RUNREADY™

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MISSION CRITICAL

WITH SUPPORT FROM CATERPILLAR AND THE CAT® DEALER NETWORK, RIMCO GOES ALL OUT TO MEET URGENT POWER DEMAND IN PUERTO RICO

As the strongest storm to make landfall in Puerto Rico in 85 years, Hurricane Maria came ashore on September 20 with sustained winds of 155 mph, knocking out power to the entire island. Maria arrived barely two weeks after Hurricane Irma destroyed buildings and left one million people without power.

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As a Category 5 hurricane, Maria completely destroyed Puerto Rico's fragile power grid, leaving all 3.6 million residents without electricity. Three months after the longest blackout in U.S. history, nearly half of the island's residents remained without power from the utility grid.

"I don't think many people in modern times here have seen a Category 5 hurricane—it overtook the entire island," said Philip Faigenblat, president of Marpor Corp. in San Juan, which owns and operates 13 Denny's restaurants in Puerto Rico. "I think it was the strongest storm that we ever experienced—it just toppled the whole island and resulted in failure of the power grid."

But thanks to the tireless efforts of Rimco Cat—the exclusive Cat® dealer for Puerto Rico, Cuba, the U.S. Virgin Islands, the British Virgin Islands, Barbados and other islands of the Eastern Caribbean—critical power needs were met throughout the island at hospitals, pharmaceutical companies, government agencies, data processors, restaurants, hotels and countless others.

"Customers called us with a sense of urgency, and in some cases, desperation," recalls Hector Rivera, rental manager for Rimco. "After the storm, their lives had just changed. This devastating storm was something we had never experienced in Puerto Rico, so first off, our job was to reassure customers that we were a helping hand, and they were not alone in this situation."

The power of Caterpillar

With its retail and rental power inventory depleted by the unprecedented demand for power, Rimco received assistance from Caterpillar—which expedited genset deliveries to the island—as well as the Cat dealer rental power network.

Demonstrating the broad reach of the network, rental power was delivered not only from Cat dealers in the U.S., but also Latin American countries such as Colombia and Panama.

"Caterpillar contacted us immediately to see what we needed for support," said Rimco executive vice president Caroline McConnie. "We had weekly conference

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"RENTAL POWER was very important in this crisis because it enabled us to PROVIDE AN IMMEDIATE RESPONSE TO THE CUSTOMERS."

CAROLINE McCONNIE
Executive Vice President
RIMCO

calls with Caterpillar to see how we were doing on inventory, what we needed, what the situation was with parts, and what they could do to deliver units faster. So that was very valuable to us."

Technicians from Carolina Cat and Barbados arrived to assist with generator maintenance and repair.

"The demand for maintenance personnel increased significantly with Maria, and with the help of Carolina Cat, we were able to fly in technicians to help us deal with the enormous customer demands that we had," said Rimco power systems sales manager Pedro Jimenez. "And that is an attribute the competition cannot match."

As one of the Federal Emergency Management Agency's (FEMA) major suppliers, Caterpillar Defense Products sent 349 rental generator sets to Puerto Rico and the U.S. Virgin Islands, said Brian Rydell, Caterpillar Defense contracts manager.

Meeting critical needs

As an example of the type of service it provided customers on a regular basis following the hurricane, Rimco's rental power division helped a large wholesale beverage distributor select the best backup generator for a refrigerated warehouse facility, providing instruction on how to install and operate the unit.

"The technical aptitude of the technicians who assisted us in installing the generator was excellent," said Eduardo Molina, facility manager for Mendez & Co. in San Juan. "They helped us keep the generator running during the entire emergency, including special holidays—and they even assisted us over the weekend. They were just very good to work with."

Preventive maintenance supervisor Jose Reyes recalls an instance where Rimco technicians were called to remedy a problem with a generator set that wasn't running at an elder care facility at 9 p.m. one evening after the hurricane.

