QUAD – Embracing 50001 Ready Across its Facilities

BACKGROUND

Quad is a global marketing experience company headquartered in Sussex, Wisconsin. The company operates approximately 40 printing locations throughout North America, South America, and Europe where it produces long-run magazines and special interest publications, catalogs, retail advertising inserts, direct mail, packaging, in-store signage, and displays. Over several years, it has implemented energy management systems at several of its U.S. facilities, leveraging lessons learned from early pilots in later implementations. Quad has also leveraged several utility-sector energy management programs to gain additional training and resources for its many energy teams.

Although the company has a long history of energy performance improvement efforts, Quad's approach to energy savings was largely comprised of a series of standalone projects. The partnership between Quad and DOE and participation in utility-sector strategic energy management (SEM) programs provided a structured approach for its facility energy teams to refine their focus, prioritize energy efficiency efforts, and establishing roadmaps toward concrete objectives. Piloting use of the 50001 Ready Navigator at its facility in West Allis, Wisconsin proved the benefits of participating in the 50001 Ready program and served as a springboard for 50001 Ready implementations at its Hartford, Saratoga Springs, and Sussex locations. The company plans to continue pursuing energy management improvement activities at several other facilities.

SOLUTIONS

Quad has a history of commitment to continuous improvement practices and now incorporates ISO 50001 energy management principles into this corporate culture. Energy savings has long been a high-level goal and Quad sees sustained cost savings as an incentive for implementing energy management systems and working towards additional 50001 Ready recognitions.

Quad's West Allis Team. *Photo credit: Quad*

Their facility in West Allis began working with the Wisconsin Focus on Energy program in 2003 and enrolled in the U.S. Department of Energy's (DOE's) Better Plants program in 2009. By 2015, when Focus on Energy launched its strategic energy management (SEM) program, the facility had made major strides in energy management and was ready to join the SEM Leaders program. The West Allis facility first earned 50001 Ready recognition in February 2019 and has since been recognized for three consecutive years.

Upon the heels of the West Allis plant's 50001 Ready success, the company's team in Hartford recognized an opportunity to bring energy management to the forefront, underscoring its focus on sustainability and realizing energy and cost savings. The Hartford facility achieved 50001 Ready recognition in February 2021.

Quad's Saratoga Springs plant achieved 50001 Ready status in 2022. The plant was already a Better Plants partner and participated in a local SEM program supported by the New York State Energy Research & Development Authority (NYSERDA), Cascade Energy (the local utility), and the Vermont Energy Investment Corp (VEIC).

Sussex, another Quad plant that took advantage of an SEM partner program through Wisconsin's Focus on Energy as well as a Better Plants **50001 Ready cohort**, implemented a 50001 Ready energy management system shortly after the Saratoga location.

OTHER BENEFITS

Implementation of a robust energy management system at multiple Quad facilities has resulted in additional benefits and associated energy savings. Here are just a few:

- **Energy Savings:** 50001 Ready highlighted key energy-saving opportunities. At Hartford, for example, the energy teams focused on systems that run on compressed air, as Hartford alone has nearly 3,400 hp in compressors that can consume as much as 14 million kWh of electricity annually. The team has re-emphasized a tool to track air leaks, as well as improved procedures so the compressors don't run when they're not needed. These small steps alone led to substantial savings. Also, 50001 Ready helped identify and eliminate energy usage that did not add value. For example, when a press is idle for a predetermined time period, the staff follows procedures to shut down unnecessary energy-using equipment (e.g., shuts off trim waste collection fans, dials back compressed air systems, and shuts off conveyor belts).
- **Improved Tracking:** The 50001 Ready Program prompted the facilities to reactivate their energy teams and keep better track of energy consumption to reduce energy costs. 50001 Ready breaks down a seemingly overwhelming undertaking into easy-to-follow tasks that can be done one at a time. The Navigator performance tracker model accounted for variables such as weather and ongoing changes in energy performance, making it more accurate and effective than the facility's previous model.
- **Clear Guidance:** The Navigator tool proved effective and user-friendly. The teams felt it provided practical information and explanations. The templates and documents were found to be particularly useful, as these items helped team members get off to a confident start. From there, the Navigator kept them on the path, guiding them step by step and allowing them to benchmark progress.
- **Operations and Review:** The operational control section of the DOE Navigator tool helped the teams explore energy-saving opportunities. For example, the tool led team members to explore how well employees responsible for operating presses and finishing equipment understood the impacts of their choices on energy consumption. In essence, it helped connect the dots between employees who use equipment and the amount of energy that is consumed. The internal audit was valuable as a final review of the overall effort, including energy considerations and system design. The audit empowered the team to accurately identify when the facility had hit the mark in implementing energy performance improvements.
- **Employee engagement:** In keeping with 50001 Ready, the facilities reached out to their employees, educating them about energy management, building awareness of the energy management program, and enlisting them in the process. For example, the West Allis energy team now receives ideas in a suggestion box and adds them to the project register. By engaging all the production partners, the team receives a broad spectrum of input and keeps energy management in the forefront.