

Strategic Energy Management FAQ

Bonneville Power Administration, or BPA, has supported a version of Strategic Energy Management, or SEM, since 2009. As of December 2021, 16 cohorts of industrial sites across the Northwest have achieved 120,000 MWh of savings. The core intent of SEM is to empower participants to reduce the energy intensity of facilities or production processes, while establishing a foundational system that allows the participants to track energy performance and savings over a multi-year period. Unlike traditional energy efficiency measures, SEM engagements emphasize savings from behavioral changes and low cost operational & maintenance improvements rather than capital investments.

The SEM measure requires facility commitment and staff participation within a two-year performance period. SEM participants learn about various low- and no-cost changes that can result in immediate savings. Incentives are awarded based on verified energy savings from SEM implementation. Energy savings are calculated through a measurement and verification, or M&V, option described in the BPA Commercial and Industrial, or C&I, SEM M&V Reference Guide, which will be available in the IM Document Library once the new measure becomes effective.

Per notification in the April 2021 Implementation Manual release, BPA planned to sunset the existing SEM Projects measure March 31, 2022, with the new SEM measure becoming effective April 1, 2022. The revised format has been designed to streamline participation, reduce administrative costs, expand the SEM offering across industries, and extend the offering to Commercial participants. A draft of the IM language for the new SEM measure is available [here](#).

The following FAQ is intended to provide additional context for the SEM measure. The IM that becomes effective April 1, 2022, or sometime thereafter, shall take precedence over this FAQ if any descriptions are contradictory.

1. How is SEM different from Custom Projects and Energy Project Manager?

SEM is complementary to BPA's Custom Projects and Energy Project Manager (EPM) offerings. While many end-users participate in SEM in conjunction with these offerings, SEM can be implemented as a standalone measure.

SEM involves an extended engagement through which a site develops the tools, processes, and knowledge needed to identify and implement operational and maintenance-based improvements that result in measurable energy savings. A few examples of action items include optimizing equipment control algorithms, adjusting and verifying set points on existing variable frequency drives, and creating/updating standard operating procedures. Energy savings resulting from SEM implementation are generally calculated using a regression model comparing the facility's normalized baseline energy consumption with the energy use patterns observed during the performance period.

Custom Projects generally target capital investment projects with more discrete scopes and costs. If a Custom Project coincides with the SEM performance period, energy savings will be calculated separately and the consumption data related to the Custom Project will be removed from the SEM model to avoid double counting savings.

The Energy Project Manager measure encourages end-users to dedicate additional staff resources to energy efficiency projects by providing incentives for the development of a comprehensive site plan. While no savings are directly attributable to the EPM measure it has been found to lead to increased use of Custom Projects and SEM by participating sites and provides utilities with greater visibility to future projects with key customers.

Additional information about Custom Projects and EPM offerings are available on the BPA website.

2. How is the new SEM measure different from the existing SEM Projects (Optional ESI Component) offering?

The new SEM measure differs from the existing SEM Projects measure in several key areas. The new SEM measure:

- Is available to both the Commercial and Industrial sectors.
- Has a more streamlined reporting process with reduced documentation requirements.
- Has a single incentive structure with no differentiation between projects with and without cost documentation.
- Has updated documentation of M&V requirements (BPA Commercial and Industrial Measurement and Verification SEM Reference Guide).

Additionally, the funding available for a Performance Tracking System, or PTS, has been removed from the SEM measure and shifted to a stand-alone UES measure that requires active enrollment in SEM. A draft of the IM language for the new PTS measure is available [here](#).

3. How will current participants of the existing SEM Projects (Optional ESI Component) offering transition to the new SEM measure?

Energy Efficiency Representatives (EER) or Contract Officer's Technical Representatives (COTR) will notify utility customers regarding which end-users currently enrolled in the existing SEM Projects (Optional ESI Component) offering will be impacted by the measure transition. Customers with current SEM participants that have a performance period predating the launch will be required to create and submit a new enrollment application via the Bonneville Energy Efficiency Tracking System, or BEETS, upon its release unless an invoice is received by the deadline, whenever that has been decided and shared. Any existing SEM project submitted to BPA after the new measure takes effect must adhere to the updated requirements.

4. Are the technical requirements to participate in the new (Commercial and Industrial) SEM measure substantially different from the current SEM measure?

The approach to estimating savings is largely the same as currently used for industrial SEM projects and the impact on current participants is expected to be minimal. BPA is replacing the Energy Smart Industrial Program's Monitoring, Tracking & Reporting (MT&R) Reference Guidelines with the new BPA C&I SEM M&V Reference Guide. The primary difference between these two documents is the addition of guidance specific to commercial facilities without significant process load. All SEM participants will be required to follow the BPA C&I SEM M&V Reference Guide, which is based on industry best practices after the new measure launches.

5. How will BPA support SEM in the industrial sector?

The Energy Smart Industrial, or ESI, program will continue to provide utility customers support in offering and delivering SEM services to their industrial end-users. This includes SEM engagement plan support, development of predictive baseline energy models, assistance with using an appropriate Performance Tracking System, delivery of SEM training workshops or tune-up support, energy scans to identify O&M (and capital) measures, and development and delivery of SEM completion reports.

6. How will BPA support SEM in the commercial sector?

BPA staff are available to consult with customers interested in pursuing SEM opportunities with their commercial end-users. Unless customers have staff with the experience and capacity to deliver SEM, customers will likely require the assistance of a SEM provider to support at least some aspects of the engagement planning, model development, energy scans and completion report development. Note: the ESI and Trade Ally Network NW program partner staff are not available to assist with commercial sector SEM projects

7. What type of site would make a good SEM cohort candidate?

Organizations with successful SEM engagements have clear support from executive leadership, a designated Energy Champion to lead implementation, and are willing to consider new methods and procedures to improve energy performance and reduce costs.

The following is a list of desirable organization characteristics for a SEM candidate:

- Sufficient energy savings potential to warrant the required investment of program resources.
- Previous implementation of a custom project, lighting project or UES measure(s).
- Supportive management with the ability to form and articulate a connection between energy and a strategic business objective (e.g., sustainability, cost reduction, employee development).
- Recent success implementing continuous improvement in another aspect of the business (e.g., safety, quality, cost, lead-time).
- No major changes (organizational, process or structural) within the past or next 12 months (e.g., mergers/bankruptcy, new process loads, additions to the facility).
- A collaborative organizational culture, with recent examples of cross-functional initiatives involving operations-level personnel.
- Continuous learning and professional development are highly valued.

8. How do I claim savings from qualifying SEM measures?

Energy savings from SEM projects will be reported via an annual application within the BEETS platform. Each year's application includes annual completion reports and corresponding SEM calculators. An optional template will be available for each of these documents, but any forms meeting the requirements outlined in the IM will be acceptable.

9. Who should I talk to if I have more questions about the new SEM measure?

Contact your EER with questions or concerns.