"In an emergency like that, a lot of people depend on you," Reyes says. "We got the generator running, and the older people started to applaud like we were heroes, or something. It made me feel proud because the customer knows they can rely on Rimco in an emergency."

The demand for power in the hurricane-ravaged U.S. commonwealth was unprecedented. From mid-September through the end of December, Rimco sold more than twice as many generator sets compared to all of 2016. Rental power accounted for another 200-plus units, with virtually all of them leased out on extended contracts.

The most popular rental gensets following Hurricane Maria were the Cat XQ20, XQ100, XQ800 and XQ2000.

Customers who were not able to find a solution anywhere else in Puerto Rico were able to find it at Rimco Cat.

"It gave us the opportunity to show the market the difference that a distributor who has been in business for over 35 years can make, backed by a company like Caterpillar," Jimenez said. "In a situation like this, what really made the difference to our customers is

XQ2000 generator set

XQ100 generator set


RIMCO technician

the fact that we had built an infrastructure and a team of people and products that nobody else in this market has."

Maintaining a constant power supply is critical to Neolpharma Puerto Rico, a pharmaceutical company in the central mountain city of Caguas. While the company wasn't able to resume operations until a month after the hurricane, it was still critical to preserve inventory in a climate-controlled environment. Rimco supplied the company with an XQ2000 generator set.

"Having electricity is very critical to run our business," said Geraldo Delgado, facilities manager for Neolpharma. "It was key for our success to protect our product, to help minimize impact on operations and to avoid rejection of pharmaceutical lots.

"So it was critical to have the power available to protect our product onsite during the hurricane and then resume operations as soon as possible afterwards," Delgado said. "We received excellent service from Rimco. There was excellent coordination from their office, and they demonstrated a real sense of urgency to make sure that we had our unit in operation as soon as possible. Thanks to Rimco, everything runs great."

All hands on deck

In the wake of the hurricane, Rimco staff demonstrated a high level of dedication in adverse circumstances to ensure that customers received essential products and services to restore power service or keep it running.

"We had to work 14 to16 hours a day to try to help everyone," said rental power sales consultant Sammy Torres. "We did our best to answer all the calls and provide solutions for our customers' problems."

Rimco provided some invaluable creature comforts to its own staff to enable them to better serve customers. That included an onsite valet laundry service, as well as providing ice for staff to take home, and free lunch on Saturdays. Rimco staff received a discount on small, portable Cat DG Series generator sets, which they were able to take home. The dealer also utilized two Cat generator sets (225 kW and 325 kW) to power its headquarters in San Juan for more than two months after the hurricane.

"Our customers say they prefer to deal with us because of the kind of service we give them," Torres says. "We provide 24-hour delivery on parts. They truly appreciate the response from our parts and service department."

With 650 beds, Auxilio Mutuo is the largest private hospital in San Juan. According to protocol established by FEMA, hospitals receive the highest priority in keeping their standby generators running in a widespread power outage. Auxilio Mutuo has seven standby generator sets that produce a combined total of 10 MW.

"Everything in the hospital depends on having electricity," said utility director Wilson Colon. "We cannot operate this hospital if we don't have power. Rimco was instrumental during those days in which we needed to maintain these machines to run continuously—and they had to run for many days in succession.

"I can tell you that during the entire emergency, we always had two of their technicians here helping us to maintain these gensets and keep them running for 13 straight days," Colon said. "We were able to keep running because the Cat generators are reliable and the design is excellent. "We don't want any other equipment except Cat gensets in our hospital. And the people from Rimco were instrumental in maintaining them, so we are very grateful for their service."

Hurricane Maria put Rimco staff on the line in a dire situation they had never faced before, and they responded like true professionals, Jimenez said.

"Right after Maria, everybody gathered here at the dealership to do whatever had to be done to serve the customers," Jimenez said. "It was the attitude of our people that made the difference."

"We had to deal with customers who were about to lose their businesses, and people who were sick at home that needed power for their medical devices in order to stay alive," Jimenez said.

"We listened to our customers and we stayed calm. We explained to them what alternatives they had, and then we helped them make decisions that were best for each of them."

