#### BEFORE THE WASHINGTON STATE UTILITIES AND TRANSPORTATION COMMISSION

PACIFIC POWER AND LIGHT COMPANY'S REPORT IDENTIFYING ITS TEN-YEAR ACHIEVABLE CONSERVATION POTENTIAL AND 2016-2017 (BIENNIAL) CONSERVATION TARGET PURSUANT TO RCW 19.285.040 AND WAC 480-109-120 DOCKET UE-152072

#### COMMENTS OF PUBLIC COUNSEL

#### **December 3, 2015**

#### I. INTRODUCTION

- 1. Pursuant to the Commission's November 12, 2015, Notice of Opportunity to Comment (Notice), the Public Counsel Section of the Washington State Attorney General's Office (Public Counsel) respectfully submits these comments in advance of the Commission's December 17, 2015, Open Meeting. These comments address Pacific Power and Light Company's (PacifiCorp or "the Company") biennial conservation plan (BCP) concerning its ten-year conservation acquisition potential and its 2016-2017 biennial conservation target filed with the Commission on October 30, 2015, in compliance with RCW 19.285.040 and WAC 480-109-010.
- 2. The 2016-2017 BCP is the fourth plan of its kind filed by the electric investor-owned utilities (IOUs) since the Energy Independence Act was established. The experience gained by the Company and stakeholders through past filings has resulted in a more streamlined review process and fewer issues that need to be resolved. In our review, Public Counsel has not found any areas of significant concern. Therefore, these comments will provide a brief discussion of

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ATTORNEY GENERAL OF WASHINGTON Public Counsel 800 5<sup>th</sup> Ave., Suite 2000 Seattle, WA 98104-3188 (206) 464-7744 the proposed ten-year conservation potential and target as well as key adjustments to the target identified by the Company to account for recent developments affecting conservation opportunities.

#### II. TEN-YEAR CONSERVATION POTENTIAL AND BIENNIAL TARGET

## A. Basis for PacifiCorp's Ten-Year Potential and Biennial Target.

- PacifiCorp has identified a ten-year conservation potential of 457,530 MWh and a biennial conservation target of 87,814 MWh. The ten-year conservation potential was developed using the Company's 2015 Integrated Resource Plan (IRP) and the 2015 Conservation Potential Assessment (CPA) adjusted to account for recent refinements to conservation opportunities. A number of other studies were relied on to explore additional conservation potential associated with the following: waste heat to power and regenerative technologies, production efficiency, distribution efficiency, and distributed generation including highefficiency cogeneration. No cost-effective, reliable, and feasible potential was identified in PacifiCorp's ten-year conservation potential for production efficiency, distribution efficiency, or high-efficiency cogeneration. The Company did identify 7,537 MWh in savings associated with waste heat to power.
- 4. The 2016-2017 biennial conservation target was developed using the pro-rata share of the ten-year potential adjusted to remove market transformation savings associated with the Northwest Energy Efficiency Alliance (NEEA). NEEA savings are not factored into the Company's biennial conservation target, as discussed in more detail later in these comments.<sup>3</sup>

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<sup>&</sup>lt;sup>1</sup> Biennial Conservation Plan, at 5 and 6, Docket UE-152072, filed October 30, 2015. (Hereafter, "BCP.")

<sup>&</sup>lt;sup>2</sup> BCP, at 8.

<sup>&</sup>lt;sup>3</sup> BCP, at 24.

5. PacifiCorp's 2016-2017 target will be met exclusively by end-use energy efficiency and behavioral programs. Approximately 42 percent of the savings will be met through residential programs and 58 percent through business sector programs.<sup>4</sup>

## **B.** Adjustments to the Ten-Year Conservation Potential.

As described above, the ten-year conservation is derived from the 2015 IRP and CPA analyses. These analyses contain the most accurate assessment of conservation potential available in PacifiCorp's Washington service territory at the time they were conducted. During the biennial conservation planning process, PacifiCorp further refined the conservation potential identified in the IRP and CPA analyses to account for updates and changes in potential occurring after these analyses were complete. These updates are identified as "adjustments" to the conservation potential and the Company has grouped them into the following three categories:

(1) Updates to CPA measures and/or costs; (2) Energy efficiency opportunities not assessed in the CPA; and (3) Conservation opportunities assessed through other studies.<sup>5</sup> In total,

PacifiCorp's adjustments increase the ten-year conservation potential by 34,430 MWh.<sup>6</sup>

PacifiCorp's approach to refining its savings potential through adjustments mirrors the approach taken by the Company in past BCPs. Public Counsel appreciates the Company's efforts to develop the most refined potential possible and supports this approach as it has in past BCP filings. While questions arose during the biennial conservation planning process around certain adjustments, these were ultimately resolved within the advisory group.

