

Power Distribution Solutions

Cost Allocation Solution

Automotive

Challenge

A large automotive customer in Michigan was getting push back from internal departments about being charged for energy usage unfairly. The facility had been charged with trying to find ways to reduce and allocate energy costs. There were four internal businesses/departments sharing the electrical utility bill evenly, but it was clear some departments used very little of the actual energy and wanted to be billed correctly for the energy it used. Management was also looking for ways to reduce energy costs and was asking each department to find ways to reduce energy. This customer had realized that knowledge is “power” and that without knowing when and where energy was being used, it would be difficult to implement any solutions.

The company was dividing the electrical bill up evenly between four departments. The research & engineering (R&E) department knew that they did not use nearly as much energy as any of the remaining three groups (engine, transmission, assembly) and wanted help. They came to Siemens to find out how they could accurately measure their energy consumption so they could prove their usage and verify consumption. This would help them to be billed properly, and show immediate reduction in energy usage for their department.

Solution

Siemens conducted an audit of existing equipment and determined that the R&E group could easily gain access to their energy usage using a Siemens power monitoring solution.

Power was being supplied by a Siemens substation equipped with a power quality meter on the main, and communicating ETU trip units on the feeder breakers. The power quality meter not only provided real time energy / power quality data, but also acted as a gateway for the down stream communicating trip units on all the feeders. The Siemens power quality meter also provided “On Board” web pages, allowing the customer to easily view “Real Time Energy Data” from any PC on their network via a web browser.

The customer wanted more than that capability, they needed to view the data from the feeder breakers on the substation so as to provide sub billing information to the facility/energy manager. Siemens provided the advanced web based WinPM.Net software to organize/manage all of the power meter and feeder breaker information. This data was displayed on the main computer in the R&E office and visible from any PC on the plants ethernet network via internet explorer. Additional sub billing reports were also supplied showing the energy usage by substation and feeder breakers.

Results

The Siemens WinPM.Net software solution helped them manage their energy consumption and verify that they were actually using only 5% of the facilities \$100K energy bill. This put more emphasis on the other three departments to look for greater energy savings. Siemens is now in the process of adding energy monitoring to the substations that supply power to the other three departments, to help them find their largest energy users on the plant floor and reduce energy costs by limiting energy usage, demand and power factor charges.



Siemens Solution for Industrial

Siemens is the world's leader in providing totally integrated solutions to enhance safety, reliability and flexibility in the automotive plants. Integrated power and factory automation solutions improve productivity and, ultimately, the competitiveness of your organization in the global market.

Reliable and precise monitoring of electrical power systems

Siemens Power Distribution Solutions recognizes that high performance facilities make for high performance business. Energy is the lifeline of your business, and better efficiency and sustainability can have a large positive impact on your bottom line.

The Energy Management and Control Systems from Siemens provide a complete enterprise solution that can help you manage the energy costs

and availability of your business. With our advanced meters and controls, you can be sure to use only the energy you need, when you need it.

Smart devices of power distribution make plant wide integration easy resulting in the timely and efficient diagnosis of problems before a plant or process shut down. Additionally, Siemens products share a common global technology platform, which enable organizations to operate and implement branches worldwide.

Siemens Power Distribution Solutions can also contribute toward achieving LEED® certification and provides the needed energy metering data for federal/local government energy reductions programs.

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