"With the HELP OF CAROLINA CAT, we were able to fly in technicians to HELP US DEAL with the ENORMOUS CUSTOMER DEMANDS that we had."

PEDRO JIMENEZ
Power Systems Sales Manager
RIMCO

EASY NOW

Jamaican brewer saves on energy costs with CHP plant

As one of Jamaica's leading corporate entities, Red Stripe employs over 300 permanent staff members and produces the iconic Red Stripe beer, which is a best seller in the U.S. and Great Britain.

Under the ownership of global beverage conglomerate Heineken N.V., the Kingston brewery also produces beers enjoyed across the Caribbean, including the Guinness and Heineken brands.

First brewed in 1928 and later perfected to the golden lager it is today, Red Stripe is recognized internationally, receiving the prestigious Monde Selection Gold Medal 11 times for its fine quality and taste.

In 2015, Heineken became the majority shareholder of Red Stripe. This coincided with a move to shift production of Red Stripe from the U.S. back to its headquarters in Kingston, Jamaica. A $17 million investment undertaken by the company two years ago saw production of the internationally acclaimed beer returned to Jamaica after the company had moved the production of its North American sales to Pennsylvania in 2012 through a third-party agreement.

In late 2017, Red Stripe officially launched its new Production Line 8 at its Spanish Town Road plant. Production Line 8 enables Red Stripe to brew enough beer to fill one million bottles each day. The increase is expected to boost sales of Red Stripe on the overseas market. The new line also offers Red Stripe flexibility in labeling and packaging.

CHP increases energy efficiency

Prior to 2013, Red Stripe was paying a very high price for electricity, making it the brewer's second highest input cost after malt—the raw material used to make beer, according to Neil Grant,

former manager of engineering and maintenance.

Management determined that installing a combined heat and power (CHP) system offered the opportunity to improve energy efficiency of the plant, realize significant cost savings and deliver increased environmental sustainability.

In 2013, Red Stripe installed a combined heat and power (CHP) plant as part of this plan.

Two Cat® CG170-16 generator sets supply a combined 2,060 kW, which is 80 percent of Red Stripe's load for the facility.

CHP plants simultaneously generate heat and electricity during the same process, thereby increasing efficiency. By capturing and reusing heat wasted during the conventional production of electricity, the CHP plant offers significant environmental benefits. The system requires less fuel to produce the same amount of energy, which reduces greenhouse gas emissions such as carbon dioxide.

"CHP is a highly efficient way to produce energy, and the technology is both proven and very reliable in achieving significant cost savings, environmental benefits, enhanced energy security and overall efficiency in excess of 80 percent," Grant said.

Cat dealer to the rescue

During the first three years of the plant's operations, Red Stripe used an overseas dealer to service the Cat engines. However, in 2016, Red Stripe encountered a failure with one of the engines in the CHP plant. It turned to IMCA, the local Cat dealer in Jamaica, to provide the necessary technical expertise and service to fix the engine and save the plant.

Prior to this, IMCA was examining ways to expand opportunities in its power systems division, when it learned that several large companies in Jamaica were utilizing CHP systems, said IMCA service manager Ricky Brooks.

"There were people within IMCA who already had experience servicing diesel engines, so they went to Atlanta and received training and were certified in servicing gas engines," Brooks said. "They came back and went straight to work at Red Stripe. And the customer's confidence in us was enhanced based on the level of expertise and guidance we were able to provide."

Jolene Richards, a senior contracts manager at Red Stripe, said she found IMCA easy to deal with.

"We found it very easy to negotiate the terms and conditions of our service contract," Richards said. "IMCA was very receptive to our demands, and especially our tight timelines. We found the team to be very responsive. And the entire negotiating and contracting process was very smooth."

By engaging IMCA to do the repairs and the service on the engine, Red Stripe came out ahead.

"The parts and service from IMCA was 20 to 30 percent cheaper than the overseas supplier," Grant said.

