

POWER PROFILE

HOSPITAL MAXIMIZES UPTIME WITH THE EXPERTISE OF A FLEET ADVISOR AND CAT® CONNECT

Location:

Northeastern United States

Solution:

Cat® Connect remote monitoring technology alerts the fleet advisor of potential problems to reduce repair time and costs when a shutdown or failure occurs, maintain a reliable source of cost-effective electric power, and avoid the cost of buying electricity during shutdowns.

WHAT HAPPENED?

A hospital in the northeastern United States uses a Cat® G3520C gas generator to produce electric power. They also recover heat from the exhaust to produce steam for sterilization processes and facility heating, and they capture heat from the jacket water and aftercooler circuits to heat domestic water. In 2015 and 2016, uptime percentage for this generator slipped into the mid-80s, resulting in cost increases that reduced the economics of the installation. To improve uptime and restore economic viability, Caterpillar and the local Cat dealer recommended enrolling the asset in a Cat Connect Service. The unit was previously equipped with Cat Connect Technology, allowing a dedicated fleet advisor to begin tracking performance remotely over a secure network. The fleet advisor is accountable for monitoring operational data, identifying potential problems and working with the dealer to prevent shutdowns and failures. Within the first year of service, five shutdowns were averted, and uptime improved from the mid-80s to an average of more than 90 percent.

WHAT WAS THE UNDERLYING CAUSE?

The big improvement in uptime can be attributed to several factors:

- **Shared commitment.** All parties, including the hospital, dealer and Caterpillar are focused on improving maintenance practices that contribute to unscheduled downtime.
- **Communication and collaboration.** All team members keep each other accountable and well informed through email, phone calls and regular meetings.
- **24/7 tracking.** Cat Connect Technology continuously captures and analyzes critical performance and health data, alerting the fleet advisor when potential problems arise.

- **Expertise.** Fleet advisors have the experience to analyze, interpret and use the data to make informed decisions about operation, maintenance and repairs and can improve generator performance in some instances.
- **Proactive service strategy.** With Cat Connect Services, maintenance can be planned and repairs scheduled before failure to optimize uptime, costs and component life.

WHAT WAS THE VALUE TO THE CUSTOMER?

During the first eight months of service, five shutdowns were prevented and uptime improved by five percentage points. The actual impact on this customer's bottom line has not been revealed. However, assuming the average cost of downtime is \$400 per hour and a five percentage point increase in uptime equates to 438 hours, the value of the additional uptime exceeds \$175,000 (438 x \$400). By optimizing uptime and repairing before failure, the benefits to the hospital include:

- Reducing repair time and costs, which can increase by two times or more when a shutdown or failure has occurred
- Maintaining a reliable source of cost-effective electric power
- Avoiding the cost of buying electricity during shutdowns.

For more information, please visit www.cat.com/catconnect