



icddr,b

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Standby power

> Case History

International Center for Diarrheal Disease, Bangladesh

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Power Generation

Where:

International Center for Diarrheal Disease, Dhaka, Bangladesh

What:

Standby power system using a PowerCommand® 2250 kVA generator and automatic transfer switches from Cummins Power Generation

Purpose:

Provide mission-critical emergency backup power for hospital and research facility, including drug refrigeration equipment

Primary choice factors:

Fourteen years of previous experience with Cummins Power Generation equipment that was reliable and durable

Bangladesh health care facility depends on Cummins Power Generation for mission-critical power

DHAKA, BANGLADESH — The International Center for Diarrheal Disease, Bangladesh (ICDDR,B), known locally as the Cholera Hospital, houses a staff of 1,250 multidisciplinary specialists working to deliver lifesaving health care to the impoverished people of Bangladesh. The center's lifesaving mission is beset by numerous challenges, and the stakes are high. Monsoons, polluted waters, bird flu and sweltering temperatures create an ideal environment for deadly diseases that threaten the country's 150 million citizens.

In order to provide nonstop care for the center's patients and to continue its drug research, the facility must have reliable electrical power. For the past 14 years, ICDDR,B has relied on a Cummins Power Generation Inc. 750 kVA standby diesel generator to provide emergency power in the event of a utility failure. It recently turned to Cummins Power Generation again when it needed to modernize and expand the facility and its emergency power supply.



These automatic transfer switches from Cummins Power Generation monitor utility power and connect the generator to the facility's loads when there is an outage.

Local utility power is unreliable

Dhaka's local power utility has not kept pace with the growing demand for electricity, and service has grown increasingly unreliable. For three to seven hours per day the center has had to generate most of its own power because the utility could not supply it. Even as the utility's generating capacity fell behind demand, population growth has increased the demand for medical services. The only solution was for the center to add more on-site electrical generating capacity to meet its growing needs.

ICDDR,B turned to Mir Trading Company, the local distributor for Cummins Power Generation in Bangladesh, for help in designing and installing a new and more powerful on-site power system. "ICDDR,B is the largest medical facility in the country," said Mr. Ziyad Ali, the Mir representative.

"Every day, thousands of lives depend on the hospital's vaccine research and lifesaving medical compounds. These medicines must be refrigerated 24/7, and even a brief loss of electrical power would make the medicines useless," said Ali.

New system provides continuous power

When ICDDR,B recently expanded its physical facility, Mir helped it to select and integrate a PowerCommand 2250 kVA generator, powered by a Cummins QSK60G4 engine. The rugged four-cycle, industrial diesel engine delivers reliable power, low emissions and fast response to load changes in prime and standby power applications. When used for standby power, the new



Enclosed in a sound-attenuated and weather-protected enclosure, the 2250 kVA generator from Cummins Power Generation provides the newly expanded ICDDR,B facility with mission-critical power.

system is rated at 2250 kVA; when providing continuous prime power, the system is rated at 2000 kVA.

The Cummins Power Generation system incorporates automatic transfer switches to control power supplied to three separate buildings in the complex. To provide weather protection and noise control, the 2250 kVA generator is housed in a sound-attenuated enclosure rated at 85 dBA. A 10,000-liter fuel tank was installed in the switchgear room and can power the facility for up to several days before refueling is necessary.

Even old generator has new role

The existing 14-year-old Cummins Power Generation 750 kVA generator was also integrated back into the new system to serve a purely standby role. "Fourteen years of successful reliability, durability and dependability with the existing 750 kVA system convinced the center to place total confidence in Cummins Power Generation when it sought to upgrade capacity for prime and standby power," says Ali.

With the center experiencing nearly nonstop growth, it has plans to install an additional 2000 kVA generator for added generating capacity and to further guarantee its future power supply. ICDDR,B continues to rely on Cummins Power Generation to deliver prime and standby electrical power to safeguard its lifesaving mission — because thousands of impoverished lives hang in the balance.

For more information about integrated standby power systems, contact your local Cummins Power Generation distributor or visit www.cumminspower.com.

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