTF savings estimates to remove what it considers to be a 'net-to-gross' adjustment. In Public Counsel's view, however, the RTF approach is not a 'net-to-gross' adjustment, but instead, reflects the development of baseline conditions in a manner consistent with the Council's methodology. This is another example where the companies are taking different approaches to estimating savings. PSE uses RTF approved savings for the programs discussed below, while Avista has developed savings estimates using a modified baseline. This is another area that in Public Counsel's view, we believe the companies should be more consistent.

Energy Star Appliances. Avista's reported savings toward their biennial conservation target includes over 2,444 MWh of savings for the Energy Star products program, which provides rebates for purchase of Energy Star clothes washers, dishwashers, refrigerators, and freezers. The RTF approved estimates for these measures reflect a weighted-average baseline condition whereby a portion of units are Energy Star. In essence, this assumes that even in the absence of the program, some portion of appliances purchased would be Energy Star appliances. For example, the RTF baseline for refrigerator replacement assumes that 32 percent of baseline units are Energy Star-qualified. Public Counsel believes that the RTF's approach is consistent with Council guidelines, which define "baseline" as reflecting codes or standards, "or current practices." The RTF approach is also consistent with the definition of "baseline" included in the Avista EM&V Framework: "conditions, including energy consumption, which would have occurred without implementation of the subject or project or program."

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<sup>67</sup> Avista EM&V Framework, September 1, 2010, p. 5.

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<sup>&</sup>lt;sup>65</sup> UE-100176, Exhibit MSK-2, p. 33.

<sup>&</sup>lt;sup>66</sup> A reference to the Council guidelines are provided in the Commission's Order 05, UE-100176, ¶ 63. See also, <a href="http://www.nwcouncil.org/energy/powerplan/6/supplycurves/1937/Methodology.pdf">http://www.nwcouncil.org/energy/powerplan/6/supplycurves/1937/Methodology.pdf</a>. This document was also provided as Appendix B to Staff's March 5, 2010 Comments in UE-100170, UE-100176, UE-100177.

Cadmus has adjusted the RTF baselines, however, to remove Energy Star appliances, thereby lowering the baseline, and increasing the per unit savings for each measure within this program. For clothes washers, for example, Avista's reported savings toward their biennial target reflect a unit energy savings of 433 kwh per unit. The comparable RTF approved estimate for clothes washers is no higher than 240 kwh per unit, depending upon the type of washer and dryer.

Refrigerator and Freezer Recycling. Similar to the Energy Star appliance program,

Avista's reported savings toward their biennial target include savings for this program that

modify the RTF approved savings estimates. The RTF estimates incorporate an assumption that

50 percent of participants who decommission a refrigerator or freezer will ultimately replace the
appliance.

68 Cadmus has modified the savings estimates to remove this replacement
assumption. Public Counsel understands that Cadmus views the RTF replacement assumption as
an application of a "net-to-gross" adjustment. Our understanding is that the RTF instead
considers this a reflection of baseline conditions, consistent with Council guidelines discussed
above.

Notably, the issues identified above for further discussion pertain to reported savings and underlying savings estimates for certain measures. In general, our belief is that it is preferable to resolve such issues at the time of the biennial conservation plan (BCP). This initial biennium has been unique, however, due to the development and review of the TRM and associated unit energy savings (UES) during this initial biennium. We also recognize that during this initial biennium there is a learning curve, for the companies as well as stakeholders. With respect to

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the issues regarding "baseline" conditions discussed above, we believe the RTF approach, which PSE has followed, is most appropriate and consistent with Council guidelines. Going forward, Public Counsel hopes that we have more consistency and common expectations among the utilities regarding appropriate methods and savings estimates.

#### F. DSM Prudence.

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In Docket Nos. UE-110876 and UG-110877 the Commission approved a joint motion of Avista, Commission Staff, and Public Counsel, requiring Avista to file testimony and evidence regarding the prudency of DSM expenditures in conjunction with the Company's June 1, 2012 conservation compliance filing pursuant to the EIA.<sup>69</sup> Avista has met this obligation, submitting testimony and exhibits of Mr. Folsom, Mr. Khawaja, and Ms. Hermanson. The terms of the Memorandum of Understanding approved and adopted by the Commission in Order 05 allow for any party to request adjudicatory review of Avista's DSM prudence filing, and that Avista shall not oppose such request. At this time, Public Counsel is not requesting adjudication of Avista's DSM prudence filing.

#### G. Recommendation.

In Docket UE-100176, Public Counsel recommends that the Commission require Avista to revise reported savings for the *Simple Steps, Smart Savings* TM retail CFL program using RTF assumptions for the ISR. Revised savings for this program would be 12,439,301 kwh, a decrease of 3,961,851 kwh, from the amount reported toward the biennial conservation target. With

<sup>&</sup>lt;sup>68</sup> UE-100176, Avista Response to Public Counsel Data Request No. 8.

<sup>&</sup>lt;sup>69</sup> UE-110876 & UG-110877, Order 05, Order Granting Joint Motion for Resolution of DSM Prudence, August 18, 2011

<sup>&</sup>lt;sup>70</sup> UE-100176, Avista Response to Public Counsel Data Request No. 34.

this revision, Public Counsel believes Avista would be in compliance with the Commission's conditions.

With respect to the review of Avista's DSM prudence, in Dockets UE-100176 and UG-121026, at this time we are not requesting adjudication of Avista's DSM prudence filing.

# IV. PACIFICORP (UE-100170)

### A. Biennial Conservation Target.

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PacifiCorp's overall conservation target for the 2010-2011 biennial period is 8.5 aMW or 74,460 MWH. This target was approved by the Commission, with conditions, on July 2, 2010. 71 In establishing electric energy efficiency acquisition targets, WAC 480-109-010(1) provides that a utility must derive its targets from either the utility's most recent Integrated Resource Plan (IRP) or the utility's proportionate share of the Northwest Power and Conservation Council's ("Council") current regional power plan targets for the state of Washington. PacifiCorp elected to utilize its 2008 IRP as the source for establishing its projected ten-year potential and biennial conservation target for 2010 and 2011. According to the Company, it decided to use the 2008 IRP as the source for its conservation potential and biennial target as it most accurately represented the Company's resource position, resource options, and costs. In addition, it also contained the most representative data on the Company's conservation potential in Washington which was based on the 2007 Conservation Potential Assessment conducted by Cadmus. 72

# **B.** Biennial Conservation Results.

<sup>72</sup> PacifiCorp BCR, p. 6.

