



Rob McKenna

## ATTORNEY GENERAL OF WASHINGTON

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July 6, 2012

### **SENT VIA E-MAIL & ABC LMI**

David Danner  
Executive Director and Secretary  
Washington Utilities and Transportation Commission  
1300 S. Evergreen Pk. Dr. S.W.  
PO Box 47250  
Olympia, WA 98504-7250

**Re: PacifiCorp's Demand-Side Management Business Plan Revision  
Docket No. UE-111880**

Dear Mr. Danner:

Public Counsel submits this letter in advance of the Commission's July 12, 2012, Open Meeting. These comments address the Company's proposed Home Energy Report program, included in PacifiCorp's revised 2012-2013 Demand-Side Management Business Plan ("Business Plan") filed June 4, 2012, as a compliance filing pursuant to Order 01 in Docket UE-111880.

### **Public Counsel Recommendation**

Regarding the proposed addition of the Home Energy Report program filed in Docket UE-111880, Public Counsel recommends that PacifiCorp should be required to file a revised Home Energy Report program plan that includes the following regarding program design and evaluation: (1) The target population of the pilot; (2) confirmation that an independent third-party evaluator will conduct the random assignment of households to treatment and control groups, as well as other tasks; (3) confirmation that the evaluation plan will include a methodology to determine double-counted savings for upstream programs such as CFL's; and; (4) confirmation that the evaluation plan will include an equivalency check methodology to test for balance between certain customer characteristics used for tip-targeting in home energy reports. These recommendations are discussed in more detail below.

#### **A. Home Energy Report Program.**

PacifiCorp is proposing to include a pilot Home Energy Report program in its 2012-2013 Biennial Conservation Plan. According to information provided by the Company, PacifiCorp's proposed Home Energy Report program is a residential behavior-based energy efficiency program that seeks to provide comparative energy usage data for similar homes located in the same geographical area, as well as information on how to modify energy usage. The goal of the program is to encourage behavior modification and/or investment in efficiency measures to

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reduce overall electric energy consumption.<sup>1</sup> PacifiCorp is forecasting .72 aMW in savings associated with this program for the 2012-2013 biennial period and total expenditures of \$250,791 for the same period. This new program represents approximately 23% of the savings forecasted for the 2012-2013 residential portfolio and approximately 8% of residential expenditures.<sup>2</sup>

PacifiCorp first informed its Demand-Side Management (DSM) Advisory Group on March 9, 2012, of its intent to implement this program and attribute savings to it beginning in 2012. Since that time, Public Counsel has sent two rounds of discovery and participated in a conference call with the Company and DSM Advisory Group in order to better understand and evaluate the Company's proposed program. In total, the Company has dedicated one page in its revised business plan to support its decision to move forward with this program. The Company has also provided an evaluation plan to the DSM Advisory Group but this was not included in the filing made with the Commission. At this time, there are still a number of unanswered questions regarding the design and evaluation of this program.

It bears mentioning that the Home Energy Report program PacifiCorp is proposing is very similar to the OPower program that is currently offered by Puget Sound Energy. PSE originally offered its program on a pilot basis, during which time it did not count savings associated with the program. In 2011, following an evaluation of the pilot the decision was made, with the approval of PSE's conservation resource advisory group (CRAG), to begin counting savings under the program.<sup>3</sup> Through the course of the PSE pilot and evaluation, stakeholders have gained substantial knowledge on the implementation and evaluation of home energy reporting programs. General industry experience regarding home energy report programs, methodologies for counting savings, etc. has also improved. For example, Lawrence Berkley National Labs (LBNL) recently published a report on evaluation, measurement and verification of residential behavior-based programs.<sup>4</sup> We believe PacifiCorp's approach to its Home Energy Report program should be informed by the knowledge gained through PSE's pilot program as well as advances in the energy efficiency industry related to behavior-based programs.

The section below describes Public Counsel's concerns with certain aspects of PacifiCorp's proposed Home Energy Report program design and evaluation, as well as our recommendations for modifications to the proposed program to align with industry best practices.

**(1) Target Population.**

PacifiCorp has indicated that its proposed Home Energy Report pilot program will provide

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<sup>1</sup> 2012-2013 Biennial Conservation Plan, June 4 Revision, p. 18.

<sup>2</sup> *Id.* p. 4.

<sup>3</sup> October 20, 2011 Puget Sound Energy CRAG Meeting Summary Notes.

<sup>4</sup> State and Local Energy Efficiency Network, 2012. *Evaluation, Measurement, and Verification (EM&V) of Residential Behavior-Based Energy Efficiency Programs: Issues and Recommendations*, Prepared by A. Todd, E. Stuart, S. Schiller, and C. Goldman, Lawrence Berkeley National Laboratory. (Hereafter, "LBNL Report."). Available at: <http://behavioranalytics.lbl.gov>.

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reports to approximately 13,500 customers over the pilot's initial term.<sup>5</sup> However, the Company has not indicated where the pilot will be conducted in its Washington service territory. In designing Home Energy Report programs, there are various factors that affect the validity of the program, including specific factors associated with the location of the pilot. The target population must be large enough to yield a statistically significant result. In addition, the test and control group must be from locations with similar characteristics, such as climate zone, demographics, etc. These factors are essential to designing a valid pilot, however, at this time PacifiCorp has not provided information that allows us to confirm these factors have been addressed. We recommend that PacifiCorp file a revised program plan that identifies the geographic area of the pilot.