The impact of completing the repair on the CHP plant resulted in a significant savings of $40,000 per month in reducing the electricity import costs from the grid, Grant said, while adding:

"Having the CHP plant really reduces our costs, and helps keep us in business."

"The customer's confidence in us was enhanced based on the level of expertise and guidance we were able to provide."

RICKY BROOKS
Service Manager
IMCA CAT, Jamaica

CUSTOMER PROFILE

Red Stripe Beer

Location: Kingston, Jamaica

Application: Combined heat and power (CHP) for beverage plant

Cat® Equipment: CG170-16 gas generator sets (2)

RENTAL POWER

KEY GENERATOR SET FEATURES TO SPECIFY

Today, backup power plays a critical role in recovery from all manner of disasters. Rental generator sets of all sizes can help sustain facilities that safeguard public health, safety and welfare, even through extended utility outages. During disaster recovery, rental power can bring life back to schools, stores, offices, factories and homes, while rebuilding moves forward and the utility restores the grid.

Especially in the early stages, the speed of recovery depends on how well you have planned for permanent or rental emergency power. Consider the following when developing a plan for rental power:

- **Sound-attenuation:** You'll need quiet, sound-attenuated generator sets, if your facility is close to homes or other businesses.
- **Auto start/stop connections:** This is a critical feature if you're using the rental generator sets to back up permanent standby units. Auto start/stop automatically starts a rental generator if a standby unit goes down.
- **Distribution panel labeling:** This helps inexperienced operators safely identify output voltages.
- **Radiator, exhaust discharge:** Some generator sets feature vertical radiator and exhaust systems to direct heat and exhaust gases up and away from people and buildings. These features are important in populated or high traffic areas.
- **Electronic governors:** Specify these if you have critical loads that cannot tolerate fluctuations in electrical frequency. Examples include computers, motor-driven equipment and other machines backed up by Uninterruptible Power Supply (UPS) systems.
- **Output bus bars:** Bus bars should be spaced to allow for multiple output cable hookups. This lets you run several pieces of equipment off one rental generator set.
- **Fuel capacity:** Check the fuel capacity and consumption rate to determine how many tanks of fuel you will need to get you through your rental period. Generator sets should operate at least eight hours without refueling.
- **Fuel priming pump:** This facilitates easier starts after transport.
- **Charging alternator:** This ensures batteries are charging when units are operating. Note: An outside power source is required for standby generator sets, if the unit is equipped with battery chargers and/or space heaters and jacket water heaters.
- **Sight gauges:** Properly positioned sight gauges for fuel and other critical fluids speed up spot-checking, letting your staff spend more time on other matters.
- **Security:** Generator sets should be virtually tamperproof. Look for lockable doors, oil/water drains mounted inside the enclosure, and hidden exterior fuel drains. All connections, such as output bus bars, should be covered.

Your rental generator sets are only as reliable as the supplier who backs them. In developing an emergency response plan, our dealership has the equipment you need, and a staff qualified to help you plan properly and service the rental power units.

Contact the rental power experts at our dealership for assistance as you develop your emergency power plan.

HARNESSING THE POWER

CHP PLAYS KEY ROLE IN PEPSICO'S GREEN INITIATIVE

In 2006, PepsiCo made a full-on commitment to sustainability when it unveiled its Performance with Purpose initiative. Harnessing the power of its global scale, the iconic food and beverage company outlined far-reaching goals to make healthier food and curb its environmental footprint, resulting in savings of $600 million between 2011 and 2015.

Two years ago, PepsiCo re-upped its sustainability goals, which include improving water use efficiency by 25 percent by 2025 and reducing greenhouse gas emissions by 20 percent by 2030.

As Director of Sustainability for PepsiCo's North American beverage operations, Andy Lempera oversees environmental programs in 65 manufacturing facilities in North America that make Gatorade, Tropicana and Pepsi.