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<sup>&</sup>lt;sup>71</sup> PacifiCorp Biennial Conservation Report (hereafter PacifiCorp BCR), p. 4, Docket No. UE-100170.

The Company originally reported achieving 10.6 aMW or 92,870 MWh for the 2010-2011 biennial period with a total portfolio benefit cost ratio of 3.0.73 This resulted in the Company achieving 125 percent of its biennial conservation target. On July 5, 2012, PacifiCorp filed a letter in Docket UE-100170 indicating an error was discovered which impacts the energy savings associated with the Home Energy Savings (HES) program as well as the cost-effectiveness of the total portfolio. The energy savings associated with the HES Program were overstated by 200.4 megawatt hours. After adjusting for this correction, the Company's total achievement for the biennium is 92,670 MWh and the total cost resource test equals 2.63 for the overall portfolio. The conservation results broken down by sector are as follows:

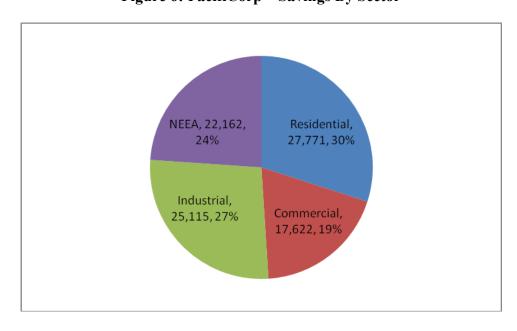


Figure 6: PacifiCorp—Savings By Sector

# **C.** Reported Expenditures.

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<sup>&</sup>lt;sup>73</sup> PacifiCorp BCR p. 4.

The Company's overall expenditures for the 2010-2011 biennial period were \$16,816,419 which exceeded the forecasted amount of \$16,156,997 by \$659,422 or 104 percent of the forecasted amount. The biennial expenditures by sector, are reflected in the table below.

Production Distribution Efficiency, Efficiency,\_ \$156,067,1% \$571,639,4% NEEA, \$1,974,452,. 12% Residential, Adminstration. \$5,472,500, \$3,924,0% Industrial, 34% \$4,678,857, 29% Commercial, \$3,169,519, 20%

Figure 7: PacifiCorp—Expenditures by Sector

# D. Compliance.

#### 1. Statute and WAC.

by the EIA that must be met by Company for both the conservation and renewable energy components of the EIA. Regarding the conservation report specifically, the Company must file, on or before June 1, 2012, and annually thereafter, a report which identifies its progress in meeting conservation targets established under RCW 19.285.40. In addition, the Company must also provide the expected and actual electricity savings results and all expenditures made to acquire conservation. The Company must also provide its Biennial Conservation Report on its website to make the information available to its customers.<sup>74</sup> Based on our review of

<sup>&</sup>lt;sup>74</sup> RCW 19.285.070 and WAC 480-109-040 (4).

PacifiCorp's biennial conservation report and supporting material we believe the Company has complied with the reporting requirements for conservation under the EIA.

# 2. Conditions Approving 2010-2011 Biennial Conservation Target.

The Commission's Order which approved PacifiCorp's 2010-2011 biennial conservation target contained certain conditions which the Company was required to meet during the 2010-2011 biennial period. The Company has stated that it has met all of its conditions under Order 02. Appendix 2 to the Biennial Conservation Report (BCR) documents the Company's compliance with these conditions. However, we note that this appendix is not an exhaustive list of all conditions approved under Order 02 making it difficult to assess whether PacifiCorp did indeed comply fully with all conditions. The comments below address issues we see with the Company's compliance with specific conditions.

### 3. Condition 7(d).

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Condition 7(d) states the following: "PacifiCorp may spend up to ten percent of its conservation budget on programs whose savings impact has not yet been measured, as long as the overall portfolio of conservation passes the Total Resource Cost Test (TRC) test. These programs may include educational, behavior change, and pilot programs." The Company states in Appendix 2 to it's BCR that it did not propose or spend any of its conservation budget during the 2010-2011 biennium period on conservation programs whose savings impact was not yet measured and reported. However, it is Public Counsel's understanding that the Company did spend conservation dollars on programs that did not have energy savings. Specifically, as of June 2011, the Energy Education in Schools program was revised to be an education-only

program (no energy savings counted under the program). In this instance, 2010-2011 Energy Education in Schools program costs would not likely push the Company's spending in this category over the 10 percent allowance and put it at risk of not meeting this condition. However, these program costs appropriately fall under this category and should be identified as such for purposes of accuracy and precedent for future reporting.

### 4. Conditions 6(b) and 6(c).

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Condition 6(b) is written as follows: "Except as provided in Paragraph 6(c) below,
PacifiCorp must use the Council's Regional Technical Forum (RTF's) "deemed" savings for
electricity measures. As of the date of this Order, the RTF maintains a website at
<a href="http://nwcouncil.org/energy/rtf">http://nwcouncil.org/energy/rtf</a>." Condition 6(c) states: "If PacifiCorp utilizes savings amounts
for prescriptive programs other than those established by the RTF, such estimates must be based
on generally accepted impact evaluation data and/or other reliable and relevant source data that
has verified savings levels, and be presented to the Advisory Group for comment."

Public Counsel contends that PacifiCorp has *not* met this condition with respect to offering its Energy Education in Schools Program during the biennium (up until June of 2011) as a savings-based program. PacifiCorp's Energy Education in Schools program distributed energy education curriculum and energy savings kits to sixth grade students in the Company's Washington service territory. The energy savings kits included a CFL and other low-cost energy efficiency measures. Based on concerns surrounding the verification of reported savings for this program, the Company ceased reporting savings under this program beginning in June of 2011, and began offering the program on an education-only basis. Subsequently, due to increased

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<sup>&</sup>lt;sup>75</sup> Order 02, Condition 7(d), Docket No. UE-100170.

challenges, including cost-effectiveness, the Company opted to cancel the program effective June 30, 2012. However, as part of its reported results for 2010-2011, the Company has included savings associated with the program up until June of 2011.

