A Caterpillar® publication for Power Professionals FALL 2022

RUNREADY™

SAFETY NET

CAT® GENSETS HELP HOSPITAL RIDE OUT HURRICANES

CONTROL FACTOR
Utah hydro plant overhaul includes switchgear upgrade

STAR PERFORMERS
Rental supports outdoor concerts at Idaho casino hotel

CAT®

Riding out the Storm

Since the 1980s, there have been more storms, stronger hurricanes, and an increase in hurricanes that rapidly intensify in the North Atlantic Ocean. Over the last 30 years, the Atlantic hurricane season has averaged 14 named storms, seven hurricanes, and three major hurricanes (Category 3, 4, or 5).

A year ago, Hurricane Ida came ashore in Louisiana on August 29th with sustained winds of 150 mph accompanied by heavy rain. Extreme damage was recorded throughout southern parts of the state, with a very large number of homes damaged or destroyed, while the storm surge and rain caused widespread flooding and water damage. The deadly and destructive Category 4 Atlantic hurricane became the second-most damaging and intense hurricane to ever make landfall in Louisiana.

According to the National Oceanic and Atmospheric Administration (NOAA), New Orleans has an 11 percent chance of experiencing the impact of a hurricane during an average year. A hurricane makes landfall within 50 miles of the Crescent City once every seven to 11 years.

Fortunately, Children's Hospital New Orleans was not seriously impacted by the storm. With a fleet of four new Cat® C32 diesel generator sets plus two refurbished 3508 gensets, the hospital ran on standby power until grid power was restored.

Meanwhile, a casino hotel in Idaho is relying on rental power from its Cat dealer for staging outdoor concerts during the summer months.

DID YOU KNOW?

Ahead of Its Time

Cat® D13000: 75-Year-Old Dual-Fuel Technology

If you think dual-fuel engines are a modern-day invention—created to reduce reliance on diesel fuel by switching to natural gas, thereby minimizing emissions—think again.

On display at the Foley Engine Rebuild Center in Park City, Kansas, a refurbished Cat® D13000 series engine is a dual-fuel model that dates back to the 1940s. It was originally used to power D8 dozers, then transitioned into an industrial engine and eventually a generator set.

Dodge City, Kansas bought the engine in 1947 and used it to pump water for the city water well. Former Foley mechanic Ken Davis recalls working on the engine and taking the cylinder heads off in the early 1970s. After Dodge City stopped using the D13000, it contacted Davis about 20 years ago to come and remove it.

"I started out as a mechanic and worked my way down to management," Davis jokes. His retirement plaque features an engraving of the D13000, and the team at the rebuild center still refers to it as "Ken's engine."

"A few years ago, Caterpillar went to Dynamic Gas Blending on some of its 3500 Series engines, and that was considered revolutionary," Davis says. "Whenever people from Caterpillar came out to the rebuild center, I would always make sure to show them the D13000."

ZAHID TRACTOR DELIVERS CAT® POWER SOLUTIONS FOR THE RED SEA PROJECT

69 generator sets will be delivered and installed using both conventional diesel and B100 biodiesel fuel

Caterpillar dealer Zahid Tractor is supplying hybrid power solutions for The Red Sea Project, which is being developed along Saudi Arabia's west coast.

The Cat dealer is providing 69 generator sets, up to 32 MW of prime power, that can run on both conventional diesel and B100 biodiesel during the construction phase. Once complete, the 28,000 sq km tourism destination will include a total of 16 hotels, an international airport and other commercial operations scheduled for completion in 2023.

The project leverages Caterpillar's expertise in supplying and maintaining field-proven power solutions that have enabled operation on various hydrotreated vegetable oil (HVO), biodiesel, and blended fuel products for more than a decade.

Zahid Tractor has already delivered and installed most of the generator sets in weather-resistant, sound-attenuated enclosures that are currently being used to support construction activities and workforce accommodations.

"The Red Sea project is a global showcase for demonstrating how large-scale economic development projects can incorporate sustainability into their operations to help them achieve their business goals," said Bart Myers, General Manager for Caterpillar Large Electric Power. "Caterpillar and Zahid Tractor have the advanced technologies and local expertise needed to support every phase of this high-profile project and help attain its business and sustainability targets."