"We provide a lot of manufacturing jobs, and some of these facilities are in water-stressed areas, so we're very sensitive to the fact that we're using water for our product, and we want to use it as efficiently as possible," Lempera said from PepsiCo's office in downtown Chicago, which features first-floor public displays that demonstrate the company's sustainability efforts.

Generation next

Utilizing cogeneration within its manufacturing facilities is a key piece of PepsiCo's efforts to reduce greenhouse gas emissions.

According to the U.S. Energy Information Administraion, a typical power plant, no matter what the fuel—whether it's nuclear, coal or natural gas—operates at about 30 percent net efficiency. Most of that wasted energy dissipates in the atmosphere.

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CUSTOMER PROFILE

PepsiCo Gatorade facility

Location: Mountain Top, Pa.

Application: Cogeneration (CHP) for beverage plant

Cat® Equipment: G3516H gas generator set

PEPSICO

"With cogeneration, we generate electricity onsite where we can capture the heat, which means we can operate at increased net efficiencies of more than 70 percent," Lempera says. "In the course of making Gatorade, we have a very high thermal demand, so we're able to recover that heat from the generator set and put it to good use, offsetting our consumption of natural gas."

At the Gatorade facility in Mountain Top, Pa., a Cat® G3516H gas generator set drives a combined heat and power (CHP) system for a beverage-making operation that produces 140 million gallons of the popular sports drink annually.

The CHP project was developed in late 2015 by Cat dealer Cleveland Brothers Power Systems, with construction taking place throughout most of 2016 and final commissioning in January 2017. The project scope included upgrading the facility's medium-voltage switchgear and heat recovery systems.

The power produced by the generator is used throughout the Mountain Top facility for everything from air conditioning to process control of Gatorade production.

The facility uses a peak of 3 MW of power in the summertime. The Cat generator produces 2 MW, meaning that two-thirds of the facility's peak energy needs are supplied by the CHP system.

"This CHP system is well suited for the application because we use a lot of heat in our manufacturing process in addition to electric power," says Hank Bastemeyer, a controls resource engineer at the Gatorade plant.

Driven by the Cat genset, the CHP system makes about 2,800 lbs./hr. of 100 psi steam, and provides roughly five to six million BTU per hour of hot water. The Mountain Top facility uses three different heat sources from the cogeneration system:

- Exhaust gas is used to generate steam that is used in the beverage-making process.
- Jacket water used for cooling the engine is utilized in a heat recovery loop.

Steam and hot water from the CHP plant are utilized in the production of Gatorade

- Aftercooler water is used for preheating Gatorade prior to the pasteurization process.

"One thing we've instituted that wasn't part of the original design is taking the crankcase vent gases and recirculating them back into the engine," Bastemeyer adds. "So that provides us with a much greener footprint for the engine."

Dealer support

Cleveland Brothers Power Systems provided a turnkey proposal for the generator installation, serving as construction manager for the entire project, as well as the vendor for the generator. Cleveland Brothers also provides all maintenance of the CHP system through a 10-year Customer Support Agreement.