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We have previously expressed our concerns with this program. <sup>76</sup> In summary, we believe the savings of 5,058,749 kWh under this program that were accounted for during 2010 and 2011 should not be accepted as a component of the Company's achievement under the EIA. The savings under this program were not based on RTF savings estimates or generally accepted impact evaluation data and/or other reliable source data with verified savings levels. The savings under this program were based on surveys completed by 6<sup>th</sup> grade students. We do not believe that using a student survey for this program constitutes a rigorous or reliable method for determining measure savings estimates. We also observe that the savings estimates for the CFL provided in the kit are significantly higher than RTF-deemed savings. PacifiCorp claims 65 kWh<sup>77</sup> in average annual savings for the CFL included in the kit which is more than 2.5 times higher than the RTF's estimate for retail CFL bulbs (24 kWh) and is also higher than the RTF estimate for direct install of CFLs (37 kWh). Public Counsel does not believe that developing savings estimates from student surveys complies with the requirements in Condition 6(c) in Order 01 of Docket No.UE-100170 because no verification of these potential savings has occurred.

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<sup>&</sup>lt;sup>76</sup> Public Counsel Comments on PacifiCorp's Update to the 2010-2011DSM Business Plan, Docket No. UE-100170, December 23, 2010. Public Counsel comments on PacifiCorp 2011 System Benefits Charge Filing, Docket No. UE-100170, June 24, 2011.

<sup>&</sup>lt;sup>77</sup> Assessment of Washington Energy Education in Schools—2009-2010 Program Year, Cadmus, September 21, 2010, Table 3, p. 6 (Hereafter "Cadmus 2010 Assessment.")

<sup>&</sup>lt;sup>78</sup> RTF Forum Meeting Notes, May 5, 2009 available online at: <a href="http://www.nwcouncil.org/energy/rtf/meetings/2009/05/minutes20090505.pdf">http://www.nwcouncil.org/energy/rtf/meetings/2009/05/minutes20090505.pdf</a>. (RTF estimates are for customer-solicited CFL's, either retail purchase or direct install.)

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While we recognize the first biennium under the EIA should appropriately include room for a "learning curve," we believe there is a difference between accepting modifications to savings associated with impact evaluation or changes to RTF savings estimates mid-biennium, and accepting savings for a program that was never based on appropriate savings estimates from its inception. We believe the Company should have adaptively managed its program and moved to re-classify this program as education-only before June of 2011.<sup>79</sup> Including savings under this

70.

We note that adjusting PacifiCorp's biennial conservation achievement to remove these savings does not put the utility at risk of meeting its target. Nonetheless, we believe there should be as much accuracy as possible in documenting the Company's reported conservation achievement and offer this recommended adjustment on that basis.

#### E. Verification.

program is simply not appropriate in our view.

71.

As discussed in the EM&V section of these comments, unlike PSE and Avista,

PacifiCorp did not have an independent third-party verify its reported conservation savings

during the biennium. PacifiCorp's internal verification activities, described in Appendix 3 to its

Biennial Conservation Report, includes site inspections for certain programs, phone surveys for

others and review of records. While the Company's efforts at internal verification have some

value, the verification that occurs as part of PacifiCorp's ongoing program administration falls

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<sup>&</sup>lt;sup>79</sup> For example, PSE modified its schools program to be education-only as a result of the Conditions approving its Ten-year Potential and Two-year Target, as the Company . PSE's own assessment of the program revealed that the savings from this program, which targeted middle school students, were not verifiable. After consultation with the CRAG, PSE Revised its 2010 EES Annual Report to remove the savings for this program that had been reported in the Company's original filing. *See*, Public Counsel Comments, Dockets No. UE-110399 and UG-110401, p. 3, for discussion of this change.

short of the comprehensive third-party portfolio level review of PSE and Avista's programs for the biennium

Beyond the Company's internal verification activities, the only independent assessments conducted to affirm the Company's conservation achievement during the biennium are three impact evaluations that were conducted on 2010 program results for the Home Energy Savings, Refrigerator Recycling and Energy Education in Schools Programs. However, the Company did not apply the evaluated results from these impact evaluations in its reported savings for the biennium. This issue is discussed more below in the "issues for further review" section. As part of its conditions approving its 2012-2013 biennial conservation target PacifiCorp is required to have an independent, third-party verification of reported savings. We believe this will greatly improve the validity of the Company's reported savings for the 2012-2013 period.

# F. Specific Issues for Further Discussion.

#### 1. Savings Adjustments.

72.

PacifiCorp's biennial conservation report includes a section called "savings reporting adjustments" which describes the Company approach to reporting savings against its conservation target. In summary, the Company believes that to the extent practicable, there should be consistency between the use of prescriptive unit energy savings estimates in the establishment of the biennial target and the reliance on those same savings estimates in the utility's demonstration that it met the biennial target. As a result, the Company has made several large adjustments to reported savings to reflect the savings assumed in the 2007

<sup>&</sup>lt;sup>80</sup> The Company cites a non-binding, non-consensus document developed by Commission Staff as part of the Conservation Working Group efforts during the summer of 2011 as the support for its philosophy. *See* Washington Conservation Working Group Consensus Document as of June 30, 2011, Docket UE-110001.

conservation potential study. The Company includes adjustments for its refrigerator and freezer recycling program, CFL twisters and specialty bulbs, and NEEA. Depending on the measure, the Company's adjustment decreases reported savings in some cases and increases reported savings in others. In total, the savings adjustments increase reported savings for the biennium by 1,169,470 kWh.

74. The section below highlights Public Counsel's concerns with PacifiCorp's savings adjustments:

# 2. Precedent and Consistency.

*75*.

76.

PacifiCorp was the only utility to make savings adjustments designed to align reported savings with the assumptions that were in place at the time the 2010-2011 targets were set. We are not yet convinced, based on the documentation provided by the Company, that this is the best approach. This approach has the effect of creating two sets of savings numbers—one set that is based on actual reported results for the biennium and one that is adjusted to reflect assumptions at the time the target under the EIA was set. At its best, this approach causes administrative complexity and its worst is an inaccurate representation of actual achievement. Therefore, if this approach to reporting savings is accepted by the Commission for this biennium, it should not be considered precedential. Going forward, we would like to see all three utilities report conservation achievement against their targets in the same manner.

