

POWER PROFILE

Customer: Hinckley Wastewater Treatment Plant

Location:

Hinckey, Ohio

Customer Business Issue:

Standby Power

Solution:

C18 Diesel Generator Set

Cat® Dealer:

Ohio Cat



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POWER NEED

Nestled in a wooded valley about 30 miles south of Cleveland, the Hinckley Wastewater Treatment Plant provides a tranquil setting for ongoing sewage treatment.

Originally constructed in 1976, the inconspicuous plant is set back from Ridge Road, processing an average of 1.7 million gallons of sewage per day. The facility is fed by 50 miles of sewer lines that come from the suburban communities of Brunswick, as well as parts of North Royalton, Strongsville, and Broadview Heights.

“In keeping with the somewhat out-of-the-way nature of our facility, we like to maintain a low profile,” says plant superintendent, Robert Elmerick, adding that he can’t recall an instance where sewage has backed up into the basements of the plant’s customers.

When Ohio Edison notified Hinckley that it planned to remove one of the two utility feeds coming into the plant, it required action to provide necessary backup to the facility.

Prior to the acquisition of a 600 kW Cat® generator, the Hinckley plant had a trailer-mounted generator that was only large enough to run just one of the facility’s raw sewage pumps.

SOLUTION

“We knew we had to institute some type of backup power system, so we talked with several generator companies,” Elmerick said. “We discussed what our power needs were with Mark Gibson at Ohio Cat, and he suggested going through the National Joint Powers Alliance® (NJPA).

NJPA, which has since been renamed Sourcewell, is a public agency serving nearly 50,000 member agencies across the country as a municipal contracting agency. Sourcewell establishes and provides nationally leveraged and competitively solicited purchasing contracts from industry-leading vendors. These cooperative contract opportunities offer both time and money savings for their users by consolidating the efforts of numerous individually prepared solicitations to one national, cooperatively shared process.

“The reason it made sense for us is that we didn’t have to go out for bid,” Elmerick said. “The contract was already done through NJPA. We spec’ed out the Cat generator, and it gave us what we needed. By going with NJPA, it didn’t take us weeks to go through that process. It saved us time and gave us the equipment that we wanted.”

RESULTS

In the spring of 2016, the plant’s stellar performance history was put to the test during a 114-hour unscheduled power outage.

On a Monday evening in March 2016, the Hinckley facility lost incoming power from its utility provider, Ohio Edison. The utility feed was disconnected after 143 homes in the area lost power due to an unspecified mechanical problem.

But the Hinckley plant was prepared, having installed a 600 kW Cat C18 diesel generator set in October 2014 that is capable of providing more than enough power to the entire facility.

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"The Cat generator automatically fired up, the switchgear switched power over, and it ran for nearly five days," Elmerick recalled. "Once they disconnected us, we ran the Cat generator for 114 hours until we could schedule electricians to come in and work on our high voltage equipment and get it back up to snuff.

"And the generator performed great," he said. "All we had to do is add fuel to it, and it ran flawlessly. We never had to phase it, it ran smooth. We just had our fuel supplier come in once a day and fill up our tank."

The C-18 generator set has a 1,000-gallon diesel fuel tank mounted directly underneath the elevated generator enclosure. Running at full load, the genset is specified to run for 24 hours before refueling is necessary. The generator ran at 45 percent of its total capacity during the power outage.

As part of routine testing, Hinckley facility personnel will run the genset under no load once a week for at least an hour. Once a month, staff transfers the generator load to run the plant anywhere from one to four hours.

"We have a key that we can turn on the switchgear that will simulate a power outage," Elmerick says. "We have a countdown of 15 seconds for our generator to fire up, then it comes up to speed and the switchgear transfers the facility load to the C18.

"Our relationship with Ohio Cat has been great," Elmerick adds. "If I have any questions on our C18 generator, I just call up our sales rep and he always answers the question, or he will transfer me to someone who knows the answer. And when we need parts, they have them ready for us that day or the next day.

"In hindsight, it's clear that we made the right choice in purchasing the Cat genset, both from a standpoint of reliability and dealer support."



In the spring of 2016, its Cat® C18 diesel generator set was put to the test when the Hinckley facility experienced a 114-hour unscheduled power outage.