

# SolarEdge Drives Faster Payback for Haldeman Ford Dealership

► Hamilton, NJ

► 310 kW



Installation Date: December 2014

Inverters: 13 SolarEdge SE20k

Power Optimizers: 510 SolarEdge P700

Modules: 1,020 Lightway 305W

Installed by: e2/ECTA

Commercial solar PV is on the rise, as businesses are increasingly recognizing the potential to save on energy bills by transforming unused rooftop space into an additional value stream. When New Jersey-based car dealership Haldeman Ford sought to put the brakes on its electricity expenses with a 310 kW array, local EPC e2/ECTA turned to SolarEdge's commercial solutions to make the most of available design space and accelerate its customer's return on investment.

## Flexible Design and Improved PV Economics

SolarEdge's power optimizers and three-phase inverters are specifically designed to help commercial project owners maximize system yields. By performing maximum power point (MPP) tracking at the module level, SolarEdge power optimizers condition the power from each module to eliminate losses from mismatches and improve energy harvest. Additionally, because these units regulate the voltage of each module, power optimizers enable installers to incorporate string lengths up to 100 percent longer than possible with traditional string inverters.

For the Haldeman Ford system, e2/ECTA installed 500 P700 power optimizers across the array's modules. SolarEdge's technology can be configured in a 2:1 module-to-optimizer configuration, enabling a 50 percent reduction to rooftop part count for significant electrical balance of system (eBoS) cost savings.



e2/ECTA also selected 13 SolarEdge SE20k string inverters, architected to work exclusively in conjunction with power optimizers for enhanced cost and performance benefits. SolarEdge inverters operate in an advanced, fixed-voltage mode, regardless of string size or temperature. This allows installers to incorporate uneven strings into array designs to further improve yields. Additionally, the inverters' lightweight construction (less than 80 lbs.) permits a wider range of mounting options at the project site.

## Enhanced Safety

e2/ECTA chose to implement SolarEdge's rapid shutdown functionality ahead of the 2014 National Electrical Code implementation in New Jersey. This feature, which is embedded into SolarEdge power optimizers, provides an extra layer of security for workers during system installation and maintenance. In the event of extremely high temperatures, such as a fire within the building, the system will rapidly respond by automatically shutting down high-voltage DC across the rooftop, safeguarding first responders.

## Simple, Efficient System Monitoring

Much like the dashboards adorning cars across the Haldeman lot, the SolarEdge monitoring portal puts system performance data front and center for the teams at both Haldeman Ford and e2/ECTA. This online system features real-time and historical data at the module, string and system levels to facilitate simple diagnostics and minimize long-term O&M costs.

To date, the SolarEdge-optimized system has delivered stellar performance. The project is expected to pay for itself in just two years' time, allowing the Haldeman team to sit back and enjoy energy savings in cruise control.