Zahid Tractor is also addressing uptime needs through Customer Value Agreements (CVAs), which include customer technician training, regular maintenance at scheduled intervals, and around-the-clock, on-demand technical support. Additionally, most of the units are equipped with Cat Connect Remote Access Monitoring (RAM), Caterpillar's advanced data visualisation, reporting and alert offering.

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New Orleans has an 11 percent chance of experiencing the impact of a hurricane during an average year, according to the National Oceanic and Atmospheric Administration (NOAA). Last year, Children's Hospital New Orleans rode out Hurricane Ida without incident as it ran flawlessly on standby power from six Cat® generator sets for the storm's duration.

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SAFETY NET

CAT® GENSETS HELP HOSPITAL RIDE OUT HURRICANES

Founded in 1955, Children's Hospital New Orleans is the largest and oldest freestanding hospital for kids in the Gulf South. Following the polio epidemic, it originally opened as a rehabilitation center for physically disabled children in 1955 under the name Crippled Children's Hospital. The facility was expanded into a full-service hospital and given its current name in 1976.

From its main campus in Uptown New Orleans and satellite locations throughout Louisiana, Children's Hospital New Orleans works to ensure that families across the region have access to specialized pediatric care. Each year, Children's cares for children from all 64 parishes in Louisiana, the Gulf South, and beyond. In 2021, Children's Hospital provided more than 236,908 clinic visits, 48,643 emergency room visits, and performed 11,432 surgeries.

Recognized as a Best Children's Hospital for 2022-23 by *U.S. News & World Report,* Children's Hospital is the only pediatric facility in Louisiana to incorporate two academic pediatric medical programs under one roof. Partnerships with LSU Health New Orleans and Tulane University School of Medicine provide unparalleled opportunities for educational enhancement, innovation,

and improved access to high-quality pediatric healthcare.

As a 257-bed pediatric medical center, Children's Hospital's main campus has one of the area's busiest emergency departments with 46 exam rooms, including a dedicated behavioral health pod and two trauma bays. Its critical care air transport team and dedicated helicopter named "Abby" brought 375 patients from across the region for life-saving critical care services in 2021.

In 2009, Children's Hospital formed Louisiana Children's Medical Center when it aligned with Touro Infirmary. Now a six-hospital health system called LCMC Health, the community-minded healthcare system operates Children's Hospital, Touro, New Orleans East Hospital, University Medical Center, West Jefferson Medical Center and East Jefferson General Hospital.

Significant expansion

Five years ago, Children's Hospital New Orleans broke ground on the most significant expansion project in the hospital's history. The unprecedented $300 million investment brings together infrastructure, technology, and unmatched expertise.

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CUSTOMER PROFILE

Children's Hospital New Orleans

Location: New Orleans, La.

Application: Standby power

Cat® Equipment: 3508 (2) and C32 diesel generators (4)

Children's Hospital
New Orleans
LCMC Health

Located in a park-like setting in the Uptown neighborhood of New Orleans, the expanded 17-acre campus includes 230,000-plus square feet of new clinical care space. The expansion included new, state-of-the-art facilities for enhanced heart care, cancer care, surgical and emergency services, along with a new, freestanding, 51-bed Behavioral Health Center, which is among the largest in the country for pediatrics. Complemented by family housing, gardens, playgrounds, and green space, Children's Hospital's expanded campus delivers the highest level of care for patients and families.

"From our perspective, it was really an investment in the future of Louisiana kids," said Jonathon Brouk, Chief Operating Officer and Chief Strategy Officer for Children's Hospital. "For decades we've delivered excellent clinical care. And finally, the bricks and mortar match the excellence that our clinical team has provided for years."

"We felt comfortable knowing we had the power we needed by having these Cat® generators here, and they supplied us with the power we needed during the storm."

