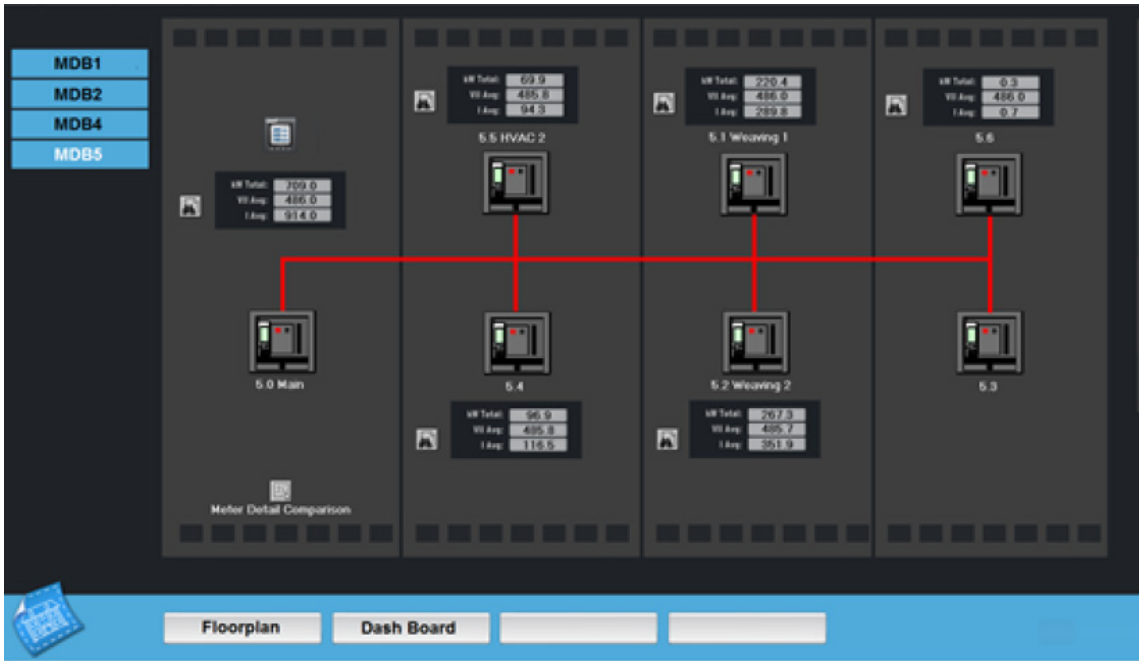
GLOBAL POWER TECHNOLOGIES

Georgia Manufacturer Needs Real-Time Electrical Billing by Operating Department. GPT Makes it Happen.

Imagine you're in charge of the Chatsworth, Georgia, operations for an international manufacturer of high-grade backing for indoor carpeting and artificial turf. In a typical month your employees produce approximately 26,000 square meters of backing, or 6 acres.

Your electric bill is huge. That's a given in a business using giant extruding, weaving and spinning machines. What's troubling you, however, is that your monthly bill doesn't break down the power consumption in various departments. Meters can tell you that the extrusion process used roughly 25 percent of the monthly total. Similarly, through metering you can apportion usage to the other departments. But that's not good enough.



Typical distribution panel

First of all, Georgia Power provides real-time pricing, so the actual cost of your kilowatts will depend on when they were used. That variation can be as much as 140 percent in a given day.

Matching up the usage with the appropriate rates during each hour of the day is impractical as it would be a manual, labor-intensive process.

Because overall usage is so expensive, an automated system would save money. Better yet, more sophisticated metering and monitoring would tell you where money could be saved through more precise scheduling of operations.

That's when you — or, in this case, the customer — call in Global Power Technologies (GPT).

It was a challenging assignment. First, software had to be written that would capture the hourly rate changes from Georgia Power. Then, the metering infrastructure had to be installed to record usage in the eight departments, from extrusion through transportation. Installation could only be done on a weekend to minimize the disruption of operations.

Next, the system had to be tested. While the previous method of determining usage and costs by department was not dependably accurate, this refit had to be. Once the system was installed GPT had to write software that would provide accurate usage and performance data to each department.

The results were beyond expectations. Awareness of various power loads at different times enables the customer to adjust operations for maximum efficiency. The automated system produces an instantly available dashboard of energy trends to further improve performance.