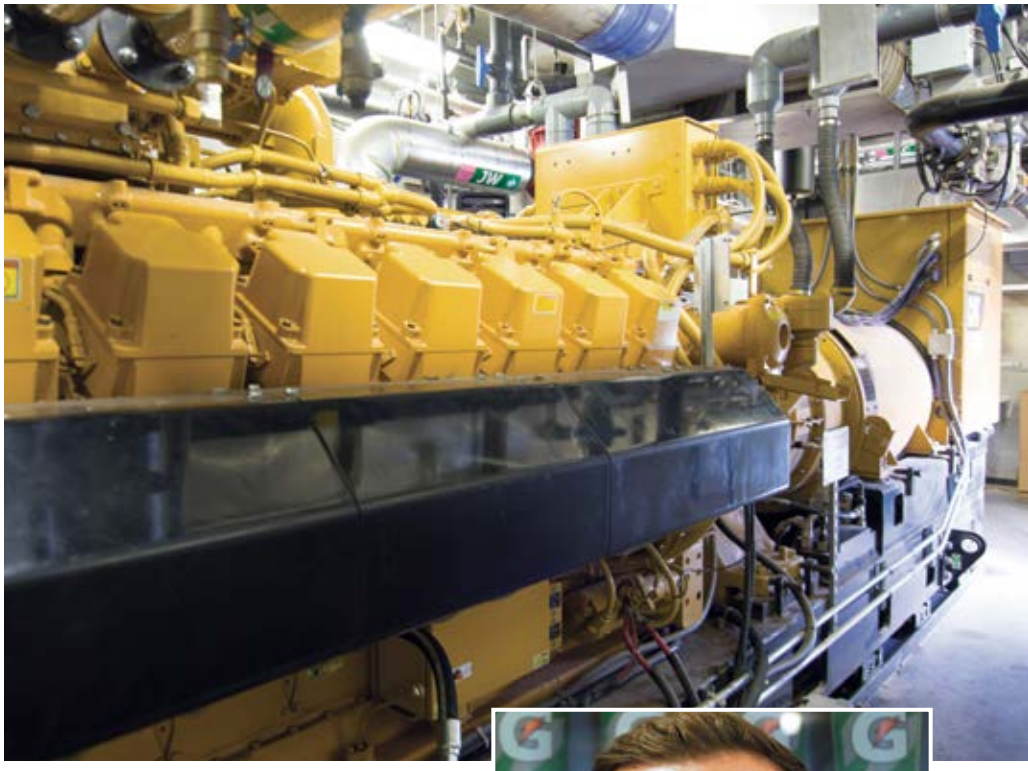
Facilities staff at the Gatorade plant conduct a daily inspection of the G3516H genset.

"If plant personnel identify a concern, they call Cleveland Brothers, and being local, they're able to respond very quickly—their technicians are near the Mountain Top facility, and a short drive away—so they arrive typically within a half hour, but surely within the same day," Lempera says.

Bastemeyer has developed a software monitoring system that provides live, comprehensive information about the CHP system, including performance of the Cat engine.

"We also have a cell signal that's being connected to the engine, so that Cleveland Brothers can remotely monitor the system, as well," he says. "We have email and text messages when there's an alert. So both myself and Cleveland Brothers receive information from the engine 24/7."

The staff at the Mountain Top plant is also evaluating the possibility



of utilizing biogas derived from its wastewater treatment system as an additional fuel source for the Cat genset, Bastemeyer says.

"We have a good relationship with Cleveland Brothers," he says. "It's the expectation of PepsiCo that the genset runs 90 percent of the time or better, and we are working with them to achieve that goal."

Green = Big savings

Since it began operating in late January with full heat recovery, Lempera says the CHP system will save the Gatorade facility about $1 million in annual electric utility costs. That savings is offset by added use of natural gas to run the generator, as well as regular maintenance performed by Cleveland Brothers. Annual net savings with the CHP system is expected to total about $600,000, he says.

"PepsiCo is looking to reduce costs as any other company would, but we also have a very green incentive," Bastemeyer says. "By installing a cogeneration system and generating power onsite, we are reducing our greenhouse emissions, so it's better for the environment, as well as saving us money in energy costs."

When selecting a generator, PepsiCo bases its decision on price, local support, and also operating experience with the engines.

"We have several Cat generators in our fleet, and we've had good experience with them," Lempera says. "The entire project was turnkey, and Cleveland Brothers was in the right ballpark for what we expect on price. So at the end of the day, pricing and our experience with Caterpillar helped us make our decision."

Currently, PepsiCo is nearing completion of a 3.6 MW cogeneration system consisting of three Cat 3512E generator sets at its Indianapolis Gatorade facility. Lempera says there is more to come.

"Based on the success we've had at the Mountain Top facility and our ongoing project at Indianapolis, we have more opportunities for cogeneration systems, and we'll continue to work on developing additional projects that serve our needs and help us meet our sustainability goals."