# 3. Application of Savings Adjustments.

It is noteworthy that the Company only developed savings adjustments for certain measures within certain programs. Public Counsel asked the Company why it had not reported adjustments for savings for all measures within all programs given its philosophy on alignment

of savings used to develop and report against the target. The Company responded that the Conservation Working Group document stated that the consistency philosophy should be applied "to the extent practicable." Evidently, the Company interprets this to mean that it has the discretion to determine which measures should have savings adjustments. The Company also points out that the Energy FinAnswer program does not utilize prescriptive energy savings assumptions and that the FinAnswer Express program accounts for less than ten percent of the programs overall savings. While there may be good reasons to adjust certain measures and not others, we have not received adequate documentation or support from the Company that convinces us that the selections made by the Company were appropriate.

# 4. NEEA Adjustment.

The largest savings adjustment the Company makes is to NEEA savings which serves to increase its savings in total for the biennium by 4,996 MWh. While the other savings adjustments were based on unit energy savings assumed in the 2007 potential study, this adjustment has three components for both 2010 and 2011, as discussed earlier in Section II (B) of these comments.<sup>82</sup>

The largest portion of the adjustment which increases savings for the biennium is due to adjusting NEEA results relative to NEEA's assumed baseline at the time the target was established. Updating the savings to reflect NEEA's April 2010 assumed baseline increases saving by approximately 7,721,000 kwh. Appendix 3 to the BCR is a memo from NEEA summarizing 2010-2011 final savings. NEEA states that "at Pacific Power's request, NEEA uses fixed baseline assumptions from April 2010. The baseline assumptions match the same

<sup>&</sup>lt;sup>81</sup> PacifiCorp's Response to Public Counsel Data Request 1.5.

assumptions that Pacific Power used to set its targets for NEEA savings. In order to compare the savings with the targets, NEEA holds the savings rate and naturally occurring baseline assumptions fixed." Based on the documentation provided by the Company, we are not convinced that the Company's approach to holding NEEA baseline assumptions fixed and adjusting savings to reflect these conditions is appropriate. We also note that PSE and Avista did not make similar adjustments for NEEA savings.

# 5. Unit Energy Savings from 2007 Conservation Potential Assessment.

79. In developing each of the savings adjustments included in the biennial conservation report, the Company states that it uses unit energy savings assumed in the 2007 conservation

potential study and provides the unit energy savings relied on for each measure. However, the

Company does not cite in its Biennial Conservation Report where the actual unit energy savings

relied on can be found in the 2007 conservation potential study. Public Counsel followed up with

the Company on this point and received an email indicating these numbers were included in

supplemental materials filed with 2007 conservation potential study. However, within these

documents it was still unclear to Public Counsel exactly where each unit energy savings estimate

was located. We were therefore unable to conclude that the unit energy savings relied on by the

Company in developing the adjustments were accurate.

In summary, with respect to the savings adjustments made by Pacificorp, we understand the Company's desire to be held risk-free from changes during the biennium. However, we believe that proactively managing its DSM program and making necessary changes to ensure it

<sup>&</sup>lt;sup>82</sup> Excerpt from PacifiCorp's Response to Public Counsel Data Request 1.6.

reaches its target is more appropriate than large savings adjustments at the end of the biennium which may distort actual achievement.

#### 6. Impact Evaluations.

PacifiCorp had limited evaluation of its 2010 and 2011 program results. For 2010, the Home Energy Savings (HES) Program and the Refrigerator Recycling Program were evaluated. The Energy Education in Schools program was also evaluated for the 2010-2011 school year. No evaluation was conducted on 2011 program results. These evaluations reflected gross realization rates of 96 percent for the HES program and a 53 percent realization rate for the Refrigerator Recycling Program. 83 Gross evaluated results for HES program were 9.445.906 kWh and 2,252,838 kWh for the Refrigerator Recycling Program. However, reported results for these programs in the BCR were 10,685,435 kWh and 2,961,011 kWh, respectively. This is because the Company did *not* apply the evaluated results from these impact evaluations in its reported savings for the biennium. The Company supports this decision with the following statement: "Consistent with other planning assumptions for this biennium, the Company will not incorporate evaluated planning results until the next planning period."84 If the Company had incorporated these results it would reduce reported results for the biennium by a total of 1,947,702 kWh. Going forward we believe the Company should incorporate verified results in the reported savings in its biennial conservation report.

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<sup>&</sup>lt;sup>83</sup> Pacific Power Washington 2009-2010 Residential Home Energy Savings Evaluation, January 13, 2012, and Pacific Power See Ya Later Refrigerator 2009-2010 Evaluation, January 6, 2012. Available at: <a href="http://www.pacificorp.com/es/dsm/washington.html">http://www.pacificorp.com/es/dsm/washington.html</a>.

<sup>&</sup>lt;sup>84</sup> PacifiCorp's Response to Public Counsel Data Request 2.5.

#### 7. Error in Reported Results.

82.

83.

As previously noted, PacifiCorp filed a letter on July 5, 2012, identifying an error associated with savings reported for the biennium in its biennial conservation report. 85 The Company identified this error as being linked to the Home Energy Savings program and had the effect of overstating savings by 200.4 megawatt hours or approximately 1.8 percent. The Company reports that programs remain cost-effective and that it will still achieve its target after correcting for this error. While Public Counsel concurs with these assessments, we also believe the Company excluded important information regarding the nature of the error in its letter. For example, it is not clear from the letter which measure under the Home Energy Savings Program had the error, which year the error occurred, or what the genesis of the error was. Public Counsel sought this information from the Company following the filing of its letter and learned that the error occurred within the CFL lighting program and impacts the 2011 program year only. PacifiCorp reported that the cause of the error was double-counting of savings associated with two invoices for 2010 and 2011 when the savings should have only been counted for 2010. These are important pieces of information we believe should have been included in the Company's letter. We believe it would be appropriate for the Company to file a revised version of its report correcting the savings reported and total resource cost test level.

#### G. Recommendation.

Public Counsel recommends that PacifiCorp's reported savings for the biennium be reduced by 5,058,749 kWh which reflects the removal of savings associated with the Energy Education in Schools program included in the biennial conservation results. Regarding the

<sup>&</sup>lt;sup>85</sup> PacifiCorp's 2010-2011 Biennial Conservation Report—Correction, Docket No. UE-100170, July 5, 2012.

savings adjustments issues noted above and the issue of tracking savings consistent with assumptions in place at the start of the biennium as opposed to actual, to-date assumptions, Public Counsel does not make any formal recommendation. Rather, our intent is to notify the Commission of the Company's approach to reporting its savings for the biennium and that this is different than the approach used by both PSE and Avista. Going forward we believe there needs to be consistency among the three utilities with respect to how targets are set and reported against. If the Commission would like parties to explore a consistent approach to this issue we would welcome that discussion going forward.

