SOLUTION OVERVIEW
Polaris Industries, headquartered in Minnesota, manufactures a diverse range of powersport vehicles such as snowmobiles and ATVs and related products for recreational, commercial, and military customers around the globe. Dedicated to helping outdoor enthusiasts enjoy their passions, the company understands the importance of environmental protection and sustainable manufacturing practices.

The Huntsville plant is the newest and largest of the Polaris’ ten U.S. manufacturing facilities. Its 950,000 square-foot plant sits on a campus of more than 500 acres. The plant’s 1,350 employees produce off-road and on-road vehicles. Vehicle manufacturing and assembly activities account for about 85% of the space, while the remainder is used for materials storage and shipping. On the manufacturing side, various divisions cut, bend, weld, and powder-coat raw tubes, while other divisions perform injection molding and operate an auto-grade paint facility. The components come together along a central assembly line.

For nearly two years, the Huntsville plant has participated in a strategic energy management (SEM) initiative administered by the Tennessee Valley Authority (TVA) and Athens Utilities. Staff from the nine plants in this SEM cohort share helpful insights and a friendly rivalry, breeding an enthusiasm for energy savings. Polaris has a strong interest in strategies to help meet global corporate metrics for sustainability and cost reduction.

LOCATION
Huntsville, Alabama

SOLUTIONS
As a newer facility, Polaris’ Huntsville plant saw an opportunity to lead the company toward greater sustainability by applying lean manufacturing practices. Energy efficiency ties in nicely with this “lean” focus, which seeks to avoid all forms of waste or inefficiency. With the encouragement of the TVA’s EnergyRight Solutions SEM initiative, the plant began to improve operations by factoring energy considerations into daily tasks. The plant learned about the U.S. Department of Energy’s (DOE) 50001 Ready program through their TVA cohort consultant from the Strategic Energy Group (SEG).

Polaris management appreciates the rigor and structure of 50001 Ready, its support from DOE, and its ability to pave the way for potential certification to the global ISO 50001 standard, if they choose to go that route. In the first year of the SEM initiative, with help from the DOE 50001 Ready Navigator tool, the Huntsville plant saved at least 2.6 million kilowatt hours with realized savings of nearly $200,000, just by primarily implementing simple operational changes.

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Implementing a 50001 Ready Energy Management System

✅ Committed to continuously improving performance and reducing operating costs, Polaris’ Huntsville plant enlisted the support of the TVA and SEG in 2017 to embark on their Strategic Energy Management journey. In 2018, the team selected DOE’s 50001 Ready Navigator as their central tool to guide them through this process.

✅ The SEG consultant helped the facility make potential energy savings real for its equipment operators; together, they posted signs showing the potential savings when unused machines are turned off (e.g., if not shut down, X amount of energy will be wasted over the next eight hours).

✅ Nine people participated on the Energy Team to carry out tasks as part of DOE’s 50001 Ready Navigator tool. Areas of expertise included environment, health and safety, financing, engineering, facilities, and operations. Tasks were delegated to the relevant areas of expertise on the team, with SEG providing guidance as needed.

✅ The team appreciated how the Navigator tool provided a simple entrance point that enabled them to make strides in their progress quickly building from the more basic tasks toward a more structured system approach. It helped the team identify gaps, brainstorm solutions to close those gaps, and chart a path forward to meet plant objectives (spending about five or six months on closing gaps).

✅ Leveraging the plant’s existing Value Improvement Process for lean manufacturing, the plant added an Energy Reduction category to the computerized system’s existing improvement areas (Productivity, Safety, and Environment)—embedding energy efficiency into the process objectives.

✅ As part of the 50001 Ready process, the team found that energy efficiency was not formally included in all engineering specifications and purchasing decisions. Now, procurement protocols clearly specify consideration of energy-efficient options.

✅ The Energy Team met every two weeks to provide progress updates. It took the team two to three months to complete DOE’s 50001 Ready Navigator.

Key Takeaways


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The 50001 Ready Navigator can help facilities participating in utility SEM programs by ensuring that their new energy management approach addresses all important facets of the operation. Additionally, for Polaris, the Navigator introduced a rigor and record that will in turn become institutionalized knowledge to be shared easily with others. With its leadership and effective implementation of its facility’s energy management system program, the Huntsville plant attracted the interest of its corporate management. The team has now been invited to mentor other sites with the goal of replicating their success across the organization.

OTHER BENEFITS
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Polaris' Huntsville plant team

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