"In the course of making Gatorade, we have a very high thermal demand, so we're able to recover that heat from the generator set and put it to good use, offsetting our consumption of natural gas."

ANDY LEMPERA
Director of Sustainability
PepsiCo North America
Beverage Operations

T-REX

BIG CAT® C175-16 GENSETS ANCHOR HOSPITAL POWER PLANT

When UNC Rex Healthcare elected to build a new central energy plant, it meant relocating standby power generation equipment from the basement of the hospital in Raleigh, N.C. to a new standalone central energy plant in the rear of the campus.

In conjunction with the move, Rex purchased two Cat® C175-16 generator sets to go with the existing Cat 3516 genset that was relocated from the basement.

Another Cat C175-20 was added when additional capacity was required as part of the hospital's Heart and Vascular campus expansion.

"We have a long, ongoing partner relationship with our Cat dealer, Gregory Poole," says Rex facility director Jeff Carter. "We've had a very good relationship with them for many years, and it was pretty much decided that we were going to use Cat generators at the beginning of this project."

The 17,000-square-foot, two-story energy plant opened in 2012, and houses four Cat diesel generator sets that are capable of powering the entire campus in the event of a blackout. The power plant can generate 12.25 MW of power—more than enough to cover the entire electrical load of the Rex campus.

"This facility is very well designed," says plant manager Michael Brailsford. "I couldn't be happier the way the control room is positioned in a central location. I can operate and monitor the generators from the control room. I can watch our boilers and eventually the chiller plant is going be located in the back. And with our SCADA and building automation systems, we have total control and view over everything from our control room."

Rex Hospital provides a full range of medical services to nearly 500 patients on a daily basis. The facility includes 24 operating rooms along with procedure rooms, patient care support, intensive care and an emergency ward.

"If we lose our main utility power source, these generators will automatically kick on within 10 seconds or less and provide full power to the hospital," Carter says.

Rex does not hesitate to switch over to its own utility power when a storm threatens. The hospital exercises the

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CUSTOMER PROFILE

UNC Rex Healthcare

Location: Raleigh, N.C.

Application: Standby power

Cat® Equipment:
Main Hospital: C175-16 (2), C175-20, 3516; Other Locations: 3208, 3406, 3412, C18, G25

UNC REX HEALTHCARE

"These generators are very complex pieces of equipment, and Gregory Poole provides the expertise required to keep them running at peak performance."

MICHAEL BRAILSFORD
Plant Manager
UNC Rex Healthcare

practice known as storm running as many as eight to 10 times a year.

"An office building or other businesses can ride through a storm having their power blink on and off a little bit, but we can't because we're a hospital," Brailsford says. "We have doctors who are operating and other procedures going on, such as people who are on life support, so we must maintain as smooth a flow of power from the grid as possible. We won't put up with too many of those events before we decide to separate from the utility."

Rex also has an agreement with Duke Energy where it will curtail its energy consumption from the grid and self-generate 75 percent of the hospital's load when called upon by the utility—usually during periods of extreme ambient cold or heat, which creates a higher demand for grid power.

Bigger power, smaller footprint

The high power density of the 4 MW C175-20 generator set provides more power from a smaller footprint. The increased power density is a key benefit for standby power used in large, mission-critical installations, such as data centers and hospitals. The larger single unit enables hospitals to carry larger life-safety loads.

The generator sets are tested weekly by Rex facilities staff to ensure they are in proper working order. Brailsford alternates between paralleling the generators with the utility and isolating from it. One week he will perform a base load test where 30 percent of the capacity of each of the generators is utilized, running three at a time. The following week, he isolates from the grid and runs the generators for an hour at full load.

Rex staff also performs routine maintenance. But all regularly scheduled maintenance is performed by Gregory Poole Power Systems as part of a Customer Support Agreement with the hospital.

"We have operators who have basic knowledge of the maintenance that

UNC REX

UNC Rex Healthcare is a 439-bed general hospital located in Raleigh, N.C. The capital city's oldest hospital was founded in 1894 through a bequest from John T. Rex, a tanner and local philanthropist.

