

# CASE STUDY: ENERGY MANAGEMENT SYSTEM

SYSTEM TYPE: Controls, Scheduling, Sequencing

## PROJECT FINANCIALS

- Total Turnkey Installed Cost: \$ 156,642
- Annual Energy Cost Savings: \$ 36,651
- Annual O & M Cost Savings: \$ 20,000
- Simple Energy Funded Capital Payback: 2.76 years
- Average Project IRR: 34%
- CO2 Equivalent Reduction: N/A

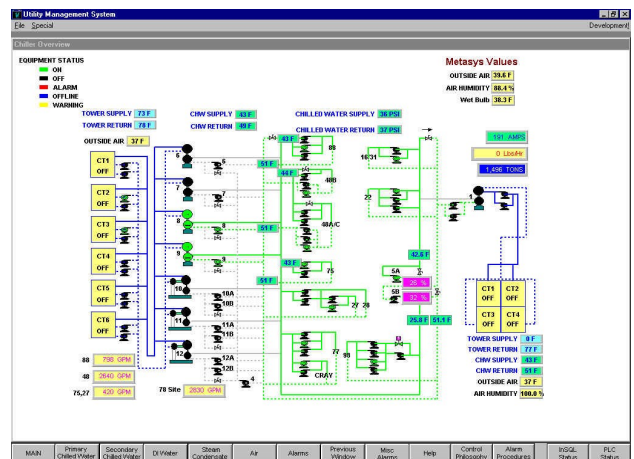
## MANUFACTURING Facility Installs State of the Art Energy Management System—Saves \$ 36,651 in Annual Energy Savings Plus \$ 20,000 Annually in O&M Costs

### Facility Description

- Manufacturing facility
- Assembly areas
- Warehouse areas
- Administrative offices

### System Description

- No Centralized control
- Manual central plant control
- Local AHU & RTU control
- Local compressed air system control



### System Opportunities

- The facility required space conditioning for its production areas in addition to office areas
- The facility utilized a combination of rooftop HVAC units and chilled water AHUs
- The RTU and AHU units were individually controlled and the central plant was manually controlled
- Lack of controls resulted in the building having difficulty maintaining steady temperatures
- Lack of ability to match HVAC to production schedules

### Project Benefits

- New state of the art Energy Management System
- Optimal control of HVAC equipment
- Monitoring of equipment usage and operating parameters
- Reduction in energy usage and cost
- Reduction in the O&M costs

## Project Summary

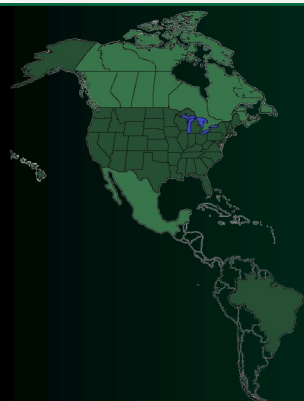
<b>Energy Management System</b>	<ul style="list-style-type: none"> <li>• Installed DDC control system</li> <li>• Interfaced/ control RTUs</li> <li>• Interfaced/control AHUs</li> <li>• Controlled operation of central plant equipment</li> <li>• Optimized scheduling and sequencing of equipment for optimal efficiency and operation</li> <li>• Controlled and sequenced air compressors</li> <li>• Monitored equipment operating parameters to provide better scheduling of O&amp;M to lower cost</li> </ul>
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## Financial Data

<b>Investment</b>	\$ 156,642
<b>Annual Energy Savings</b>	\$ 36,651
<b>Annual O &amp; M Savings</b>	\$ 20,000
<b>CO2 Equivalent Reduction</b>	N/A
<b>Project IRR</b>	34%
<b>Payback Period</b>	2.76 Years



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