



## Ambridge Water Authority

Ambridge, Pennsylvania

A municipal water authority pumping over 4 million gallons of water per day to customers in Western Pennsylvania

### Challenge

During a time of increasing focus on customer service, service reliability, environmental regulation and cost containment, the Ambridge Water Authority was faced with operating an aging infrastructure built in the 1950's and limited capital resources. Of immediate concern were potential DEP regulations regarding disposal of treated water and the ability to run the plant in the event of an extended power outage.

### OnDemand Solution

OnDemand created an innovative, turnkey solution to the Ambridge Water Authority's dilemma. Through a comprehensive professional services program, OnDemand enabled the Authority to upgrade their aging mechanical system, improve water system operational efficiencies, mitigate the threat of DEP fines, and provide the flexibility to restore power during extended outages. Furthermore, through an energy-efficient design, the Authority was able to minimize their net expenditure on the project. The program included a team of professionals possessing the technical expertise to provide system design, engineering and start-to-finish project management.

### The Bottom Line

OnDemand's turnkey solution upgraded the Authority's system while eliminating a DEP compliance issue, enhanced system reliability and enabled savings of \$34,800 annually. Contract features included:

- Installation of energy-efficient mechanical equipment
- Back-up emergency power supply capabilities
- Installation of an automated PLC-controlled system
- E-commerce procurement of natural gas and electricity
- Utility bill auditing



*"We liked the entire program from the beginning. Not only were we able to upgrade our customer service level, but now OnDemand has enabled us to take control of our energy and utility costs."*

Mary Hrotic

General Manager,

Ambridge Water Authority

### Watch Those Energy Problems Dry Up

The Ambridge Water Authority's pumping station was relying on vertical turbine pumps to transport raw water from its reservoir to its water treatment facility. The water flowing to the facility also ran a turbine generator that powered other parts of the plant. The system had no variable flow capabilities. Therefore, too much water ended up being chemically treated as it flowed through the system. The Authority was forced to dump 300,000 gallons of this excess treated water into the Ohio River each day.

Over the years, the Authority's 50-year-old delivery system had deteriorated in efficiency. In addition, it lacked back-up power capabilities to provide the required level of service for their customers. In fact, when the plant lost its 2,300-volt circuit during a tornado, it came within hours of running out of water for its customers.

In light of these issues, the Authority was challenged with finding a solution. Enter OnDemand, a leading energy services provider. OnDemand created a turnkey solution that included new energy-efficient equipment and a comprehensive energy services program.

The plan called for installing a super-efficient, 250-horsepower pump/motor combination using a variable-frequency drive system for flow control and energy efficiency. Control was automated using a PLC-controlled system with remote communications capability. To protect against unexpected and prolonged power losses, emergency back-up power capabilities were provided. OnDemand's unique bundled energy services program also included e-commerce procurement of natural gas and electricity and utility bill auditing.

### Results

The new system eliminated the need to dump water, thereby reducing the possibility of future fines by the DEP. It automated and improved controls, and reduced maintenance and energy costs. Energy savings alone were calculated to be a whopping \$34,800 annually. "The entire program was designed to be energy-wise," said Mary Hrotic, General Manager of the Authority. "We couldn't be more pleased with the results!"

*"By outsourcing this program to OnDemand, we were able to focus on our core business which is serving our customers. And most importantly, OnDemand has enabled the Authority to get the most for our energy dollar."*

*Mary Hrotic*

*General Manager,*

*Ambridge Water Authority*

### **Ambridge Water Authority Board of Directors**

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