

Hoffman Development Corporation



"If a car is being dried and another car is coming down the line, it makes no sense to turn a motor off and then back on. Between all of the high-pressure water pumping systems and the fans that dry the cars, the amount of energy used (with the VSDs) will be dramatically decreased."

- Tom Hoffman, Jr
Hoffman Development Corporation

Energy-Efficiency Improvements at Car Wash Facility

Wilton, Saratoga County

Background

Hoffman Development Corporation operates the Hoffman Car Wash chain throughout the Capital District Region. For one of its new automatic car wash facilities, in Wilton, Saratoga County, Hoffman considered installation of motors with variable speed drives (VSDs) for energy-efficiency.

The corporation asked NYSERDA for assistance through the **New York Energy SmartSM** New Construction Program to determine the energy-saving potential of this measure.

Recommendations

An energy analysis conducted by Science Applications International Corporation (SAIC), a NYSERDA technical consultant, showed that installation of motors with VSDs could reduce energy consumption and energy costs at the Wilton car wash.

In most car washes, motors run continually, even though cars pass through less than 50% of the time. Variable speed drives allow for an automatic standby mode when there is a significant gap between vehicles in the car wash. During standby, VSDs reduce motor speed on both the drying fans and pump motors, cutting both electricity consumption and demand on these motors.

Incentives and Results

NYSERDA provided Hoffman Development Corporation with an incentive of **\$37,973** to offset a portion of the additional costs of the VSDs. The VSDs provide the following benefits to the Hoffman Corporation at its Wilton facility:

- More than \$9,500 in annual energy savings
- A reduction of 122,000 kWh annually

The company has been pleased with the efficiency performance, and plans to install more variable speed drives in existing facilities over the next few years.

New York Energy SmartSM

All **New York Energy SmartSM** programs are funded by a System Benefits Charge (SBC) paid by electric distribution customers of Central Hudson, Con Edison, NYSEG, Niagara Mohawk, Orange and Rockland, and Rochester Gas and Electric. NYSERDA, a public benefit corporation established by law in 1975, administers SBC funds and programs under an agreement with the Public Service Commission.

New York Energy SmartSM programs are designed to lower electricity costs by encouraging energy efficiency as the State's electric utilities move to competition.

The programs are available to electric distribution customers (residential, commercial, institutional, and industrial) who pay into the SBC.

