AUTOMATION AND POWER JOINED IN ORLANDO

ABB event acknowledges economy, focuses on efficiency

Despite economic uncertainties and tight travel budgets, more than 3,300 ABB representatives, partners and users met March 23-25 in Orlando, Fla., to share practices, identify trends and check out 72,000 sq. ft. of exhibits designed to help them make the most of automation and power systems.

The consensus is that the current economic climate is only a temporary impediment and distraction from pursuing the rich potentials in optimizing production, increasing reliability and improving energy efficiency that can come from integrating process and electric power monitoring and control.

Among the more than 500 presentations was “Electrical Integration: A Strategy for Achieving Unified Operations” by Stefan Bollmeyer, ABB fieldbus product manager for its System 800xA.

“Electrical integration is the next frontier in driving productivity, increasing safety and reducing costs,” Bollmeyer said. “It enables users to achieve total plant visualization so they can make decisions based on dollars and cents, and not just on temperatures and voltages.” Bollmeyer said. “This also means they maximize production by reducing the impact of an unreliable power supply, as well as reduce energy costs by conducting peak shaving.”

“Electrical integration also allows users to reduce operational costs by unifying their operations environment, performing condition-driven maintenance, reducing spares and training, and establishing cross-discipline cooperation. They further can reduce investment costs by minimizing cabling and engineering, by implementing an optimized network design and by establishing asset management for their electrical subsystems.”

Despite these potential gains, Bollmeyer added that several persistent barriers continue to block electrical integration. “In the past, electrical integration was hampered by a lack of communication standards and architectural design, high project execution and commissioning costs, and high life cycle costs,” he said. “Organizational barriers among departments within plants and suppliers also have hindered integration, and these mind-set-based barriers often are harder to deal with than the technical challenges to integration. Many users have their own department and kingdoms, and they want them to stay just as they are.”

To help process control and power staffs cooperate on achieving better electrical integration, ABB recommends they adopt a unified integration method based on a single system environment, use a fieldbus network to handle electrification control and management, and use the IEC 61850 standard to tie together process instrumentation, process electrification and power distribution networks.

For example, he reported that using IEC 61850 to integrate MV motor controls gives users several benefits, including fewer cables, easier installation, higher performance, alarm and events from devices, and improved diagnostics.

In his presentation on the company’s future direction, Peter Terwiesch, ABB chief technology officer, outlined how ABB will continue to help industry save energy and improve productivity. “Across all industries, 80% of energy is lost between generation and use. It’s a leaky pipe, as it were,” Terwiesch said.