



Information Saves \$100K Annually Plus \$1 Million Cost Avoidance

At a metal manufacturing plant in northeast United States, a PowerLogic® system has been effectively meeting the company's needs for the past ten years. A manufacturer of small metal parts used on integrated circuits as well as bimetallic materials used in thermocouples and switches, the plant's system began with CM100/200 monitors. Networked via "blue hose" to the System Manager (SMS) software with Interactive Graphics (GFX), these monitors allowed viewing and automatic control through a Sy/Max PLC. During the next several years, the system was expanded to include all types of PowerLogic Circuit Monitors, Power Meters, Ethernet gateways and upgrades to SMS.



Consisting of approximately 20 buildings and out-facilities with numerous furnaces and metal forming and conditioning equipment, the large manufacturing facility had had a very poor power factor that was subject to change during different production runs. The underlying premise for the original power monitoring installation was to better control and maintain the large site's power factor. Through the use of the PowerLogic system, this plant was able to improve and control the power factor, avoiding more than \$100,000 per year in power-factor penalties from the utility company.

Their PowerLogic system has easily paid for itself, but its usefulness doesn't end here. When a 1500 KVA substation that was well past its useful life began experiencing maintenance problems, a projected \$1 million replacement cost of the substation (and building changes required to accommodate it), was assumed to be a necessity.

The implications of this colossal purchase set the engineer to researching better options. The engineer realized he could use the historical data of the PowerLogic system to analyze the KVA demand and average current for the faltering substation and other substations on the property. After reviewing the data, he was able to make a strong case to the management team for redirecting the load rather than replacing the substation. His research of nearly a year's worth of data demonstrated there was sufficient capacity in three other 1500 KVA substations



of identical voltage to handle the load. Through all seasonal changes, the load on these substations had never exceeded 500 KVA.

Armed with this invaluable information, the managers of plant were able to halt plans for a major capital expense and initiate a more minor project to switch the loads to the other substations.

Now in its tenth year of service, the usefulness of the plant's PowerLogic system is still relevant and evolving.

For example, the plant relies on its PowerLogic power monitoring system for internal cost allocation. Within the organization, there are many different departments and groups that design, develop and manufacture a vast array of products. Here, as in the rest of today's business environment, change is truly a constant. Thanks to their PowerLogic system, when part of the facility was restructured and sold off to another company, they were able to accurately bill the other organization for the electricity used. In addition, with more than 50 internal cost centers, the facilities personnel sub-bill individual departments for the energy each group uses. With changes in the floor space and configuration of the office for these departments, the bill can be adjusted to reflect actual costs.

The payback for the initial purchase of a PowerLogic system for this metal manufacturing plant in the northeast is clearly immeasurable.