

A Competitive Edge in Utility SEM Programs

A SEM Consultant's Perspective

Program administrators, utilities, and energy service providers across the country are increasingly engaging their industrial, commercial and municipal customers in strategic energy management (SEM) programs to achieve sustainable and persistent energy savings. Through these SEM programs, customers set up the processes needed to consistently identify energy-savings opportunities, capture energy savings, and measure results.

Based upon recent third-party evaluations of SEM programs¹ and other analyses², SEM has been observed to deliver measurable savings and added value for customers. DOE's 50001 Ready program, which provides robust tools, globally endorsed best practices, and other resources—as well as the option for national recognition can be leveraged to enhance SEM programs. Strategic Energy Group (SEG), a **50001 Ready Partner**, is one energy service provider that quickly recognized 50001 Ready's potential to enhance the utility SEM programs they support. SEG works with many utilities across North America, including the Tennessee Valley Authority (TVA), PG&E, PPL Electric Utilities, and Idaho Power.

50001 Ready: An SEM Advantage

Building on the success of working with over 1,000 commercial and industrial sites, SEG staff found that the 50001 Ready program and its Navigator tool added significant value to their programs in the these four respects: systematic gap-assessment strategies, access to actionable resources and tools, live and relevant support by technical experts, and national recognition for their achievements.

Complete internal audit and identify gaps

SEG integrated 50001 Ready and the 50001 Ready Navigator tool midway through its two-year SEM offering under the TVA EnergyRight Solutions program. All participating facilities welcomed the opportunity to engage with 50001 Ready. Customers and SEG alike found that the Navigator tool helped the facilities bolster



Strategic Energy Management Program Kickoff Workshop. Photo credit: Nancy Cowley, SEG

The U.S. Department of Energy's **50001 Ready** program recognizes U.S. facilities and organizations that practice ISO 50001-based energy management. The program is a self-paced, no-cost way for organizations to build a culture of structured, continuous, energy improvement leading to deeper and more sustained savings. No external audits or certifications are required.

DOE's award-winning **50001 Ready Navigator tool** provides free, online guidance to any organization that wants to implement an energy management system aligned with the ISO 50001 global best practice standard.

"Along with business productivity, energy really is the leading metric. The one-two punch of energy reduction plus process improvement really gets you ahead of the game - It's all about organizational change and 50001 Ready provides a pathway and annual gap analysis for an energy management process. With a structured approach like SEM and 50001 Ready, we have experienced a savings range of five to twenty-two percent net of capital"

- Ed Birch, Principal, Strategic Energy Group

¹ www.bpa.gov/EE/Utility/research-archive/Documents/Evaluation/170222_BPA_Industrial_SEM_Impact_Evaluation_Report.pdf

² aceee.org/files/proceedings/2015/data/papers/1-121.pdf

their energy management system (EnMS). In particular, the tool confirmed the value of the SEM internal auditing process and made clear how the SEM steps work together to manage energy more efficiently and sustainably.

Working with a second TVA SEM cohort in 2019, SEG is introducing the Navigator tool earlier in the process. The participating facilities report that the tool helps to validate and manage tasks as they go through them. SEG also uses the Navigator with school districts served by Idaho Power. The Navigator has now earned a permanent place in SEG's SEM toolbox.

Resources for sustained energy savings

The Navigator offers self-paced tasks and supporting resources to assist users. For example, the tool can help users identify energy baselines and Significant Energy Uses (SEUs), track energy use, and develop effective energy policies. Having adopted 50001 Ready, SEG is now exploring the use of another 50001 Ready-compatible DOE tool: EnPI Lite, which helps estimate energy savings affected by site-driven variables, like weather or production levels. This tool can analyze data from DOE's Energy Footprint Tool or the ENERGY STAR Portfolio Manager.

DOE interactive support

50001 Ready recognition requires the completion of all Navigator tasks, so SEG assists facilities as they set up accounts within the tool and work through the tasks. Contractors and users alike can obtain expert guidance on use of the tool by directly contacting the 50001 Ready Help Desk.

Program validation and Federal recognition

Many organizations participating in SEG's SEM programs have now earned the 50001 Ready recognition from DOE, and others are close to achieving that goal. These organizations value federal recognition of their energy achievements. In addition, consumer-facing industrial companies with environmentally conscious customers find 50001 Ready reinforces their lean and sustainability-focused manufacturing approach. Public sector organizations (including school systems) appreciate that their DOE-issued 50001 Ready recognition certificates demonstrate responsible use of taxpayer dollars.



Polaris and SEG TVA Cohort 1; Polaris Energy Scan
Photo Credit: Ed Birch, SEG

50001 Benefits Realized and Next Steps

As SEG continues to support wider adoption of SEM programs, the organizations they assist achieve about a **5% to 15% annual improvement in energy performance—directly improving their bottom lines.** SEG finds 50001 Ready provides a useful stepping stone for end users who are new to energy management, a helpful review or educational tool for those with some experience, or a valuable evaluation tool for those who want to prove the robustness of their existing system.

The 50001 Ready Navigator can complement an existing program, like SEM, as well as independently guide any type of organization, from Better Plants manufacturing partners to schools and commercial firms, as they set up a robust energy management system—from start to finish.

“Conforming to ISO 50001 generates an enormous amount of information and can be daunting; DOE’s tool makes it accessible. 50001 Ready is a continuous improvement program with a clear strategy that supports persistent savings as evident to the bottom line.”

- Ed Birch, Principal, Strategic Energy Group

U.S. organizations strengthening their energy management activities with 50001 Ready can take advantage of additional DOE technical assistance, resources, and recognition available through the Better Plants Program.