PHIL HEBERT, Senior Director of Operations
Children's Hospital New Orleans

Hurricanes pose risks

In 2005, Hurricane Katrina left a devastating impact on New Orleans. While the city has made drastic improvements to its levee system since Katrina left most of the city under several feet of water, more than 50 percent of the city's residents live below sea level. To put in perspective how low New Orleans is in terms of elevation, the Mississippi River is almost 30 feet above the city level. Meanwhile, the land around New Orleans is sinking, which puts the city at increased risk should another major hurricane strike.

According to the National Oceanic and Atmospheric Administration (NOAA), the Crescent City has an 11 percent chance of experiencing the impact of a hurricane during an average year. A hurricane makes landfall within 50 miles of New Orleans once every seven to 11 years.

One year ago, Hurricane Ida came ashore in Louisiana Aug. 29 with sustained winds of 150 mph accompanied by heavy rain. Extreme damage was recorded throughout southern parts of the state, with a very large number of homes damaged or destroyed, and the storm surge and rain causing widespread flooding and water damage. The deadly and destructive Category 4 Atlantic hurricane became

the second-most damaging and intense hurricane to make landfall in Louisiana.

"Last fall, we were faced with Hurricane Ida, which really had a catastrophic impact on the city and all of Southeast Louisiana," Brouk said. "We had to figure out how we could continue to serve the critically ill children we care for day in and day out."

"To a large degree, we're Louisiana's safety net for really sick kids. When they don't have anywhere else to go, they turn to us. And we have to adjust and adapt to take care of those kids, no matter what the challenges we face."

"As part of that, one of the big challenges we think about is energy sustainability and making sure that we can continue to power the facility," Brouk said. "That's why we turned to Louisiana Cat to help us ensure we have sufficient backup power in case we lose shore power during an event like Hurricane Ida."

Prior to the expansion, Children's Hospital had four Cat® 3508 diesel generators for standby power. During 2019, Children's added four Cat C32 diesel gensets as part of the expansion, while upgrading two of the 3508s with new generator ends and controls. Combined, the six generators are capable of supplying the hospital campus with its entire electrical load in the event of an outage.

"For Ida, we decided to switch over to our generators before we had any power blinks so our surgery team and any other hospital services would not be affected," said Phil Hebert, senior director of Support Services for Children's Hospital. "So, we proactively switched over and they continued running throughout the storm. They performed flawlessly and maintained continuous power to our facility."

Portions of the hospital incurred exterior damage, which included wind-driven rain penetrating areas that were compromised. But, for the essential staff and seriously ill patients who sheltered in place throughout the hurricane, riding out the storm essentially turned out to be a non-event.

"We felt comfortable knowing we had the power we needed by having these Cat generators here, and they supplied us with the power we needed during and after the storm," Hebert said.

Gearing up

As an accredited health care facility, Children's Hospital is required by the Joint Commission on Accreditation of Health Organizations (JCAHO) to maintain standby power and run the generators on a weekly basis with no load, and also monthly with load, Hebert says.

"We document all amp readings, temperature—anything that's required by the Joint Commission," he says.

Hebert knows he can count on Louisiana Cat dealer, whether for prompt service during an emergency, or any instance when he requires parts or technical support.

"In a hurricane or a storm, our response is typically immediate," says Matt Dufrene, an electric power service sales manager for Louisiana Cat. "If we're able to access the site, we'll be there. At Louisiana Cat, we are diversified in the markets we serve, and that includes electric power generation, marine, oil and gas, and industrial. During a hurricane, most of those markets shut down, whereas in electric power we're gearing up."

"We go from maybe 30 technicians in electric power to as many as 200 technicians at that point. So, we're able to respond like no one else. This is our time to shine—it's our Super Bowl."

ADVANCED ELECTRICAL SERVICES

IMPROVE YOUR POWER SYSTEM'S PERFORMANCE

With so much at stake in your facility, our dealership in tandem with engineers from Cat® Switchgear can help solve complex problems and provide cost-effective solutions to enhance your system with faster processing and improved functionality. You'll benefit from more than 20 years of experience in Cat Switchgear that will help you and your team with the equipment, technology, and training you need to stay running.