# V. PUGET SOUND ENERGY (UE-100177)

#### A. Target and Reported Biennial Conservation Achievement.

- PSE's overall conservation target for the 2010-2011 biennial period was 622,000 MWh.

  This target was approved by the Commission, with conditions, in an amended order on October 13, 2010. PSE used its 2009 Integrated Resource Plan as the source for establishing its projected ten-year potential and biennial conservation target for 2010 and 2011. Projected ten-year potential and biennial conservation target for 2010 and 2011.
  - PSE's reported achievement for the 2010-2011 is 644,392 MWh, which is 103.6 percent of PSE's biennial conservation target.<sup>88</sup> Of the total savings, 39 percent are attributed to the Residential sector, 54 percent to the Commercial and Industrial sector,<sup>89</sup> and 7 percent to

<sup>&</sup>lt;sup>86</sup> PSE Biennial Conservation Report (hereafter PSE BCR), p. 4, Docket No. UE-100177.

<sup>&</sup>lt;sup>87</sup> WAC 480-109-010(1) states that a utility must derive its potential from either the utility's most recent IRP or the utility's proportionate share of the Northwest Power and Conservation Council's current regional power plan targets for the state of Washington.

<sup>&</sup>lt;sup>88</sup> PSE's Third Party Verification recommends one adjustment to the reported savings. PSE has not adopted this adjustment in its claimed savings, as discussed below.

<sup>&</sup>lt;sup>89</sup> PSE reports label its commercial and industrial programs under the title "Business Energy Management."

NEEA.<sup>90</sup> With respect to cost-effectiveness, PSE reported at TRC for its electric portfolio of 2.15 in 2010 and 2.65 in 2011.<sup>91</sup>

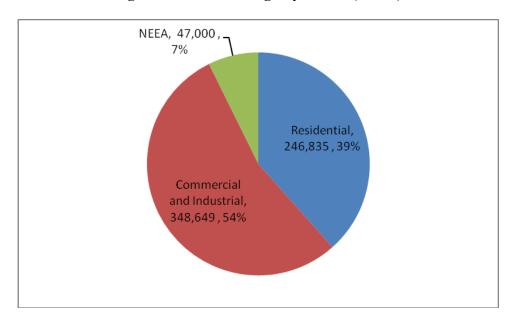


Figure 8: PSE—Savings By Sector (MWh)

### B. Reported Expenditures.

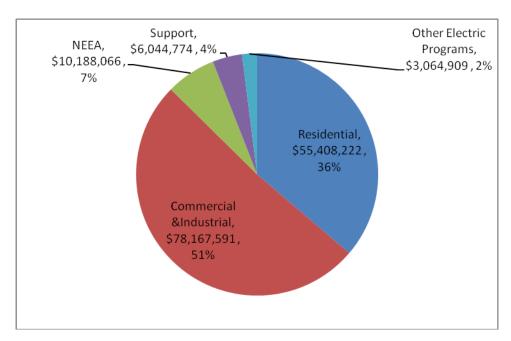
86. The Company's overall expenditures for the 2010-2011 biennial period were \$152,873,565, which was 91.4 percent of the biennial budget of \$167,298,879. The expenditures by sector, on an annual and biennial basis are reflected in the figure below:

<sup>&</sup>lt;sup>90</sup> PSE BCR, Attach 2, p. 3

<sup>91</sup> UE-970686, 2010 EES Annual Report, p. 20, and 2011 EES Annual Report, p. 23.

<sup>&</sup>lt;sup>92</sup> PSE BCR, Attachment 2, p. 3.

Figure 9: PSE—Expenditures by Sector



PSE was able to meet its target considerably under budget. Most of this lower-than-expected spending occurred in 2011.<sup>93</sup> As discussed in Public Counsel's comments in Docket No. UE-120292, this was largely due to lower than anticipated demand for rebates and services associated with the Residential Single Family Existing Program, the Commercial and Industrial Retrofit Program, and the Schedule 258 Large Power User Self-Direct program.<sup>94</sup> Additionally, PSE was able to achieve some cost savings over the biennium through its efforts to provide programs more efficiently. For example, PSE reports that the company saved approximately \$600,000 over the biennium by managing the retail lighting program in-house.<sup>95</sup>

93 See, BCR, Attachment 2, pp. 1 and 2 for separate annual reporting for 2010 and 2011.

<sup>&</sup>lt;sup>94</sup> Comments on behalf of Public Counsel, Docket Nos. UE-120292 and UG-120291, p. 2.

<sup>95</sup> PSE Response to Public Counsel Informal Data Request No 2.

# C. Compliance.

88.

#### 1. Statute and WAC.

RCW 19.285.070, and WAC 480-109-040 provide the reporting requirements established by the EIA that must be met by Company for both the conservation and renewable energy components of the law. Regarding the conservation report specifically, the Company must file, on or before June 1, 2012, and annually thereafter, a report which identifies its progress in meeting conservation targets established under RCW 19.285.40. In addition, the Company must also provide the expected and actual electricity savings results and all expenditures made to acquire conservation. The Company must also provide its Biennial Conservation Report on its website to make the information available to its customers. Based on our review of PSE's biennial conservation report and supporting material we believe the Company has complied with the reporting requirements for conservation under the EIA.

# 2. Conditions Approving PSE's 2010-2011 Conservation Target.

89. The Company's ten-year potential and biennial target were approved, subject to conditions, in Amended Order No. 5 in Docket No. UE-100177. The 2010 Settlement Stipulation and Conditions provide the framework for implementation of the conservation

<sup>&</sup>lt;sup>96</sup> RCW 19.285.070 and WAC 480-109-040 (4). PSE's BCR is available on the Company's website at <a href="http://pse.com/savingsandenergycenter/AboutReEnergize/Pages/default.aspx">http://pse.com/savingsandenergycenter/AboutReEnergize/Pages/default.aspx</a>, under the "What is Re-Energize?" heading.

