

Memorandum

To: Bing Tso, President, SBW Consulting, Inc., Faith Debolt, SBW Energy Efficiency Engineer

From: Marjorie McRae, Principal, Research Into Action

Date: April, 1, 2014

Re: Third Party Review of Evaluation Report for PSE's Resource Conservation Manager Program

This memo summarizes Research Into Action's review of the Resource Conservation Manager¹ Program Evaluation Report² produced by SBW for Puget Sound Energy. PSE's Resource Conservation Manger Program provides funding for onsite resource conservation manager (RCM) staff position(s) in commercial or institutional settings, here after RCM refers to the position as compared to the program's name. The memo is written to be included in SBW's current PSE portfolio evaluation report as a third-party review of the prior program-specific evaluation. Our review focused on the suitability of methods and data samples used by the evaluation team, the overall applicability of impact and process findings to the program, and the program's planned evolution in response to the evaluation's findings. Our review assessed whether we had recommendations to offer for further evaluation research.

1.1. Evaluation Review

In order to assess the evaluation, we reviewed the SBW's program evaluation report, which included the *Evaluation Response Report* (ERR), and interviewed PSE's program manager about program changes that may influence the applicability of the evaluation findings to the ongoing program.

We found that the evaluation produced recommendations designed to:

- › **Improve the program's savings realization rates.** Recommendations included requiring more detailed project documentation and quarterly project reporting; improving billing analysis, Energy Interval and Utility Manager software applications, and aggregation of weather station data; and employing a fixed baseline approach to estimate

¹ From interviews with the program manager, we learned the program is updating the program's name to Resource Conservation Management to help clarify that the program also focuses on organizational culture change.

² SBW Consulting, Inc. and DNV KEMA Energy & Sustainability, 2013, *Resource Conservation Program Manager Evaluation*, Puget Sound Energy

savings. The program has begun to implement some of these recommendations and is developing program modifications consistent with the remaining recommendations.

- › **Capture additional energy savings and non-energy benefits (NEB)**—which could offset 50% of program costs. Recommendations included using a fixed baseline approach to estimating savings, and developing strategic partnerships with other resource conservations organizations to help RCMs document and determine approaches to assign value to savings from NEB sources. The program is implementing these recommendations.
- › **Improve participant satisfaction and reduce customers' perceived risks involved with participation.** Recommendations included increasing RCMs' access to training through online training applications; and reducing perceived risks by a pay-for-performance incentive structure³ and providing a 'turn-key' solution—with PSE supplying RCM staffers and providing oversight of these staff. The program is developing program modifications consistent with all of these recommendations.

The reported realization rates were 85% for electric, 70% for natural gas, and 81% for the combined energy savings; the calculated error for these estimates was 31% for electric and 34% for natural gas. The evaluation team attributed the realization rates' shortfall from 100% to the lack of documentation of RCM activities for savings claimed for some project sites. The evaluation team attributed the moderately high error estimates to the high variation in realization rates.

1.2. Evaluation Methodology

The impact evaluation team used random stratified sampling to help reduce estimation errors, and project-specific analysis approaches, either top-down or bottom-up analysis,⁴ to provide maximal precision. The impact team drew a sample of 13 projects with positive savings estimates, and 4 projects with negative savings.⁵

1.3. Conclusion

We found that the evaluation made several recommendations designed to improve program realization rates, capture additional savings from savings that are currently being generated but are beyond measure lives, and improve participant satisfaction and willingness to participate in

³ During the evaluation period the program provided a flat incentive for RCM sites that achieved savings targets, and did not include savings from capital projects. The program plans to modify its incentive structure to a pay-for-performance structure with bonus incentives for RCM sites that achieve targets. The plan will allow program participants to count energy savings from capital projects toward the bonus incentive projects.

⁴ The top-down analysis reassessed projects' program billing analysis savings estimates, and bottom-up approaches quantified savings from engineering calculations and modeling of specific RCM actions.

⁵ The program did not claim savings from projects with negative savings estimates. The impact team sampled these projects to document the causes of negative savings.

the program. We also found that the program is making changes in response to all of these recommendations. Key program changes include implementation of fixed baseline savings estimation protocols, and improvements to project documentation through new program requirements and program software upgrades.

We concluded that the impact team employed methods that provided maximal precision relative to the sample collected by the impact team. We do not recommend further sampling and impact study undertaken with the aim of reducing the realization rate estimation error. The added cost of further study is not cost-efficient relative to the program's savings contribution (5.2%, to PSE's overall portfolio), and the program is implementing recommended changes that should improve its realization rate.