If you want to improve or maintain your facility's performance, consider requesting preventive maintenance and upgrading or retrofitting outdated or obsolete components that will help you:

- Avoid system failures and shutdowns
- Improve the performance of your power system
- Extend the life of your power system components
- Reduce the expense of emergency repairs

Preventive Maintenance

Our technicians are familiar with your power system and can conduct a comprehensive audit that will:

- Determine the overall condition
- Identify areas of risk and opportunities for upgrades in performance, safety, and communications
- Recommend options for maintenance, upgrades and retrofits
- Suggest best practices for ongoing maintenance

Protective relays

Periodic relay maintenance and testing is critical for employee safety, avoiding unplanned electrical outages, and proper operation of critical power systems. We can provide:

- Studies that prove a comprehensive inspection, maintenance, and testing program is the only way to assure correct relay operation
- Service technicians who are familiar with your relays and are trained according to industry standards
- A detailed report to verify the settings and proper operation of your relays

Circuit breakers

Inadequate circuit breaker maintenance is a leading cause of unscheduled power outages. Circuit breakers need regular maintenance and testing to ensure electrical system reliability, employee safety through validation of proper equipment operation, and compliance with industrial regulations and standards to ensure against litigation and loss of productivity. We can provide:

- Service technicians who are familiar with your circuit breakers and are trained according to industry standards
- Cat trained technicians who can conduct primary and secondary injection testing, insulation resistance testing, contact pressure testing, and trip unit operation verification
- A detailed comprehensive report on the condition of your circuit breakers

Switchgear Retrofit

A switchgear retrofit by Cat trained technicians can help improve your power system's overall performance. A retrofit can include a software update, hardware retrofit, or complete overhaul of your electrical power system. If any of the items below apply to your equipment, it's time for a retrofit:

- Outdated switchgear
- Decreased system performance
- A sequence of operations not working as designed
- Changes to site configurations

To learn more or to request an audit of your power system, contact our dealership.

CONTROL FACTOR

MANTI HYDRO PLANT OVERHAUL INCLUDES SWITCHGEAR UPGRADE

In 1849, Brigham Young dispatched a company of about 225 settlers to the Sanpete Valley. They endured a severe winter by living in temporary shelters dug into the south side of the hill on which the soaring Manti Temple now stands.

Brigham Young named the new community Manti, after a city mentioned in the Book of Mormon. Manti was one of the first communities settled in what was to become Utah, and was incorporated in 1851. In 1888, Manti Temple was the third Latter-day Saint temple built west of the Mississippi River.

Today, Manti has a population of 3,862, and has an agrarian economy. The town's water supply comes from nearby Manti Mountain.

As a member of the Utah Municipal Power Agency (UMPA), the Manti Upper Plant provides hydroelectric power to UMPA. Operating around the clock 365 days a year, the Manti Upper Plant serves as a baseload resource of energy to UMPA, while also supplying a portion of Manti's power requirements.

The Manti Upper Plant is one of six small hydroelectric plants that UMPA operates, and is its largest producer based on kilowatt hours generated.

The water for the Manti Upper Plant is gathered about eight miles upstream through a network of springs and pipes that feed into collection points. The water eventually joins up at a single collection point known as a "head box." From there, it is funneled into a 12-inch steel pipe that runs seven miles down the canyon through the plant. The pressure from the water coming downstream powers the hydroelectric generator.

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CUSTOMER PROFILE

Utah Municipal Power Agency

Location: Manti, Utah

Application: Hydro power

Cat® Equipment: 12,470V 1200A Switchgear with M1E Modicom Controls, custom screens with automation

Once the pressure and energy are removed from the water, it flows into a tank and continues down to the city.

Comprehensive upgrade

Several years ago, UMPA contacted Cat® dealer Wheeler Power Systems to design and install a comprehensive overhaul of the Manti Upper plant.

"We had a whole host of electrical issues with the plant that we just couldn't solve, and they were getting so costly that it was becoming economically unfeasible to run the plant," says Thomas Sorrels, an electrical technician supervisor for UMPA.

Based on an established relationship it has with Wheeler Power Systems, UMPA consulted with Wheeler and Caterpillar. After an initial investigation, it was determined that an overhaul of the plant would be the best approach.