UNC Rex Healthcare is a member of the UNC Health Care system, a non-profit integrated health care system owned by the state of North Carolina.

UNC Rex Healthcare was the first hospital in the Research Triangle, and one of only 10 in North Carolina to receive Magnet Recognition, which places Rex nurses among the top two percent in the country. Last year, UNC Rex Healthcare received a top five-star rating from the Centers for Medicare & Medicaid Services, placing it among the top 9.1 percent of hospitals nationwide. CMS analyzes hospitals using data on outcomes, patient experience and other factors.

In 2014, UNC Rex Healthcare was recognized as the hospital with the best patient interactions in the state of North Carolina.

needs to be done on the generators," Carter says. "Gregory Poole has highly skilled service technicians who can come in and work on these engines at any time. They pretty much know them inside and out."

Adds Brailsford: "These generators are very complex pieces of equipment, and Gregory Poole provides the expertise required to keep them running at peak performance. As a backup resource, they're able to work directly with the factory at Caterpillar."

Brailsford has worked at Rex Hospital for 20 years, and has come to appreciate the dependability of the Cat generator sets.

"They're great machines," he says. "They start fast and they're reliable. They're doing the job that we need them to do, and I sleep well at night, knowing that we have good machines here."

CAT® BULK FUEL FILTRATION

UNC Rex Healthcare has two 40,000-gallon fuel tanks stationed in a parking lot adjacent to its central energy plant. The diesel fuel is tested twice a year for impurities.

But even with those measures, minute amounts of water and debris were entering the energy plant's fuel storage system, which can ultimately interfere with the fuel pumps on the hospital's Cat® generator sets.

When the problem was identified as contaminated fuel, technicians from Gregory Poole Power Systems removed the old filtration system and installed a Cat Bulk Fuel Filtration System.

"We installed a Cat filtration system last year, and ever since then, all the fuel has been crystal clear," says Tom Hansen, a product support sales representative for Gregory Poole. "There is no debris coming through it, and no water. Everything has been testing perfectly."

Clean, dry fuel is absolutely essential in order to achieve long injector life.

A good portion of water and dirt can be removed from the supply fuel by using proper storage tank settling and draining practices. Most of the remaining water and dirt can be removed by using bulk filtration or adding filtration and water separation capacity to each generator set.

The most cost-effective and efficient method to ensure clean, dry fuel is delivered to genset fuel tanks is to use bulk-filter coalescer systems. Filter-coalescer filtration systems have been the standard method to clean large volumes of fuel in the airline and petroleum industries for more than 40 years.

These filtration units are designed to remove solid particles and water from the fuel with single-pass filtration. The units are placed in the fuel supply line between the fuel storage tank and fueling station. The units are designed to meet the maximum flow requirements of the fuel delivery system.

"WE INSTALLED A CAT FILTRATION SYSTEM LAST YEAR, AND EVER SINCE THEN, ALL THE FUEL HAS BEEN CRYSTAL CLEAR."

Bulk Fuel Filtration applications

The Cat Bulk Fuel Filtration System is intended for use in any application where users store fuel for machines or engines. The filter-coalescer units are placed in a series between the fuel pump on the fuel storage tank and the fuel station. Smaller units are intended for remote day tanks or fuel truck applications.

The system does not require electrical power, unless it is used in extremely cold climates. An optional electric fuel heater is available for colder climates.

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OUR EXPERTS WILL HELP YOU GET THE JOB DONE—RIGHT

Whether you're installing a backup generator for your small business, working with an engineering firm to upgrade your manufacturing plant, or designing a new power station from ground up, our Power Systems experts can provide the right level of expertise and support—when you need them. Depend on our experts to help you:

- Reduce risks and delays that could impact your timeline
- Understand and assist with obtaining the necessary permits and approvals
- Manage proper installation
- Provide startup services and reliability testing
- Provide training to facility personnel as necessary

Contact the Power Systems experts at our dealership for more information.