Town of Amherst Amherst, Massachusetts

# Case Study WATER UTILITY—PUMP STATION

# **AT A GLANCE**

#### **CUSTOMER**

Town of Amherst–Pump #4 Well House

LOCATION Amherst, Massachusetts

# CHALLENGE

Prevent water system failures leading to water shortages during an outage

# **SOLUTIONS**

- KOHLER<sub>®</sub> 350REOZJB generator
- KOHLER Decision-Maker。 550 controller
- KOHLER KSS-AMTB-0400S automatic transfer switch
- KOHLER block heater

# **PRIMARY CHOICE FACTORS**

KOHLER brand's reputation for quality and reliability, and prior experience with KOHLER generators



The Kohler 350REOZJB at the Pump #4 Well House in Amherst, Massachusetts

#### BACKGROUND

Amherst is a college town in Hampshire County, Massachusetts, with a population of 37,819 residents. It is home to Amherst College, Hampshire College, and the University of Massachusetts at Amherst. Notable historical figures that lived in Amherst include poets, Emily Dickinson and Robert Frost, and Noah Webster, who wrote *An American Dictionary of the English Language*.

Though the local population is relatively small, the influx of students puts a significant load on the town's infrastructure, including the water system. A power outage could be catastrophic because it could lead to water shortages which, in turn, could negatively affect the health of residents and students alike.

#### **CHALLENGE**

Facing many standby power solutions upgrade and replacement projects over the next few years, the Amherst Maintenance and Electrical Departments wanted to make the entire procurement process as efficient as possible while ensuring a competitive price. They also wanted emergency standby products that were reliable, given extreme winter conditions.





Kohler's KSS-AMTB-0400S automatic transfer switch for Pump #4 Well House in the Town of Amherst



Pump #4 Well House in the Town of Amherst

The solution for the Town of Amherst's Pump #4 Well House includes the Kohler 350REOZJB diesel generator with a KOHLER Decision-Maker 550 controller. The solution also includes a **KOHLER KSS-AMTB-0400S** open-transition transfer switch. A UL 2200-listed steel weather enclosure, featuring fade-, scratch-, and corrosion-resistant KOHLER Power Armor Plus automotivegrade textured finish, protects the generator from the elments. KOHLER Power has delivered energy solutions for markets worldwide since 1920. For more information, visit KOHLERPOWER.com



Another primary challenge associated with the Pump #4 Well House project was sizing the generator correctly. The 200-hp pump would require significant standby power for continuous operation. For guidance, the Town of Amherst turned to Sean Hall, Sales Engineer, at Kinsley Power Systems, Kohler's authorized distributor for the Northeast. Founded in 1964 and headquartered in East Granby, Connecticut, Kinsley Power Systems is an energy solutions provider specializing in working collaboratively with customers to ensure project success. The Town of Amherst has relied on Kinsley Power Systems for other projects.

#### SOLUTION

The emergency standby solution for the pump house site includes a KOHLER® 350REOZJB generator featuring the KOHLER pilot-excited, permanentmagnet alternator for excellent voltage response and short-circuit capability. The diesel-fueled generator also features a KOHLER Decision-Maker. 550 controller for one-source system integration and remote communication. The controller provides metering, control, and diagnostics for the generator and features a digital display and keypad for easy access to data. An integrated voltage regulator maintains consistent voltage output and a built-in alternatoroverload-protection circuit ensures safe generator operation.

The solution also features a KOHLER KSS-AMTB-0400S open-transition, automatic transfer switch, which provides fast, automatic changeovers from grid to generator. It is enclosed in a NEMA 12 enclosure and features front-accessible contacts for easy inspection.

To protect the generator from the elements, the integrated solution also includes a UL 2200-listed, steel weather enclosure, designed to meet a 150mph wind load rating. It also features fade-, scratch-, and corrosion-resistant KOHLER Power Armor Plus<sub>™</sub> automotivegrade textured finish. The enclosure features easily accessible doors and panels to facilitate service. A 2500 W, 90/120 V, 1 Ph block heater and a 10-amp battery charger ensure reliable operation during the winter months.

The generator also features a Kohlermanufactured, 48-hour, UL 142 integral subbase, state-fuel tank with a 1333-gallon capacity. It offers continuous operation until grid power is restored or refueling needed. The tank features Power Armor Plus textured epoxy-based rubberized coating which prevents corrosion. It is also UV-resistant. Both the inner and outer tanks have emergency relief vents. The subbase tank also features an environmentallyfriendly secondary containment tank surrounding the primary tank, meeting state requirements.

To facilitate the procurement process, Hall relied on Kohler as a Sourcewell vendor. Sourcewell is a cooperative purchasing organization for educational, governmental, and nonprofit that makes purchasing more efficient. Amherst's membership to Sourcewell gave full access, via Kinsley Power Systems, to Kohler's complete line of power generation solutions, saving time, reducing administrative costs, controlling product costs, and managing risk. According to Hall, "Sourcewell makes it easy for our customers to feel confident in their purchasing decisions. It offers a streamlined and efficient process for purchasing emergency power solutions and related equipment that has been pre-bid and available with contract pricing" said Hall.

# RESULTS

The integrated emergency standby power solution for the pump house has performed exceptionally well. Amherst's electrical and maintenance staff know from experience they can rely on KOHLER products to perform reliably, every time. Further, Sourcewell helped the town make the entire purchasing process easy and fast.