## **(2) *Assignment of Households to Control and Treatment Groups.***

One of the recommendations in the LBNL report previously mentioned is that an independent third-party evaluator should conduct the random assignment of households to control and treatment groups, as opposed to the program administrator. This is essential in order to avoid potential conflicts of interest regarding the validity of savings estimates. According to the LBNL report, "using a third-party evaluator that does not have a financial interest in either the quantity of savings achieved or the success or failure of the program (or its implementer or administrator) is the most transparent way to achieve this objective."<sup>6</sup> Specifically, the LBNL report identifies three tasks that should be performed by an independent third party evaluator, including the random assignment of households to treatment or control groups.<sup>7</sup>

Based on PacifiCorp's responses to Public Counsel inquiries, we have learned the program administrator, OPower, will be performing this task and not an independent third-party evaluator.<sup>8</sup> This is explicitly identified as "not advisable" in the LBNL report.<sup>9</sup> We are very troubled with the Company's plans in this regard, given that this is in direct conflict with a best practices recommendation from LBNL. This proposed pilot would represent a large portion of residential conservation savings (23%). Moreover, because the savings at the household level are so small, 1-2% of total annual consumption, the design and integrity of the evaluation are critical. Accordingly, Public Counsel's recommendation is that PacifiCorp should be required to file a revised Home Energy Report program plan stating that the evaluation plan will conform with the LBNL recommendations that an independent third-party conduct the random assignment, as well as other tasks, to avoid a potential conflict of interest.

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<sup>5</sup> 2012-2013 Biennial Conservation Plan, June 4 Revision, p. 18.

<sup>6</sup> LBNL Report, p. 22.

<sup>7</sup> *Id.* In addition to random assignment, LBNL recommends the third-party evaluator define and implement program evaluation, as well as data selection and cleaning.

<sup>8</sup> PacifiCorp's Responses to Public Counsel Second Set of Data Requests.

<sup>9</sup> LBNL Report, p. 22.

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### **(3) *Methodology for Avoiding Double-Counting Savings.***

Most utilities offering behavior-based programs, such as home energy reports, also have a number of other residential energy efficiency programs. In this situation there is an inherent risk that more than one program could claim savings from the installation of the same measure, or “double-count” savings. PacifiCorp has indicated they intend to examine and account for double-counting for those programs that track participation by customer, such as an appliance rebate program, for example. However, with respect to upstream programs, such as the retail CFL program, the Company does not have a methodology to avoid double counting of savings associated with these programs. As discussed in the LBNL Report, determining double counting for upstream programs, where participation is not tracked at the household level, poses challenges and additional research is needed in this area.<sup>10</sup> The Company says that addressing double-counting for upstream CFLs would be especially difficult and require considerable resources to resolve.<sup>11</sup> PSE, however, *has* developed a methodology for addressing double-counting of associated with behavior-base programs, including programs for which there is no tracking data like upstream CFL’s, and we have shared that methodology with PacifiCorp. The LBNL Report recommends that evaluations include a “compellingly rigorous estimation approach” where double counted savings exist for programs that do not track participation at the household level. Our understanding of PSE’s approach is that it would be considered a “compellingly rigorous estimation.” Public Counsel recommends that PacifiCorp modify its evaluation plan to include a methodology to determine double counted savings for upstream programs such as retail CFL’s consistent with the recommendations in the LBNL Report.

### **(4) *Customization of Reports Based on Customer Characteristics.***

PacifiCorp’s evaluation plan describes the information that will be provided to customers in their home energy reports. This includes (a) how their recent energy usage compares to their energy use in the past; (b) information on how their energy use compares to that of similar homes; and (c) tips on how to reduce energy consumption, some of which are tailored to the customer’s circumstances (e.g. customers with pools receive information on how to reduce energy use by pools).<sup>12</sup> PacifiCorp states that OPower uses tip targeting, as described above, based on data available in the service territory. The evaluation plan provided to the DSM Advisory Group did not include a specific discussion regarding analysis to check for statistical validity, or balance between the test and control groups. Using the example above, an equivalency check could be performed to determine whether the treatment and control households were equivalent in terms of the portion of households with swimming pools. The LBNL Report recommends that “an equivalency check is performed with household energy usage profiles as well as demographic, geographic, and other household characteristics.”<sup>13</sup> We therefore recommend that PacifiCorp

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<sup>10</sup> LBNL Report, p. 31.

<sup>11</sup> Evaluation Plan for the Washington Homer Energy Report Program, p. 6.

<sup>12</sup> Navigant Evaluation Plan for the Washington Home Energy Report Program, p. 2.

<sup>13</sup> LBNL Report, p. 28.


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file a revised HER program design and evaluation plan that includes an equivalency check methodology, consistent with the LBNL Report recommendations.

I plan to attend the July 12, 2012, Open Meeting for Public Counsel and will be available to address any questions regarding these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Lea Daeschel", written in a cursive style.

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cc: Mark Vasconi  
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