<sup>&</sup>lt;sup>97</sup> Docket No. UE-100177, Order 05 (Amended). While each of the IOUs had its potential and target approved subject to conditions for the 2010-2011 biennium, the process for establishing conditions for PSE was different due to the fact that PSE had been operating both its electric and gas conservation programs under settlement agreement conditions since 2002. *See*, Docket Nos. UE-011570 and UG-011571, Settlement Terms For Conservation, Settlement Stipulation Exhibit F. (Hereafter, "2002 Conservation Stipulation.") With the implementation of the EIA, the 2002 Settlement Stipulation was updated and amended (for the electric programs only; no changes were made for gas programs) to ensure consistency with the EIA and to better address the increased size, scope, and complexity of PSE's programs since the original stipulation was developed in 2002.

requirements of the EIA, and also a means for evaluating PSE's performance at the end of the biennium.

90.

In light of this, following the Commission's approval, PSE developed a Conditions

Compliance Checklist to track the Company's progress in meeting every component of the

conditions list. Over the remainder of the biennium, PSE provided updated versions of the

checklist at each CRAG meeting. This tool proved to be immensely helpful. Stakeholders were

able to more easily monitor the Company's compliance status throughout the biennium and also

gain a sense of what the remaining commitments were, and how PSE planned to meet them.

98

91.

This checklist was included in the 2012-2013 Biennial Conservation Plan, filed with the Commission on October 28, 2011, as well as the PSE's Energy Efficiency Services (EES) 2011 Annual Report, filed February 15, 2012. 99 At the time of the 2011 Annual Report, PSE reported that there were only five conditions that remained to unmet. 100 Since that filing, PSE has completed all additional conditions that can be met at this time. 101 The final version of the Condition Compliance Checklist is included as Attachment 7 to the BCR. Public Counsel agrees with the Company's assertion that it is in compliance with all the conditions.

<sup>.</sup> 

<sup>&</sup>lt;sup>98</sup> Additionally, throughout the biennium, when PSE provided information at CRAG meetings and via email, the Company would inform stakeholders which, if any, of the conditions were met by the action or item.
<sup>99</sup> 2011 EES Annual Report, Exhibit 9.

<sup>&</sup>lt;sup>100</sup> 2011 EES Annual Report, p. 31. These included the following conditions: I(18)—Report Card; K(6)(g)—Third Party Review; K(8)(d)—Schedule120 filing; K(8)(g)—Annual Report; and K(8)(h)—Biennial Conservation Report. <sup>101</sup> Two conditions, Condition I(17), regarding penalties, and I(18)(c), regarding report on conservation achievement, depend on the final commission ruling on the Company's reported results in the BCR.

#### D. Verification.

92. Attachment 3 to PSE's BCR is SBW's Independent Third-Party Review of PSE's 2010-2011 Electric Conservation Energy Savings. The Third Party Review was the result of Condition (K)(6)(g), which required the following: 102

A one-time only, independent third-party evaluation of portfolio-level electric energy savings reported by PSE for the 2010–2011 biennial period, from existing conservation programs operated during that period, shall be conducted to verify those savings. The independent third-party evaluator shall be selected through an RFP process. The review will be funded by the PSE Electric Conservation Service Rider. The review will be managed by UTC and PSE staff with input on the scope, cost, RFP development, evaluator selection and ongoing oversight by the CRAG. The scope shall:

- i. focus on portfolio level EM&V of the existing 2010-2011 PSE conservation portfolio regarding impact, process, market, and cost-effectiveness analysis,
- ii. examine selected existing 2010-2011 programs or measures in more depth than others, as called for in the RFP, and
- iii. provide for some additional but limited detailed independent EM&V study at the program or measure level to be selected by the independent third-party evaluator from the Company's existing 2010-2011 programs.
- 93. The primary purpose of the third party review was to assess the extent to which the electric energy savings that PSE reported for the 2010-2011 biennium were achieved.

  Specifically, the study had three objectives: 103
  - 1. Portfolio Savings Review, to determine the veracity of total portfolio electric energy savings, reported by PSE, relative to the targets and baselines established at the time of the program approval by the Commission. This includes verifying that both RTF deemed and non-RTF derived measure savings are being applied consistent with the Settlement.
  - 2. EM&V Practices Review, to assess whether EM&V practices are consistent with both the Settlement and generally accepted industry practices, particularly concerning tracking

<sup>&</sup>lt;sup>102</sup> Docket No. UE-100177, 2010 Conservation Settlement Stipulation and Conditions, Condition (K)(6)(g).

<sup>&</sup>lt;sup>103</sup> Third Party Review, p. ES-1. The second and third objectives of this review were unique to PSE. Avista's Third Party Verification did not have similar components.

- and reporting processes, installation verification practices, and evaluation planning, implementation, and follow-up; and
- 3. Cost-effectiveness Calculation Review, to audit cost-effectiveness results, including review of methodology, inputs, and calculation, to determine if it is consistent with the settlement.

The methodology for the Portfolio Savings Review included a high-level portfolio review, a project-level review, targeted on-site verification, and program review of the Resource Conservation Manager and Single-Family New Construction Programs. Public Counsel's discussion in these comments will focus on the results of the on-site verifications and program reviews.

Through the on-site verifications, which supplemented the file review, SBW contacted a subset of 221 projects to verify them through observations and customer interviews. SBW focused on 13 of 24 programs that were not covered by recent or current evaluations, and where on-site inspections were likely to yield meaningful information. Through the on-site verifications, the Third Party Review found that, "with minimal exceptions, the projects the review team inspected were installed and operational, consistent with the project documentation....We encountered no evidence of projects ineligible for PSE incentives or assistance." However, SBW also stated that "This small sample is not statistically significant in any traditional sense, but does help round out the comprehensive portfolio assessment, particularly taken in conjunction with other verification activities, including the detailed review of verification practices discussed in Section 3.2 [PSE measure installation verification]." 106

94.

<sup>&</sup>lt;sup>104</sup> Third Party Review, p. 27.

<sup>105</sup> Third Party Review, p. 33.

<sup>&</sup>lt;sup>106</sup> Third Party Review, p. 27.

96.

Because of the size and complexity of PSE's portfolio, there were limitations associated with how many on-site verifications could be completed within the budget for the review. After a review of the interim results of the Third Party Review, and the limited scope of the remaining study, Public Counsel expressed concern that, the results of the Third Party Review might raise more questions than it would answer, if the review did not conduct enough on-site verifications to produce actionable results. In the end, there were a few places where SBW found possible problems, but had limited information with which to make a recommended adjustment.

97.