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<sup>&</sup>lt;sup>4</sup> BCP, at 27.

<sup>&</sup>lt;sup>5</sup> BCP, at 18-19.

<sup>&</sup>lt;sup>6</sup> BCP. Table 5, at 19.

# 1. Updates to CPA Measure Savings.

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Table 5 in the BCP provides a summary of all adjustments to the 2015 IRP potential identified by the Company. The majority of these adjustments fall under the category "Updates to CPA Measure Savings" and include adjustments for RTF updates to unit energy savings, measure additions and cancellations, and updates to account for changes in regional assumptions and stakeholder guidance. In addition, the Company also made adjustments to account for modeling inconsistencies it discovered in the CPA which resulted in some measures falsely being identified as not cost-effective and incorrectly excluded from the conservation potential. Measures impacted by the CPA modeling errors include clothes washers, residential ductless heat pumps, and smart plug power strips. After the Company identified and corrected the modeling errors these measures were cost-effective so an upward adjustment was made to include the additional savings associated with these measures in the conservation forecast.

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It was unclear to Public Counsel from the information provided in the BCP what process the Company used to ensure all CPA modeling errors were identified and corrected. In response to a data request from Public Counsel, the Company provided additional detail and confirmed that other measures with large potential were reviewed for these modeling errors and no additional errors were identified. Public Counsel is satisfied with the Company's response to this issue, however we would like to better understand why these errors occurred and what steps will be taken in the next CPA to avoid such issues. We anticipate discussing this issue further with the Company and other stakeholders through the advisory group process.

<sup>&</sup>lt;sup>7</sup> PacifiCorp's Response to Public Counsel Data Request No. 3.

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In order to align its program offerings with the revisions and adjustments to its conservation potential, the Company also recently proposed changes to its Home Energy Savings program (PacifiCorp's primary residential end-use efficiency program), the Refrigerator Recycling Program, the Low Income Weatherization Program, and the Wattsmart Business Program. These program changes were discussed with the advisory group and will go into effect January 1, 2016. Public Counsel applauds the efforts by the Company to align program offerings to its revised conservation potential and appreciates the Company discussing the program changes in advance of the BCP filing with the advisory group.

### 2. Home Energy Report Program.

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PacifiCorp's Home Energy Report Program launched in August of 2012 and was scheduled to continue through December 2015. Following an evaluation of the program, it was extended to run through December 2017. The original treatment group is referred to as the Legacy Group and initially included 13,500 customers. Due to program attrition, there are currently 11,500 customers in the Legacy Group. In order to address this attrition, the vendor is adding households from the general population to maintain the size of the treatment group. This is referred to as the "refill" group. The program was also expanded at the time it was extended to include a second treatment group of 35,000 households. This treatment group is referred to as the Expansion Group. 8

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For this biennial period, the Company used a two-year measure life for assessing program cost-effectiveness whereas in the prior biennial period the Company used a one-year measure life. This change was the result of stakeholder interest in aligning residential planning and

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reporting conventions across utilities. Following discussions this summer, stakeholders agreed to a two-year measure life for behavioral savings with the full impact counted in odd years and incremental impacts counted in even years. PacifiCorp's 2015 CPA included behavioral savings but assumed a one-year measure life. As a result, the Company proposed an adjustment to subtract the IRP selections for residential behavior and add back in savings for the legacy and expansion programs using a two-year measure life reporting convention. The adjusted potential for the Home Energy Report program is 9,773 MWh for the 2016-2017 biennium.

