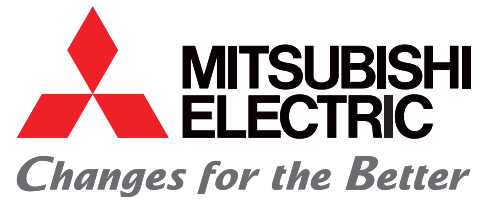




for a greener tomorrow



Versatech and Mitsubishi Electric partner to offer innovative energy management solutions, with recent project providing customer with immediate six figure savings

Case Study



Solution

- Q Series PLCs
- MC Works Software with AX Analytics
- EcoWebServer III
- MES Interface IT System
- Networkable Power Meters

Versatech Benefits

- Turn-key energy management solutions
- Specialized expertise
- Full portfolio of products

Mitsubishi Electric Value-added Advantages

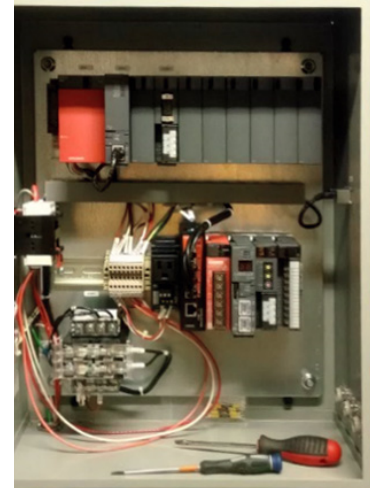
- “Server-less” data storage with web-based visualization capabilities
- Consolidate multiple vendor equipment without a PC
- Powerful, highly customizable analytical software

BACKGROUND

Versatech, LLC of Effingham, Illinois is a multi-faceted engineering company continually expanding their offerings to meet the needs of their customers, with automation, robotics, work holding, machining, contract manufacturing and lean manufacturing consulting among the organization’s particular strengths. Recently, leveraging their diverse knowledge and multi-industry customer base, Versatech has been meeting an escalating customer need by offering energy management solutions among their data management solutions, providing significant cost savings for large industrial facilities. This innovative Versatech division focuses on delivering a full turn-key energy management solution, from performing ASHRAE energy assessments, to in-depth analysis and reporting, to identifying specific energy conservation opportunities, to designing, integrating and installing energy saving hardware and software solutions that deliver both immediate and ongoing savings. Versatech’s energy management services are supported by the products and expertise of Mitsubishi Electric, for whom they are an Authorized System Integrator.

“Energy management is not a complex concept — you collect your data, establish a baseline, and act on the information to effectively save energy and save money. Mitsubishi products help give us the capability to do that very successfully for our clients — they’re excellent products at very reasonable prices.”

– Greg Gillespie, Data Program Manager Versatech



The Versatech/Mitsubishi Energy Management Systems Partnership

Energy costs — water, air, gas, electric and steam — represent a large portion of the operating expenditures for most manufacturing facilities. For many, they also represent a huge opportunity. In fact, the U.S. Department of Energy estimates that energy management efforts at large American manufacturers have saved some \$2.4 billion in the past five years alone. And, they say, that figure comes from facilities representing only a tiny fraction of the country’s overall manufacturing energy footprint — meaning that there are likely savings representing tens of billions of dollars more yet to be achieved through smart energy management solutions.

“Many times, companies assume that high energy costs are just a cost of doing business and that not much can be done to reduce them. This is simply not the case,” explained Greg Gillespie, Data Program Manager. “Measuring energy costs is the first step in reducing them, and that’s where Versatech and Mitsubishi Electric come in.”

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As leader of Versatech's Energy Management Solutions offering, Gillespie is working to open the eyes of manufacturers to the significant results that can be achieved. Take the recent example of lawn equipment manufacturer Agri-Fab. Intrigued by a presentation given by Gillespie, they engaged his team to perform an energy assessment in their plant, and then, based on the resulting suggestions, embarked on a program which saw Versatech install a customized Energy Management System at the location to monitor equipment including several ovens and air compressors.

From their broad portfolio of Mitsubishi Electric energy management solutions products, Versatech specified components including the high-speed, high-accuracy Q-series programmable logic controller, and the EcoWebServer III, an easy-to-use, exceptionally scalable Mitsubishi Electric solution that collects energy consumption data from throughout the plant, and then allows snapshots and trend data to be viewed visually in graph form in real time, 24/7 from anywhere using a standard web browser — eliminating the need for a server and related management and maintenance costs.

In addition, since Agri-Fab did not yet have any networked metering devices — and getting existing meters onto the network was cost-prohibitive — Versatech installed several networkable meters, including four Mitsubishi Electric meters, enabling the capturing and storage of usage information over time.

Shortly after Versatech installed the system, they received a puzzled call from Agri-Fab. The energy management system, they said, was malfunctioning, generating some unlikely consumption data. Or so they thought at first.

"We investigated right away and found that the energy management system was actually operating just fine — it just unexpectedly discovered a significant energy drain that probably wouldn't have been found otherwise," explained Gillespie.

The energy drain was from Agri-Fab's paint curing ovens, a big consumer of energy. Evidently, after a recent maintenance procedure they weren't set properly and as a result were starting up for brief periods after-hours when no one was likely to be in the facility — and wasting significant amounts of energy.

It was an easy fix — one that almost immediately led to avoided annual energy costs of nearly \$70,000 for Agri-Fab.

But that was only the beginning of the fast and easy energy savings generated simply by identifying the hidden "low hanging fruit." For example, around the same time, an anomaly was discovered in air compressor usage at the plant. The issue was addressed — leading to another potential \$50,000 in avoidance of energy costs annually.

"Similarly, there was probably little chance of the air compressor issue being discovered without a system like this in place," noted Gillespie.

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With a significant estimated typical ROI already achieved, Gillespie believes that there is much more savings yet to come, with Agri-Fab continuing to monitor energy consumption over time.

"This is a continuous improvement tool, allowing customers to benchmark, monitor and continue to reduce their energy costs," he explained. "We provide training so that our customers can be self-sufficient in getting the most out of it, and we are also always at their service to provide any additional support that they might need."

Gillespie notes that other powerful parts of the Mitsubishi Electric energy management solution product line carried by Versatech include the MC Works Software with Analytics package, which gives users highly customizable dashboards and reporting capabilities, as well as the MESInterface IT, a unique tool that allows the consolidation of data from nearly any brand of network equipment into a single database — without the need for a PC.

"It's a great product," said Gillespie. "The integration is fast and seamless, with nearly no coding involved. And you avoid the hassles of a PC — you alleviate the need for firmware upgrades and the threat of a computer crash or of the computer choking on the dataflow. Once the MES is installed it just sits in the rack and does its job very, very well. It's the most robust solution out there."

No matter what the configuration of the customized solution, Gillespie notes that the most important step is to start measuring so that sources of wasted energy can be identified and addressed.

"Energy management is not a complex concept — you collect your data, establish a baseline, and act on the information to effectively save energy and save money," he explained. "Mitsubishi products help give us the capability to do that very successfully for our clients — they're excellent products at very reasonable prices."