As indicated in Public Counsel comments provided in response to the April draft of the Third Party Review, <sup>107</sup> we believe the scope of this review, as developed in through the request for proposals (RFP) and initial scoping, made it difficult to interpret and apply some of the results. In response to Public Counsel's concerns about the scope of the Third Party Review, as provided in response to the draft report, SBW stated,

The review team consisted of two well-respected firms with strong reputations in the EM&V field....[W]e understand deeply the tools available for, and the challenge of, assessing a complex efficiency portfolio. That said, our professional opinion is that the scope of the 2010-2011 portfolio review, as envisioned in the RFP and carried out over the past year, worked well. The effort was effective at assessing the veracity of the portfolio savings within the resources allotted....The review team found a few areas of concern, and was able to highlight these and make recommendations for addressing them. Nonetheless, as the example of the proposed RCM adjustment showed, this scope of work becomes more problematic when it is called upon to deliver justification for defensible quantified adjustments to the program claims. <sup>108</sup>

98.

The scope of the Third Party Review focused on identifying systemic problems, and while SBW found very few instances that it believed warranted considerable concern, when there was an issue, as is the case with the RCM program, the review was not detailed enough to

develop an easily quantified adjustment to savings. <sup>109</sup> Contrasted with the third party review that has been conducted for Avista, which applied realization rates based on the verified results, PSE's has a much different impact. Public Counsel believes that the SBW review added value, and we appreciate that the reviewer was able to flag a number of areas that warrant further investigation from PSE, or, as in the case of the RCM program, conduct a full impact evaluation. This review was certainly preferential to not having any type of Third Party Review of the portfolio.

As with much of what occurred in the 2010-2011 biennium, the experience with PSE's Third Party Review offered useful lessons for improvement in subsequent periods. SBW stated, "[t]he review team concurs with the suggestion that the CRAG, in conjunction with others, develops clear objectives and expectation for subsequent review rounds." PSE has already made strides to this effect. At the June 21, 2012 CRAG meeting, the CRAG agreed that PSE and interested stakeholders would seek the assistance of an independent EM&V expert to help develop the scope for the RFP for the 2012-2013 Third Party Review.

### **E.** Specific Issues for Further Discussion.

99.

Much of what is included and/or referenced in PSE's BCR was provided to the CRAG prior to the June 1, 2012 filing deadline, and many of these results were vetted throughout the biennium, as demonstrated in the Condition Compliance checklist, discussed above.

110 Third Party Review, Appendix B, p. B-4.

<sup>&</sup>lt;sup>107</sup> These comments are included with the BCR, Attachment 3, Third Party Review, Appendix B, p. B-3.

<sup>&</sup>lt;sup>108</sup> Third Party Review, Appendix B, p. B-4. Emphasis added.

<sup>&</sup>lt;sup>109</sup> This was also seen with regard to results of the on-site verification for the Single Family Existing Weatherization Program as well as the C/I Lighting (Small Business Lighting) Programs, where SBW reported that it found errors in a sizable portion of the on-site visits, but did not make any adjustments because it was determined that the overall impact of the error would be insignificant. Third Party Review, pp. 35-36. PSE later followed up on at number of these sites, and made adjustments to the reported savings for those sites where necessary.

Specifically, PSE provided annual results that were filed in Docket No. UE-970686, and reviewed as a part of the Company's Schedule 120 Tariff Rider filings in Docket Nos. UE-110399 and UE-120292. Additionally, the CRAG received a draft of the Third Party Review on April 11, 2012, as well as the final version of the C&I Energy Efficiency Retrofit Custom Programs Evaluation prior their inclusion in the BCR. The review of the biennial conservation achievement for a portfolio the size of PSE's was more manageable because much of the information was provided to the CRAG prior to the June 1 BCR filing deadline. We appreciate PSE's efforts to provide stakeholders with information throughout the biennium. Due to the Company's diligence, there are few remaining issues that warrant further discussion.

# 1. Resource Conservation Manager Program.

101. The SBW Third Party verification suggested only one adjustment to PSE's reported savings, related to the results of the Resource Conservation Manager (RCM) program. The RCM program, as described in the 2011 EES annual report, is offered to

[A]ny school district, public-sector government agency, and Commercial or Industrial (C/I) customer with a minimum portfolio baseload to meet cost-effective thresholds. The RCM program targets larger customers with multiple facilities such that the cost of implementation can be recovered through savings achieved."<sup>112</sup>

The magnitude of the program in PSE's portfolio is highlighted in the Third Party Review, which states,

<sup>&</sup>lt;sup>111</sup> The draft Third Party Review was provided on April 11, 2012, and SBW held a webinar with interested stakeholders on April 24, 2012. PSE provided the Navigant Commercial and Industrial Retrofit Evaluation via email on March 29, 2012. Additionally, SBW also provided an interim report in December 2011. BCR, Attachment 3, p. ES-1.

<sup>&</sup>lt;sup>112</sup> 2011 EES Annual report, p. 134.

The RCM program accounts for seven percent of the electric portfolio claimed savings for the 2010-2011 biennium, making it the fourth largest [program] in terms of electric savings out of the 16 electric [programs] with claimed savings. Some RCM projects claim as much as two to three million kWh of savings for a given year. 113

The Third Party Review found that while there have been a number of improvements and refinements to the RCM program over the past several years and that it appears to be a valuable and innovative program, there are a number of challenges associated with its breadth and complexity. SBW highlighted the four particular aspects of its concerns, which are briefly summarized below: 115

# a. The variable quality of documentation of final claimed savings.

104. Problems in this category included that in 20 percent of the sample, SBW was unable to determine the source of the final savings estimates. Additionally, the review team was struck by the difference in analytical and documentation rigor between a 600,000 KWh/year project to install, for example, an efficient air compressor in an existing industrial facility, and 600,000 KWh in RCM savings, which is the average amount of savings for an RCM project in SBW's sample. While documenting RCM savings is inherently more challenging, SBW found that based on its discussion with program staff, PSE could improve these practices. 117

# b. Billing analysis approach may overstate savings attributable to the program.

105. SBW found that the RCM's current analytical framework rests on the assumption that all reductions to facility electric usage—aside from weather, changes in utilized floor area, or PSE-

<sup>&</sup>lt;sup>113</sup> Third Party Review, p. 37.

<sup>114</sup> Third Party Review, p. 45.

<sup>115</sup> Third Party Review, pp. 45-50.