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A separate issue that arose related to the Company's Home Energy Reports program was whether savings associated with the Expansion Group should be included in the biennial conservation target. In the time leading up to the BCP filing, PacifiCorp notified the advisory that the savings associated with the Expansion Group were not on track to achieve the expected results and, under current assumptions, the program was not forecast to be cost-effective on a stand alone basis. This is because savings as a percentage of household usage are lower for the Expansion Group (as compared to the Legacy Group), which may be because the expansion targets lower-usage customers than the Legacy Group. Ultimately, the Expansion Group was forecast to be cost-effective, but only after the contract was discounted by the vendor which reduced overall program costs, thereby improving cost-effectiveness. As a result, PacifiCorp has included the savings associated with the Expansion Group its 2016-2017 biennial conservation target. <sup>10</sup>

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<sup>&</sup>lt;sup>8</sup> BCP, Appendix 2, PacifiCorp's 2016-2017 DSM Business Plan, at 18-19.

<sup>&</sup>lt;sup>9</sup> BCP, Appendix 4, at A4-3.

<sup>&</sup>lt;sup>10</sup> Total forecast savings from the expansion program for the biennium are 4,456 MWh. *See:* BCP, Appendix 4, at A4-3.

Public Counsel tentatively supports the continuation of the Expansion Group and including the savings in the program in the 2016-2017 target, given that it remains cost-effective. However, we believe it is important to continue to study how the savings are being achieved for the legacy, refill, and expansion groups. This will allow all parties to better understand which customer segments are delivering the most and least savings. Specifically, we recommend that the third-party evaluation of the program include analysis by usage cohort. Our understanding is that this analysis will be included in future evaluations.

# 3. Energy Efficiency Opportunities not Identified in the CPA: Waste Heat to Power and Regenerative Technologies.

PacifiCorp's ten-year potential includes an adjustment that adds 7,537 MWh in savings to account for Waste Heat to Power (WHP) that was not included in the 2015 CPA. WHP involves situations where surplus heat available on-site can be used to generate electricity that will offset an equivalent electrical load. 12

The 2013 IRP Action Plan included a Company commitment to perform an evaluation of waste heat to power where generation is used to offset customer requirements. This evaluation was performed by CLEAResult and was completed in mid-2014. The evaluation explored the potential of WHP as well as Regenerative Technologies (RT). RT involves regenerative equipment that generates power by recovering braking energy. Elevators and conveyors are often applicable end-use Regenerative Technologies.<sup>13</sup> The evaluation identified cost-effective

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<sup>&</sup>lt;sup>11</sup> BCP, Appendix 4, at A4-7.

<sup>&</sup>lt;sup>12</sup> BCP, Appendix 6, at 10.

potential in Washington for ORC and Steam System Optimization.<sup>14</sup> The report recommended that WHP projects up to one MW be treated as DSM projects and be processed by means of PacifiCorp's existing custom DSM programs.<sup>15</sup> To align its energy efficiency program offerings with the potential identified, the Company recently revised its Wattsmart business program to include WHP, which is treated as a non-lighting energy efficiency measure and eligible for custom non-lighting incentives.

# 4. Conservation Opportunities Assessed Through Other Studies: Distribution Efficiency, Production Efficiency, and High-Efficiency Co-generation.

The Company proposes no adjustments to the ten-year conservation forecast or biennial target related to conservation opportunities assessed through other studies. The Company studied the potential for distribution efficiency, production efficiency, and high-efficiency co-generation, however, no potential was identified associated with any of these resources. The Company has provided substantial detail in its BCP describing these studies and their results, and also attached the studies themselves as appendices, thus Public Counsel will not repeat the discussion in these comments. PacifiCorp has kept the advisory group updated throughout the course of these studies and all parties have had an opportunity to engage in robust discussions and question and answers with the Company. At this time, Public Counsel has no concerns with the Company's studies or their results.

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<sup>&</sup>lt;sup>14</sup> BCP, Appendix 4, at A-4-7. The CLEAResult report identified potential associated with elevator regeneration, however the levelized costs were higher than Class 2 DSM resources selected by the 2015 IRP and therefore were not included in the Company's conservation forecast.

<sup>&</sup>lt;sup>15</sup> BCP, Appendix 6, at 9.

## 5. NEEA Savings.

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Following the 2010-2011 biennium, the Commission ordered the electric IOUs to collaborate and develop a consistent approach to claiming NEEA savings in the 2014-2015 biennium. <sup>16</sup> The utilities proposed that NEEA savings no longer be included in the biennial target or be reported at the end of biennium. In preparation for the 2016-2017 biennium, the electric utilities met with stakeholders to discuss the NEEA methodology and whether any changes were necessary. Ultimately, it was agreed that the methodology worked well and should be used again for 2016-2017. Hence, PacifiCorp's biennial target includes an adjustment to remove savings associated with NEEA market transformation initiatives.