"Wheeler helped us and worked with Caterpillar to determine a scope of work that included materials and necessary upgrades," Sorrels says.

After consulting with UMPA and determining the scope of the project, Wheeler began the planning process, which included procuring the necessary equipment, says Jason Soares, the site project manager for Wheeler Power Systems.

"We work with Cat Switchgear to start that process on procuring those items with longer lead times," Soares says. "We also start disassembling when it's a retrofit like this. In this case, we took the generator and the turbine out early last fall. We went ahead and had them refurbished and ready to go for the springtime along with the new switchgear when it was delivered. That way we could optimize the spring runoff season for the customer."

Critical switchgear update

The upgrade involved refurbishing the generator end of the hydro turbine that produces electric power. Another important part of the project was upgrading the switchgear that controls the flow of energy produced by the turbine.

"Small upgrades had been made to the plant over time that were hard to document," says Shane Minor, a sales representative with Wheeler Power Systems. "They were hard to quantify when troubleshooting was needed. So, it just made sense to come back to square one and get an engineered design in place.

"And really, the heart and soul of that is the Cat Switchgear and the controls," Minor adds. "It's the automation and the remote visibility that the new switchgear provides.

"Technology is advancing at a pace that we probably couldn't have imagined 25 years ago. It's progressing at a rate where it makes sense to look at making upgrades," Minor says. "This will bring the type of functionality that they really need. For example, remote visibility to what the generator plant is doing now comes through the switchgear.

"So not only can we bring automation to a plant through the switchgear, we can provide remote visibility, ensuring they have better protection electrically through the newest technology that's implemented into those controls and into that switchgear."

Wheeler received valuable technical assistance from the experts at Cat Switchgear.

"They went out of their way to undertake a project that they had really never done before, and that was to implement Cat Switchgear and controls into a hydro generation application," Minor says. "We feel like we received real value working with Cat Switchgear.

> **"And as they've done in the past on other projects, Wheeler helped us throughout the entire process, including installation, programming and commissioning."**
>
> **THOMAS SORELLS**, Electrical Technician Supervisor, UMPA

We get the support and expertise that we feel like we couldn't have gotten anywhere else. We get engineered design drawings that come along with the plan, so that anyone can walk in here and actually troubleshoot the plant."

Remote monitoring

Remote monitoring is critical for UMPA because the plant is unmanned most of the time.

"We need to know if the plant goes down because we will then need to schedule more power for the area," Sorrels says. "And for Manti City, they need to know so they can get the water to town because backup water supplies are limited in the area."

Previously, Manti City employees needed to make daily trips up the canyon to make sure everything was working right at the hydro plant, recalls Blake Demill, superintendent of Manti City Power.

"We're spending a lot less time up here because things are more automated, and they take care of themselves," Demill says. "We don't have to check things as often, and it's easier to check when we do go there. It takes a lot of load off of us. This means we can take care of the things we need to do in town. It's also monitored up in Spanish Fork by UMPA, so they can see what it's doing all the time."

Upon completion of the project, Wheeler personnel spent a day with Manti City Public Works employees familiarizing them with all the components that were installed, as well as providing a maintenance schedule.

"We showed them how to operate it and put together a sequence of operations," Soares says. "We went through the drawings with them and spent a lot of time troubleshooting. We simulate different scenarios so that they can work through them. By practicing with various scenarios they are likely to encounter, it increases their comfort level and confidence in the system when it was turned over to them."

A new protective relay monitors for overcurrent, over-voltage, and under-voltage—all of which can be detrimental in a fault situation.

"There are also things that can happen with the hydro turbine if it's not controlled precisely during those faults," Minor says. "So, we have put measures into place, such as instrumentation, to follow that really closely. We're able to react very quickly to any kind of fault appearing on the electrical system that can take the hydro generator down."

Going into the project UMPA officials were concerned with how the upgrade would play out, since it involved hydro power as opposed to an engine-generator set.

"But we were able to work through the process," Sorrels says. "We spent a lot of time working with the Caterpillar engineers based on how the system used to work and upgrading it to the new, more sophisticated method of operation.