<sup>&</sup>lt;sup>116</sup> Third Party Review, p. 46.

incentivized capital projects—result from RCM actions, and thus should be credited to the program. SBW surmised that it is a stretch to say that all the savings result from RCM actions, and that the current scheme for estimating RCM savings includes natural decreases in usage that would occur in the absence of the RCM, while excluding other potential sources of RCM-induced savings.

c. Inconsistent approach to including customer facilities in savings analyses skews overall savings upwards.

106. PSE's current practice is to claim savings at a facility if the net savings are positive, and if there is some evidence that RCM actions took place there. If the savings are negative, then in most cases, those facilities are excluded from the analysis, which SBW argues, biases the overall savings upwards. 118

d. The program's discounting of savings from PSE incented measure, new construction influence, and other RCM related avoided costs understates program impacts.

In addition to a number the areas where SBW believes PSE may be overstating the RCM results, SBW found that there savings that might be attributable to the RCM program that are not included in the program's reported savings. SBW did not have a means by which to quantify these savings, but if PSE is indeed overstating its savings in other areas, some of those overstated savings may be somewhat offset by savings that are tied to the RCM, but not attributed to the program.

<sup>&</sup>lt;sup>117</sup> Third Party Review, p. 46.

<sup>&</sup>lt;sup>118</sup> Third Party Review, p. 48.

### Discussion of SBW's recommendation.

SBW's analysis suggests that switching from the current savings analysis framework that zeroes out facilities with negative savings, to a balanced approach that sums up net savings without exceptions, might reduce overall programs savings by up to 35 percent. This reduction would not incorporate or account for inconsistent application of existing protocols, such as those for weather adjustments.<sup>119</sup>

log. Based on SBW's conclusions, Public Counsel is concerned about the veracity of PSE's claimed savings for the RCM. While we recognize that the Third Party Review was not designed to conduct a full impact evaluation of this program, the review was explicitly employed to defend the veracity of PSE's claimed savings. We believe the stated concerns with the RCM savings are too big and too numerous to ignore. Considering that SBW found that there may be savings achieved by the RCM that are not accounted for under the current practice, and that the 35 percent reduction estimate is not the product of a comprehensive, rigorous impact evaluation, we believe the proposal to reduce RCM savings by 17.5 percent is a reasonable middle ground. Public Counsel understands that the recommended adjustment to claimed savings is not precise, and, undoubtedly, it would be preferable to have the results of a full impact evaluation for the RCM program, however, we believe it is a reasonable to adopt SBW's suggested approach, particularly because SBW's recommendation only incorporates half of what it estimates might be a reasonable reduction. Even if SBW's adjusted savings recommendation is adopted, the Company will still exceed its biennial target by 14,547 MWh, or 2.3 percent.

<sup>&</sup>lt;sup>119</sup> Third Party Review, p. 50.

<sup>120</sup> SBW reduced its recommended adjustment by half after discussion with the CRAG in late April, 2012.

Table 3: Revised Biennial Savings ResultsPSE	
PSE Reported Biennial Achievement	642,485
SBW RCM adjustment	7,938
Revised Biennial Achievement	636,547
Difference between Target and Revised Achievement	14,547
Percent Exceeded Target	2.3%

110. SBW's recommended adjustment is based on the best available information available at this time, and complies with the intent of the Condition (K)(6)(g), which was established to verify and determine the veracity of the claimed savings. On that basis, Public Counsel believes it is appropriate in this instance to accept the SBW's recommendation to reduce PSE's reported savings by 7,938 MWh to reflect the uncertainty associated with savings from the RCM program.

#### 2. Holiday Outreach Program.

111. The Holiday Outreach Program, which, as highlighted in the 2011 Annual Report, took place in November and December 2011, and distributed approximately 80,000 CFLs and 40,000 showerheads. The initial draft of the Third Party Review indicated that 2,787 MWh of savings were attributable to the showerheads from this program. Public Counsel raised concerns because the showerhead program uses RTF savings estimates for distribution methods that

<sup>&</sup>lt;sup>121</sup> 2011 EES Annual Report, pp. 91-92. Some of the energy savings for showerheads were attributed to natural gas customers.

<sup>&</sup>lt;sup>122</sup> There were additional savings attributed to CFL giveaways as well. PSE utilized the RTF's retail UES for this measure. While we are concerned about this estimate as well, PSE has recently conducted evaluations about its Rock the Bulb campaign, and claims savings above the RTF retail level. Because of that similar experience, we are less

differs from any of the methods contemplated by the RTF. In response to questions issued in review of the 2011 EES Annual Report, the Company indicated that it used RTF savings estimates for this program, and "PSE chose the 'retail' savings classification as this description closely aligned with the holiday outreach customer experience; traveling to a location, participate in the process by taking the pledge and then receiving a showerhead."<sup>123</sup> In response to Public Counsel's concerns, SBW added the following language to the Third Party Review: 124

Based on the evidence obtained, the review team concluded that the [holiday outreach program showerhead related savings] are a valid savings claim, though the fact that these showerheads were distributed late in the biennium precluded opportunity for more detailed review. Questions remain about the proper value for the unit energy savings, since the distribution method for the holiday outreach program differed from any of the methods...considered by the RTF, and so it is possible that the savings estimate used for the holiday outreach may not accurately capture the results for this particular distribution.

While Public Counsel agrees it is likely there are energy savings from this measure, we are concerned that the claimed savings from this program may be overstated. If the company decides to pursue this distribution method again in the future, we believe it would be appropriate to conduct further research and evaluation on savings associated with this distribution method.

#### F. Recommendation.

112. Public Counsel recommends that PSEs reported savings for the biennium be reduced by 7,938 MWh, which reflects the removal of savings associated with the recommended RCM adjustment made by SBW.

concerned about the claimed savings from the CFLs than we are for the claimed savings associated with the showerheads, which are more difficult to install than a light bulb.

<sup>&</sup>lt;sup>123</sup> PSE Responses to Public Counsel's questions relative to the 2011 Residential Holiday Outreach initiative, provided April 24, 2012. 124 Third Party Review, p. 14.

#### VI. CONCLUSION

113. For the reasons stated herein, Public Counsel recommends that each utility submit revised reported results of conservation performance. With those revisions, each of the three companies would still meet their biennial conservation target, and would be in compliance with Commission conditions approving those targets. Public Counsel looks forward to reviewing the comments filed by Commission Staff and other stakeholders, and we reserve the right to modify our recommendations based our review of those comments. We will have representatives attending the Commission's July 27, 2012, Open Meeting.