SHOWCASE PROJECT: CHARTER STEEL — 50001 READY FACILITY

SOLUTION OVERVIEW

Headquarters and integrated mini mill, Saukville, Wisconsin
(50001 Ready, August 2017; ISO 50001 Certified, December 2017)

Processing and distribution facility, Fostoria, Ohio
(50001 Ready, November 2018; ISO 50001 Certified, January 2019)

Charter Steel is featured in DOE's Direct Current Podcast, a modern love story that follows two "energy detectives" as they hunt down energy waste to yield big cost savings. Listen to the "Power Couple" (S2 E9)

Charter Steel produces carbon and alloy steel rod, bar, and wire for customers throughout the country. The company operates a fully integrated mini mill at its headquarters in Saukville, Wisconsin; a similar mill with melt and rolling plants in Cleveland, Ohio; and a processing and distribution facility in Fostoria, Ohio. The company’s strategy for success included joining the U.S. Department of Energy’s (DOE) Better Plants program and continuing to work on energy management with EPA's ENERGY STAR and Wisconsin Focus on Energy.

Charter Steel’s commitment to continual energy improvement is driving progress toward its goal. The Saukville site earned 50001 Ready recognition from DOE in August 2017 and credits the process with significantly expediting its ability to get ISO 50001 certified just four months later. The company’s coiled steel processing facility in Fostoria then leveraged the experience at Saukville to earn 50001 Ready status in November 2018 and ISO 50001 certification in January 2019.

LOCATION

Saukville, Wisconsin

SOLUTIONS


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“It’s one thing to read the standard, but translating it into daily action requires considerable thought and translation. 50001 Ready provides that translation or direction you need—to make sure you’ve got all the critical elements covered.”

Katie Dimmer
Energy Engineer, Charter Steel

The energy team at Saukville used technical guidance from external consultants and DOE’s 50001 Ready Navigator tool to make sure it was fully prepared for the ISO 50001 audit process and certification. Through this initial experience at Saukville, Charter Steel established a repeatable methodology to help its other facilities implement an ISO 50001 energy management system and help meet the company’s 2026 energy goals.

Efforts by Charter Steel’s Saukville team and corporate energy leadership allowed the Fostoria staff to readily complete some tasks for 50001 Ready. The clear context and practical guidance in the Navigator tool also proved useful. Team members took screenshots of information provided in the tool to share with colleagues at the plant to help them understand the actions and data needed (e.g., energy performance of significant energy uses). This approach helped all team members understand and efficiently complete key steps. The Fostoria staff also found the Navigator tool helpful in identifying training needs and understanding meter calibration to improve the accuracy of energy usage data.

Implementing a 50001 Ready Energy Management System

- Based on prior work on energy management guided by Focus on Energy and external consultants, the Saukville facility needed only three to four weeks to meet all 50001 Ready requirements; the Fostoria facility reports that their entire implementation process took about six months.
- Charter Steel’s Energy Teams span three levels: Energy Management Review Team from executive management; the Cross-functional Enterprise Team to oversee objectives and targets; and the Plant-level Implementation Teams, which include the plant manager, plant metallurgist, maintenance manager, and support staff.
- The 50001 Ready Navigator tool serves as a useful “checklist” to make sure the process for implementing the energy management system is complete and robust. It helped the Saukville team assess system status, identify remaining ISO 50001 requirements, and define action items. The Fostoria staff found the Navigator tool particularly helpful in identifying training needs and calibrating meters to improve the accuracy and reliability of energy data.
- Corporate managers appreciate the Navigator tool as a means to gain an accurate overview of the status at each facility. The tool also alerted managers to the value of raising energy awareness among all plant personnel; the company has achieved significant energy savings based on suggestions from floor employees (e.g., compressed air leaks, notched V-belts on
motors, tuned air dampers, recovering waste heat, etc.

- Keys to success: (1) Drive to establish a system that endures and continues to capture savings, even with eventual staff turnover. (2) Great relationships among energy team members and strong support from upper management.

Key Takeaways

"50001 Ready helped raise awareness, interest, and support for project completion. [Energy] projects...are getting done now because we have data to show the ROI. Going through 50001 Ready was a good stepping stone to achieving our ISO 50001 certification."

Tari Emerson, Director of Energy Saukville facility, Charter Steel

The energy management system at Charter Steel has increased corporate awareness of energy issues and strengthened management support for energy efficiency projects. Achieving 50001 Ready and ISO 50001 certification at one facility helped foster a culture in which all staff are engaged, asking questions, and coming up with innovative ways to improve energy efficiency. Use of the 50001 Ready Navigator has facilitated and upgraded communications between on-site team members and off-site energy management leads—improving the coordination and efficiency of energy-related activities. By 2020, Charter Steel plans to help its Cleveland facility earn 50001 Ready status and ISO 50001 certification.

OTHER BENEFITS
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Charter Steel facility


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