"And as they've done in the past on other projects, Wheeler helped us throughout the entire process, including installation, programming and commissioning," Sorrels says. "Then after commissioning, they helped us work through some of the bugs in the system and made sure that everything was in good working order.

"Now that it's been online for awhile and really proved itself, we're very happy with the upgrade."

STAR PERFORMERS

RENTAL POWER SUPPORTS OUTDOOR CONCERTS

CUSTOMER PROFILE

Shoshone-Bannock Casino Hotel/ Chiefs Event Center

Location: Fort Hall, Idaho

Application: Mobile & standby power

Cat® Equipment: XQ125 mobile generators (5), C-175 & 3516 diesel gensets

SHOSHONE-BANNOCK CASINO HOTEL

The Shoshone-Bannock Tribes is a federally recognized sovereign nation located in southeast Idaho on the Fort Hall Reservation.

With more than 6,000 tribal members and three casinos, the tribes have a growing impact on the economy of eastern Idaho, accounting for more than 4,400 jobs and $450 million annually. According to a statewide tribal economic impacts study, 50 percent of visitor traffic to the tribes' three casinos comes from out of state, representing new money for the region.

Since 2008, the tribes have completed several major projects, including the $49 million Shoshone-Bannock Hotel & Event Center that opened in 2012. The Chiefs Event Center can host more than 900 people, while the 156-room hotel includes 11 luxury suites and the area's largest hotel ballroom. In 2019, an adjacent casino was merged with the hotel and event center.

Located 10 miles outside Pocatello, Idaho, the Shoshone-Bannock Casino Hotel is situated on a 17-acre campus. The casino originated in 1990 when it offered high-stakes bingo from a single room less than 1,000 square feet. Today, anywhere from 1,000 to 2,000 people patronize the casino, hotel and event center on a daily basis.

Not only does the combined facility serve as an economic growth engine for the region and provide jobs for tribal members, revenue from operations is shared to support social service programs within the tribal nation.

Mobile power required

In 2012, Shoshone-Bannock began staging concerts and other events at the Chiefs Event Center, which has multiple indoor spaces that can be modified depending on the events that are held there.

During the summer months, the event center hosts outdoor concerts and comedy shows, seating up to 4,000 guests. The summer concert series features major attractions, such as country singer Brad Paisley, that require a larger stage and hi-tech audio and lighting equipment. The outdoor shows require additional power beyond what the event center's electrical infrastructure can provide.

"The larger acts require a bigger stage along with more sophisticated audio and video, and that's why we need mobile generators to supply additional power," says entertainment director Jessica Rodriguez. "We need power for more than just the stage; we need it for our beer tents and outdoor lighting. So the power is not just to support the entertainers, but also the guests who attend."

In order to adequately support additional power that's required for outdoor concerts, the tribe utilizes mobile Cat® rental power from Western States Cat.

Until this summer, the event center used rental power from another outside vendor that proved unreliable. That prompted the event center to evaluate its options. Ultimately, the decision was to rent Cat mobile generators from Western States.

"The other vendor didn't have the knowledge and experience Western States has," says Chance Day, an electrician for Shoshone-Bannock Casino Hotel. "I have an uncle and a couple of friends who work at Western States Cat, and it was through word-of-mouth and what everyone says around town about their customer service and the expertise of their technicians that convinced us to make the change. They invest in updated equipment that runs better and is more reliable."

For the outdoor shows, the event center utilizes anywhere from three to five 400 amp generators, and three or four 200 amp generators. Most of them are used for stage lighting, audio equipment and video.

"And then a couple generators are connected to rented RVs that serve as the green rooms for the artists to get ready," Day says. "So, we need to be able to power those and that changes from show to show. We like the flexibility with the Cat mobile generators because all the performers have different requirements, so it's nice to be able to move those gensets wherever we need them.

"When Brad Paisley was here, his entourage arrived in eight tour buses," Day continues. "They all had 50-amp cords on them, so we had to power all those buses while they were here. It's nice to know we have quiet, reliable power to support our outdoor events."

