

Chemical Manufacturer Controls Expensive Demand Charges

A chemical-manufacturing customer participates in a Time of Use/Dispatch Power rate schedule with its utility. The rate is dependent on the time of day and the dispatch level (demand) signal the utility sends them via a dedicated computer. Once a dispatch level is received, a person manually inputs the dispatch level throughout the plant through a P.A. system and hopefully department managers take appropriate actions to curtail power use to avoid expensive demand charges.



Only one person in the plant knew what the dispatch level meant. What would happen if he was not available to download information on the plantwide network? Even when he was available, department managers did not know their actual energy usage and each believed their process was the most critical. The customer needed a way to systematically notify each department to reduce their usage and let them know how much reduction was needed depending on the dispatch level.

The chemical manufacturer's POWERLOGIC system consists of System Manager Software, a CM2450 Circuit Monitor in the control room and a CM2350 Circuit Monitor for each manufacturing department.

When the operator receives a dispatch level on the computer, he selects one of five preset options, and the CM2450 is programmed to automatically download new setpoints to each CM2350. The setpoint illuminates a red light when the departments need to go into the peak shaving mode. The priorities are preset and all the personnel just responds to the red light.

Their POWERLOGIC system provided a simple solution for avoiding expensive demand charges. Because of this capability they are now considering buying two engine generators to use during peak shaving. Payback on the generators is estimated to be less than one year.

Additionally, accounting is using system data to do departmental costing. Data from each CM2350 Circuit Monitor in the departments makes the needed information readily available to download into the accounting system for cost allocation.