



## SHOWCASE PROJECT: NISSAN NORTH AMERICA: THREE 50001 READY FACILITIES

### SOLUTION OVERVIEW

Nissan North America, a Better Buildings, Better Plants Challenge Partner, has recommitted to a 15% reduction of energy consumption in its three U.S. manufacturing facilities by 2022 after having achieved a 25% reduction in five years, affecting over 12 million square feet of plant space. This effort is part of Nissan's global environmental action plan, the Nissan Green Program, which encompasses a broad application of fuel-efficient vehicles and corporate carbon footprint minimization. Corporate goals and customer expectations drive the company's strong commitment to energy efficiency.

### SECTOR TYPE

Industrial

### LOCATION

Smyrna, Tennessee

### PROJECT SIZE

12M square feet

### SOLUTIONS

Nissan's three U.S. manufacturing facilities—two automotive assembly facilities and a powertrain facility—have achieved certification to ISO 50001 and Superior Energy Performance by implementing a structured energy management system. In 2017, Nissan participated in DOE's Enterprise-Wide Accelerator to use a [multi-site approach](#) to ISO 50001 adoption, contributing to annual savings of \$9.4 million.

Nissan has continued to build upon its certified energy management system by using the 50001 Ready Navigator to train new staff, and by achieving the 50001 Ready designation to explore a no-cost way to promote energy management practices across its supply chain.

### Implementing a 50001 Ready Energy Management System

- *Time commitment:* Approx. one week to use the Navigator to review and confirm established

<https://betterbuildingssolutioncenter.energy.gov/iso-50001/showcase-projects/nissan-north-america-%E2%80%94-three-50001-ready-facilities>

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EnMS practices.

- *Energy team:* Cross-functional team of energy, environmental, facility engineers, purchasing, manufacturing, and more.
- *Keys to success:* (1) Sub-metering and analytical tools helped define metrics, identify opportunities and quantify results from specific actions. (2) Merging energy and environmental policies and procedures simplified implementation.

## **OTHER BENEFITS**

**Nissan North America leverages 50001 Ready to train new staff and to help suppliers establish a cost-effective energy management system to expand savings, achieving the 50001 Ready designation at three facilities:**

- **Vehicle assembly plant in Smyrna, TN**
- **Vehicle assembly plant in Canton, MS**
- **Powertrain plant in Decherd, TN**

## **Key Takeaways**

Every organization needs to onboard new employees; and for Nissan's energy team, the 50001 Ready Navigator proved an effective tool to train new staff on the organization's energy management processes. Over the course of approximately one week, a new hire on Nissan's energy team used and completed the 25 tasks in the 50001 Ready Navigator to familiarize himself with ISO 50001 in general as well as Nissan's SEP-certified energy management system. Following his successful use of the Navigator as a tool for self-paced training, Nissan intends to continue to use the Navigator to educate and engage staff—and increase awareness and buy-in.

Participating in 50001 Ready also helped Nissan to understand first-hand the value of the designation and the steps to achieve it, so that they can promote the program throughout its supplier facilities, many of which are small and medium-sized enterprises. By encouraging the adoption of energy management systems through 50001 Ready, Nissan expects to continue to drive down its corporate carbon footprint via suppliers that establish structured management practices to improve energy performance—especially with smaller suppliers that may not have internal resources for ISO 50001 certification to be cost-effective.

**Annual Energy Use**

**Annual Energy Cost**

**Energy Savings**

**Cost Savings**