Continued on page 14

Prior to a show, Western States Cat delivers the rental generators to the outdoor venue. Day and his staff move them into position and get them connected before a Western States technician makes sure they have enough fuel and that the circuit breakers are functioning properly.

This summer, Day says the Cat gensets and the Western States support team have proven to be star performers.

"Our experience with Western States has been great," Day says. "The only time we had an issue with a breaker that had to be reset was beyond my capability. We had a tech out here within 15 minutes and he corrected the problem right on the spot."

The Shoshone-Bannock Casino Hotel also relies on standby power from a permanent Cat 3516 diesel generator, which can power the entire facility during an outage. The casino is backed up by a C-175 genset.

"It's surprising how many grid outages we tend to have," Day says. "There are lots of farm fields out here, and storms roll through and cause issues with grid power. So it's important to have a reliable source of standby power, and our Cat gensets always pull us through until power is restored.

"And if things are ever beyond my ability, it's nice to know that I have someone on call from Western States who can get here within 10 to 15 minutes and help us out just in case."

"We need power for more than just the stage; we need it for our beer tents and outdoor lighting. So the power is not just to support the entertainers, but also the guests who attend."

JESSICA RODRIGUEZ, Entertainment Director
Chiefs Event Center

CAT® XQ2280

NEW LARGE-SCALE MOBILE POWER MODULE

The new Cat® XQ2280 power module is the industry's first single-engine mobile power solution above 560 kW that complies with EPA Tier 4 Final emission standards.

Now available for 60-Hz applications from Cat dealers throughout North America, the Cat XQ2280 power module provides up to 2 MW of standby power or 1825 kW of prime power. Its essential components are all packaged in a weather-resistant, 48-foot container that streamlines transport and deployment, while providing exceptional sound attenuation.

The XQ2280 is ideal for data centers, healthcare facilities, municipal infrastructure, wastewater treatment plants and other utilities, mining and quarry sites, and other large-scale applications.

"As the need grows for temporary power solutions that can support operations at an enterprise level, the XQ2280 proides superior prime and standby power performance in a complete, easy-to-operate package that meets North America's most stringent emission standards." said Tom Caldwell, global general manager for electric power rental solutions at Caterpillar.

Optimal performance

Powered by the field-proven Cat 3516C engine, the XQ2280 power module provides numerous features that make it ideal for rental applications. Equipped with the EMCP 4.4 digital control panel, it provides all generator set controls and system indicators in a single, easy-to-access interface, as well as programmable logic controller (PLC) functionality that improves reliability and flexibility for accommodating changes in processes or application requirements.

The XQ2280 power module is highly mobile for simplified site logistics, featuring external fuel and diesel exhaust fluid (DEF) fill ports positioned on the same side of the module for convenient single-side access. A new externally mounted touch-screen interface provides a safe and convenient way to monitor operating status and perform common tasks without entering the unit.

It is equipped with Cat Connect technology to remotely track and manage the generator set and improve operational efficiency. The telematics send real-time information on fuel level, DEF level, battery voltage, and run status. Connected assets support peak operation with timely insights that help customers better control costs, improve performance and reduce risks.

The XQ2280 power module is designed with a dual-wall, 1,050-gallon fuel tank that enables up to 10 hours of prime operation. An optional cold-weather package is available for operation in extreme weather conditions.

The XQ2280 can use up to 100 percent hydrotreated vegetable oil (HVO), a renewable fuel that can further reduce the carbon footprint of the engine and the environmental footprint of users. The mobile power module is also remote fuel- and DEF tank-capable for utility applications and continuous operations.

For additional information about the complete range of Cat rental power solutions, visit cat.com/rental power, or contact our dealership.

At Cat Electric Power, we are striving for a world in which all people's basic needs—such as shelter, clean water, sanitation, food, and reliable power—are fulfilled in a sustainable way. We provide microgrids, combined heat and power (CHP), and low/no carbon-fueled power systems that enable economic growth through sustainable infrastructure and energy development.

Learn more at www.cat.com/sustainablepower

FOLLOW CAT ELECTRIC POWER

CAT®
LET'S DO THE WORK.™