



ABB and CTE “Power” Indianapolis

When Citizen's Thermal Energy (CTE) upgraded its control system, ABB's challenge was to complete the installation without disrupting service to the utility's customers. Unwavering customer focus and good planning, combined with Industrial IT technology, got the job done.

Client: Citizen's Thermal Energy
Location: Indianapolis, Indiana
Scope of Work: Control System upgrade to ABB Industrial IT

“I personally felt that ABB did a good job at fulfilling their word. They worked very hard at seeing that what they said they would do would get produced. ABB listened well and gained a good understanding of what we needed. And they came up with solutions that directly responded to these needs.”

Mark Vogler
Manager of Engineering
Citizen's Thermal Energy



Citizens Thermal Energy required an upgrade to its control system that would combine two control loops and integrate their burner management system on their gas boilers into their existing system. They wished to do this within an open architecture that would allow freer movement of plant information across the loops.

ABB's challenge was to provide what CTE required, and to complete the installation without disrupting service to the utility's customers. Unwavering customer focus and good planning, combined with the latest ABB technology, was the solution.

Background

Citizen's Thermal Energy (CTE) is the second largest steam energy producer in the U.S. The utility sends out some 8 billion pounds of steam a year from a single plant, which also powers a chilled-water facility and a trash incineration facility.

CTE considered several different companies for the upgrade of their control system. Before making a decision, the utility sent a team to ABB's Industrial IT Demo Center in Wickliffe, Ohio (USA), to review different control systems in the test stations.

Proven Solutions Based on Industry Knowledge and Experience

ABB then arranged a site tour of a user installation in a power station in Kentucky, so the CTE managers could get a first-hand look at a similar system. “This gave us a comfort level that the system could do what we needed it to do,” said CTE's Manager of Engineering, Mark Vogler.

The Solution

CTE chose to upgrade their NET 90 DCS system that ABB had installed 15 years ago with ABB's Industrial IT control system technology. The upgrade combined two Symphony control loops and a third-party control loop into a single system using ABB's Operate ITTM Process Portal.



Optimizing Plant Asset Availability and Performance

The open control system environment created by ABB's Operate IT™ software allows CTE to operate several units from a single control room. This streamlined set-up is highly efficient: the user can easily move data across different areas of the business and constantly monitor operations from various computer screens.

Reducing Time to Decision and Action

Additionally, the ability to go from one screen to the other with a single mouse click allows the operator to work faster. This is particularly important during emergencies, when seconds count.

"Our load can swing 30 percent of total," noted CTE Plant Manager, Bob Purdue. "When you're talking about 1.5 million pounds of peak load swinging 30 percent, it's pretty tremendous. It can and does happen. Daily? Not necessarily, but it can happen routinely. The ABB equipment is tuned to handle those types of swings."

The Goal During Upgrade: Seamless Service to CTE Customers

"There was concern that we would have to perhaps idle half the plant at a time while we tied in to the loops" said Vogler.

"With the help of ABB's technicians, pairing up with our technicians in-house, they found a way to combine the loops without ever having a unit outage. We never took a unit out for the sake of making this upgrade project happen."

Kent Wilder, Service Area Manager, was part of the ABB team, along with Service Engineer Dean Thomas and Regional Technical Advisor Jerry Pike. "We worked hard to prepare the customer for this upgrade," Wilder said. "We understood their needs. We got them involved up front – designing the graphics and planning the alarming and security strategies. They were totally involved and vested in the project."

The Power of Listening

Vogler said that the time ABB spent training CTE operators before the upgrade was crucial. But the critical success factor in the CTE project, according to Vogler, was ABB's ability to listen. "ABB was very open to our concerns," he pointed out. "They listened and gained a good understanding of what we needed. And they came up with solutions that directly responded to these needs. We hope to continue our relationship with ABB so we can further improve our processes and keep pace with technology."



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Why Choose ABB?

- Open environment
- Reduced time to decision and action
- Optimized plant asset availability and performance
- Investment enhancement through evolution
- Proven solutions based on industry knowledge and experience

The good work during upgrade continues to pay off. "I've returned to the site for scheduled visits," Dean Thomas said, "and the system is operating as well as on the first day of installation."

Looking Ahead

"We hope to maintain our relationship with ABB. We'd like to work toward continuing to optimize our process, and to staying ahead of technology as it changes," said Vogler.

Purdue added: "I look forward, as we have in the past fifteen years, to fifteen more years of working hand-in-hand with the ABB personnel."

Investment Enhancement through Evolution to Industrial IT

ABB control system users all over the world improve performance and lower life cycle costs by building upon their existing ABB systems. Add the technological advances of ABB's Industrial IT offerings to get even more return from the systems you have.

ABB is dedicated to preserving the process security and value of your control system investment. We provide the industry's most comprehensive system life cycle and evolution programs to enhance your overall functionality and productivity, along with superior ongoing product support and service to keep your system operating at peak performance levels.

For more information on ABB control systems, call us at: 1.800.922.2475 (or if not in the US: +1 585.273.6417), email us at: industrialitsolutions@us.abb.com, or log on to: www.abb.com/controlsystems.

For more information on how ABB's Industrial IT technology can be employed to solve your power control issues, visit us at: www.abb.com/powergeneration.