

# POWER PROFILE

Customer: Tennessee Aquarium

## Location:

Chattanooga, Tennessee, USA

## Customer Business Issue:

Backup power that sustains environments for more than 12,000 animals representing almost 800 species

## Solution:

[Cat® D350 GC diesel generator set](#)

## Cat® Dealer:

[Stowers Machinery](#)



The Tennessee Aquarium is home to more than 12,000 animals representing almost 800 species.



Cat® GC generator sets offer excellent customer value by delivering performance in a minimal footprint.

## POWER NEED

Since opening in 1992, the Tennessee Aquarium has attracted more than 25 million people to Chattanooga from all over the world. It is consistently recognized as one of the country's top public aquariums, and in 2020 it placed fifth in *USA Today's* 10 Best Reader's Choice rankings of aquariums in the U.S.

Located on the banks of the Tennessee River in downtown Chattanooga, the nonprofit public aquarium is home to more than 12,000 animals representing almost 800 species. The aquarium's exhibits are housed in two structures: the original River Journey building and the neighboring Ocean Journey expansion, which opened in 2005.

"You can come to downtown Chattanooga and we can take you to places like Antarctica to meet penguins up close," says Thom Benson, vice president of communications and marketing for the aquarium. "We can take you to the depths of the Gulf of Mexico to see big toothy sharks, and we can show you some of the river giants like lake sturgeon that we're restoring in the Cumberland and Tennessee rivers."

Maintaining a continuous supply of power is crucial for sustaining the environments of so many creatures with unique requirements.

"When it comes to critical power need, we operate on the same level as a hospital," observed Rodney Fuller, director of facilities and safety for the Tennessee Aquarium. "We have about 1.1 million gallons of water that is used to house our aquatic collection. We also have one of the largest collections of turtles and reptiles in the country, along with some mammals. We have to make sure that the environment they live in is as close to what they would experience in the wild as possible. Providing a clean, temperature-controlled environment is very critical, and having reliable power is a big part of that."

In October 2019, the 28-year-old standby generator on the roof of the River Journey building failed, requiring an immediate replacement.

## SOLUTION

Aquarium officials reached out to Stowers Machinery, the local Cat® dealer, to provide a mobile generator set while a permanent solution was determined, as well as a Cat D350 GC diesel generator set for the long term.

"I was very comfortable going straight to Stowers for pricing on a unit that would be a great replacement for the generator set that had been in place for

over 28 years," Fuller explained. "Our selection of Caterpillar is due to the name and the reliability, which are incredibly important to us."

Cat GC generator sets are configured with a mix of common features in a predefined package, offering excellent customer value by delivering performance in a minimal footprint. Compact size was a critical factor for the aquarium, which houses the standby generator in a relatively narrow opening on the roof of the River Journey building. The affordable cost of the generator set was also appealing.

"The aquarium is a nonprofit organization, so controlling costs is very important," Fuller emphasized. "The new model offered us a price break that we were looking for while providing the functionality that we need."

Cat GC generator sets are available with optional sound-attenuated enclosures, which simplify installation.

"We wanted to make sure that that equipment was ready to go and as quiet as possible, because you get sound from the roof that will transfer into some of our aquatic exhibits," Fuller noted.

## RESULTS

The aquarium has experienced several minor outages since the new unit was installed, and it has performed flawlessly.

"I was here when we had a big thunderstorm roll through and the power clicked off, and within 10 seconds the power came back on," Benson recalled. "Our guests will kind of freeze for just a second when the lights go out, but when they come back on very quickly, you haven't even had time to think about what just happened because the power is restored so quickly. And that's a pretty special thing."

The aquarium's facilities staff conducts weekly run tests without load and quarterly tests where the load is transferred and runs critical systems. Stowers technicians conduct thorough inspections and perform preventive maintenance on the Cat generator twice a year under a Customer Value Agreement (CVA).

"We put a lot of pressure on our service providers," Fuller concluded. "We have very high expectations, and the team at Stowers has not let us down."

For more information, [please visit the Caterpillar website.](#)