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In the last biennium, challenges arose in removing NEEA savings due to the fact that 2014-2015 savings forecasts from NEEA used a different baseline and technical assumptions than those of the utilities. As a result, in the last biennium PacifiCorp made an adjustment to NEEA's forecast to better align with the Company's CPA. In this biennium, PacifiCorp explained to its advisory group that it did not believe it was necessary to make any adjustments to NEEA savings to account for changes between those savings identified in its CPA and NEEA's savings forecast. This is because NEEA's savings forecast was based on the 7<sup>th</sup> power plan baseline, which was well aligned with savings identified in the CPA. The vendor that performed PacifiCorp's CPA, Applied Energy Group (AEG), provided additional information to support this approach following questions and discussions with the advisory group. To further investigate whether an adjustment was appropriate for PacifiCorp, AEG reviewed the baseline assumptions for two of the largest savings measures, screw-in lamps, and linear fluorescent

lamps. They found that the key assumptions were in-line between PacifiCorp, NEEA, and the draft 7<sup>th</sup> power plan.<sup>17</sup> We understand that Puget Sound Energy (PSE) and Avista<sup>18</sup> are taking a similar approach to removing NEEA savings and believe this approach is reasonable.

# C. Frozen Baseline for Unit Energy Savings.

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PacifiCorp currently maintains a "frozen baseline" approach for reporting unit energy savings during the biennium. The frozen baseline means that for reporting purposes, the Company maintains the same unit energy savings used to set its target with those used to report against the target, even if the unit energy savings for a given measure change during the biennium. Based on recommendations made by Public Counsel and other stakeholders during the 2014-2015 biennial target setting process, the Company is currently tracking changes in unit energy savings that occur within the 2014-2015 biennium and will provide an estimate of the impacts as part of the 2014-2015 reporting process. This information will provide stakeholders with a better understanding of the magnitude of changes in savings that occur during the biennium and whether it is appropriate to maintain the frozen baseline approach or another approach, such as updating unit energy savings annually.

Given that the impacts of the changes in unit energy savings for the 2014-2015 biennium were not known before the 2016-2017 target setting process, the Company proposes to continue to use the "frozen baseline" methodology for the 2016-2017 biennium.<sup>19</sup> Public Counsel's preference is for a utility to make annual adjustments to unit energy savings and report against

<sup>&</sup>lt;sup>16</sup> BCP, at 25.

<sup>&</sup>lt;sup>17</sup> AEG Memo to Don Jones, November 18, 2015, at 2. This memo is included as Attachment A to these comments.

<sup>&</sup>lt;sup>18</sup> Public Counsel's understanding is that Avista will file a revised BCP to match its approach to removing NEEA savings with the approach used by PacifiCorp and PSE described in these comments.

those updated savings estimates. This approach encourages adaptive management and makes common sense. It is noteworthy that both Avista and PSE propose to make annual unit energy savings updates and will report against the updated values for the 2016-2017 biennium.<sup>20</sup> Notwithstanding, Public Counsel supports the Company's decision to maintain its frozen baseline approach given that results of the 2014-2015 biennium are not yet known and it is reasonable to assess the impacts of the 2014-2015 biennium before making any changes. We reserve the right to advocate for a different approach in the future pending the results of the 2014-2015 biennium analysis discussed above.

#### III. RECOMMENDED CONDITIONS

22. Public Counsel anticipates that discussions among the Company and stakeholders to address conditions for the approval of PacifiCorp's BCP will commence before the December 17, 2015, Open Meeting. We anticipate providing our recommendation regarding these conditions at the time of the Open Meeting.

### IV. CONCLUSION

23. Public Counsel appreciates the opportunity to comment on PacifiCorp's proposed 2016-2017 Biennial Conservation Plan. Public Counsel has no outstanding issues with the filing and supports the Company's proposed Ten-Year Conservation Potential and Biennial Target, subject to reaching agreement among the Company and other stakeholders on conditions for the approval of the BCP. Public Counsel will attend the December 17, 2015, Open Meeting and be present for questions.

<sup>&</sup>lt;sup>19</sup> BCP, at 11.

<sup>&</sup>lt;sup>20</sup> See: Avista BCP, p. 9 and PSE BCP, p. 39.