



Department of  
**Environment &  
Conservation**



## **NISSAN North America- Smyrna and Decherd, TN**

Nissan North America, Inc. operates two manufacturing facilities in Tennessee — a vehicle manufacturing facility located in Smyrna, with a capacity of producing over 650,000 vehicles per year, and a powertrain facility located in Decherd that produces engines for various vehicles, as well as electric motors for the Nissan LEAF.

With a manufacturing footprint of over ten million square feet, Nissan has been a long-standing steward of the environment, striving daily to minimize the impact to natural resources. The U.S. Environmental Protection Agency ENERGY STAR® and the Department of Energy Better Plants programs, among others, have recognized the company's efforts.

For the seventh consecutive year, Nissan's Energy Program has achieved ENERGY STAR's highest honor, the Partner of the Year – Sustained Excellence Award. This award is given to organizations dedicated to protecting the environment by making their operations more energy efficient.

NGP2022 is Nissan's latest global environmental mid-term plan targeting CO<sub>2</sub>, water, and waste reductions by 2022. Incremental targets are established yearly and the facilities in Tennessee continue to meet or exceed the targets. The Energy Team is very active, meeting weekly with the other facilities to discuss benchmarking and project tracking to reach established targets. Results and activities are discussed monthly with the leadership team in the Executive Utility Meeting.

# **NISSAN**

- **Member 2017**
- **US EPA Energy Star Partner of the Year**
- **Established in 1983**



A positive impact of these activities is that the vehicle manufacturing facility currently requires 49 percent less water per vehicle produced, when compared to the base year of 2010. Much of the water within the facility is now being recirculated due to the installation of additional filtration, as well as redirecting water that rinses vehicles back to the start of the metal paint pretreat process. Treated wastewater from the wastewater pretreatment facility is used for process mixing, as well as seal cooling in pumps. In Decherd, an additional Reverse Osmosis unit was recently installed to capture reject water from the primary system and filter the water for blending in other operations. Nissan has been able to reduce the water consumption by over 90 million gallons annually through these initiatives.



Waste is a visual impact to the environment. Nissan has increased their recycling rates to over 98 percent of their manufacturing waste, thereby decreasing the environmental impact to local landfills. In addition, Nissan participates in the Adopt-A-Highway program with the local Smyrna Road Department. Over the past two years, various groups have removed over 120 bags of trash along the road in front of the facility. Various Business Synergy Teams throughout the facility support this activity.

CO2 reduction is achieved through energy reduction programs throughout Nissan. To help achieve this goal, the Energy Team reviews every purchase order request submitted for approval for potential energy impacts. Nissan also conducts energy "Treasure Hunts" where members of various departments, and different plants, perform a three-day review of activities throughout the weekend to include shutdown and startup operations. Wade Willatt, Senior Energy Engineer, says, "This has greatly

increased awareness throughout the plants as Treasure Hunts require participation by so many Nissan and contract employees that do not always understand their impact to energy consumption."

Conducting Treasure Hunts, typically during the weekend, allows for easier focus on air leaks, unnecessary lighting, and waste heat or cooling. In the past year, the team has identified over 150 projects. Many of these projects have recently been completed, accounting for an annual reduction of over 6,075 metric tons of CO2.

Nissan has also made the exceptional commitment to become a part of the [Tennessee Materials Marketplace](#), an online platform allowing businesses and organizations to connect and find reuse and recycling solutions for waste and by-product materials. In doing so, Nissan joins over 25 other Tennessee Green Star Partner industries in promoting and participating in Tennessee's emerging circular economy.

The [Tennessee Green Star Partnership](#) is a voluntary environmental leadership program designed to recognize industries in the state that are committed to sustainable practices. If you are interested in joining Nissan North America and other sustainable industries in Tennessee by becoming a member, please contact us.



**SMYRNA MANUFACTURING:** *We build more than great cars.*

**WE BUILD...Sustainable Solutions**  
Reducing our carbon footprint builds a better future. The Smyrna Facilities Team works hard to create sustainable solutions and lower our energy use. As a result, Nissan has received the ENERGY STAR® Partner of the Year – Sustained Excellence Award every year since 2010, the highest honor given to organizations dedicated to protecting the environment.

