



Service/Product Provider

Siemens Building Technologies

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Business: Engineering, Performance Contracting
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Industrial Partner

Ford Motor Company

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Business: Automotive Manufacturing
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Siemens installs energy efficiency improvements and saves assembly plant over \$4 million per year in energy costs.

Project Scope

Siemens implemented comprehensive energy savings retrofits at the Ford Plant.

Project Summary

The plant retrofit included plant-wide energy management system upgrades. The lighting system was upgraded by replacing bulbs in over 12,000 fixtures with high efficiency T8 technology. Paint shop improvements included positive pressurization of the paint shop, compressed air blow offs converted to high pressure fan powered units, and a spray booth cascade air system. The cascade system significantly reduced conditioned outside air and the idling system minimized airflow during non-production hours.

- **Energy Savings**
Electric savings equaled \$1.7 million or 39,000,000 kWh annually, Natural gas savings equaled \$2.6 million or 558,000 MCF annually, Water savings equaled \$81,000 or 18 million gallons annually
- **Investment**
Total plant improvements cost \$20 million
- **Financial Return**
The project was funded completely from energy savings over a 6-year period
- **Other Benefits**
Reduced VOC and paint particle exhaust emissions. Increased paint transfer efficiency and reduced dirt infiltration in paint spray booths

Monitoring & Verifying Energy Savings

Monitoring was carried out through monthly reporting of metered energy savings compared to baseline with adjustments for variations in vehicle production and weather.

Distinguishing Value

Construction was completed in 8 months without any disruption to vehicle production. Recent increases in natural gas pricing will yield dollar savings that are significantly higher than the \$2.5 million annual guarantee. Carbon reductions are equivalent to offsetting the emissions of 7,500 automobiles annually.