

Evaluating Energy Efficiency

Project Updates - May 2023



► FY2023-2024 Evaluation Strategy

In December of 2022, BPA led a webinar sharing its next two-year energy efficiency evaluation strategy, including proposed research activities and priorities for both process and impact evaluation.

More detail on upcoming impact and process evaluation activities can be found in the following sections. [Follow this link to review the full evaluation strategy.](#)

► Impact Evaluation Activities

In June of 2022, BPA completed an [impact evaluation of custom industrial projects for Option 1 utilities](#). The report documents the results of the evaluation, which is the first of several planned for BPA's custom portfolio. The study was designed and conducted in accordance with BPA's policies for the evaluation of custom measures, and included site visits, data gathering and engineering analysis for a sample of 40 custom measures. The report presents the evaluation's independent estimates of program savings and provides recommendations for future improvements. In addition, BPA's Energy Smart Industrial team prepared a response to each of the recommendations. The memo documents the program team's plans for addressing recommendations, including actions that have already been taken.

BPA also completed two additional impact evaluations earlier this year: [a persistence assessment of Strategic Energy Management](#), or SEM, to inform measure life and an impact evaluation of custom industrial projects, for Option 2 utilities. The SEM persistence assessment approach included the collection of a combination of sources such as interviews with SEM program implementation staff, interviews with onsite production management staff, and data collected from onsite systems. Ultimately, 108 SEM measures were included in the analysis. The SEM survival analysis was conducted using a multistep process including classifying SEM measures, estimating effective useful lifetimes, and estimating survival curves. The custom industrial impact evaluation completed this year was similar to the custom industrial impact evaluation conducted for Option 1 utilities, but with a focus on Option 2 utilities, and a sample size of 22 custom measures.

BPA recently initiated an evaluation of its nonresidential lighting portfolio to understand savings performance and identify recommendations for improving the reliability of savings. The study includes engineering modeling, collection of project files and site visits with a statistically representative sample (meeting or exceeding 80/20) of 38 projects.

In April 2023, BPA launched an impact evaluation of residential air source heat pumps and variable speed pumps that will leverage the prior [impact evaluation of BPA's 2018-2019 residential HVAC program offering](#), completed in 2020, taking advantage of additional installations to increase the billing analysis sample sizes. The new study will estimate energy savings for representative samples of ASHP and VSHP conversions split by HZ and single family (SF) versus manufactured homes (MF).



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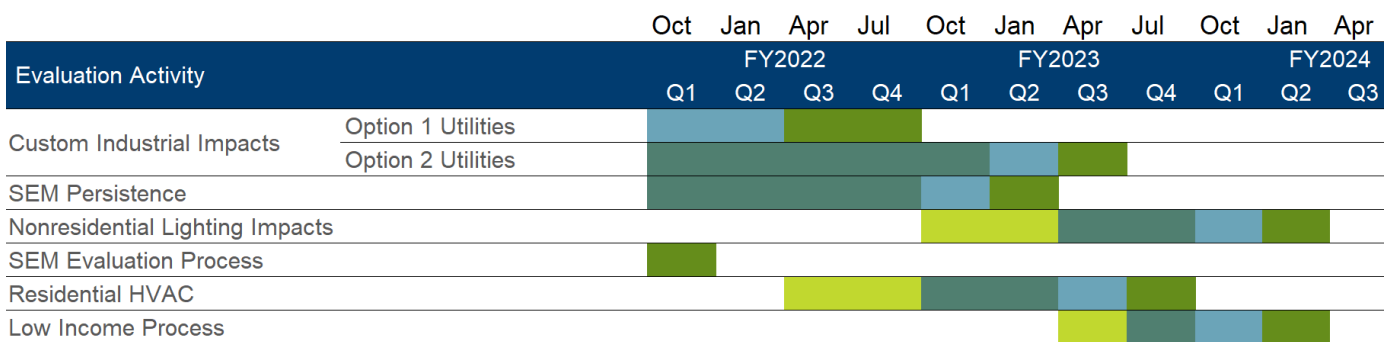
▶ Process Evaluation Activities

BPA has contracted with Evergreen Economics and Apex Analytics to conduct process evaluations of its energy efficiency programs. Process evaluations focus on identifying opportunities to streamline program processes, to make participation more convenient and more appealing for participants and to allow programs to deliver incentives and support more effectively and efficiently.

The first process evaluation effort was an [evaluation of the Strategic Energy Management offering](#). The study was designed to assess how the offering was functioning and how it was received, and to identify any areas of improvement BPA and its implementation contractors should consider. Specific evaluation objectives focused on how end-users were engaging with SEM and adopting SEM practices, the value proposition for industrial end-users and for utilities, results from industrial end-users' participation, opportunities to increase effectiveness of the offering's delivery, and opportunities to expand the offering to more recipients. Results from the evaluation are based on 53 interviews with staff from BPA's program group, customer utilities, industrial end-users, and regional stakeholders.

BPA also kicked off an evaluation of its Low-Income Energy Efficiency program in FY23 to explore opportunities to increase program participation and facilitate greater uptake. This evaluation will focus on the public utility energy efficiency incentives and includes a best practices review, stakeholder interviews, and demographic analysis.

BPA Evaluation Schedule



Learn more at:

www.bpa.gov/energy-and-services/efficiency/evaluation