

POWER PROFILE

Customer: Suburban Propane

Location:

Whippany, New Jersey

Customer Business Issue:

Business continuity

Solution:

G3412 gas generator set

Cat® Dealer:

Foley Power Systems



With nearly 700 locations throughout the U.S., Suburban Propane distributes propane, fuel oil, and refined fuels to more than one million residential, commercial, industrial, and agricultural customers.

POWER NEED

Headquartered in Whippany, N. J., Suburban Propane is a nationwide marketer and distributor of a diverse array of products to meet the energy needs of its customers. Suburban specializes in distributing propane, fuel oil, and refined fuels, as well as marketing natural gas and electricity in deregulated markets.

With nearly 300 full-time employees, Suburban maintains business operations in 41 states, providing reliable service to residential, commercial, industrial, and agricultural customers.

Typically, Suburban's customer service centers are located in suburban and rural areas where natural gas is not readily available. Generally, Suburban's customer service centers consist of an office, appliance showroom, warehouse, and service facilities, with one or more 18,000- to 30,000-gallon storage tanks on the premises.

As with nearly any successful enterprise, the underpinnings of the business started with a problem that required a solution.

In 1928, Mark and Adele Anton left Newark, N.J., to build a home in nearby West Orange. During the construction, Mrs. Anton discovered there were no gas lines near her new house in the country. She had learned to cook with gas, and the idea of using a kerosene or electric range simply didn't appeal to her. One day, while thumbing through trade journals, Mark Anton noticed an advertisement by a company named Rock Gas, which sold propane and the equipment for home installation. He placed the order that ultimately made Mrs. Anton Suburban's first satisfied customer.

Mark Anton realized that others moving to the developing suburbs might enjoy having the same convenience, so he ordered more equipment from Rock Gas and installed several more systems in the neighborhood. With that, the Suburban Gas Company was born.

Following a series of acquisitions through the years and a name change, today Suburban Propane distributes propane, fuel oil, and refined fuels to residential homes and businesses in 41 states.

With 700 locations throughout the U.S. that serve the energy needs of more than one million customers, the central hub at Suburban Propane's New Jersey headquarters can't afford to be down.

The Suburban Propane locations that spread from the headquarters in New Jersey all the way to the Pacific coast need to stay online with the data center to ensure dependable delivery of propane and fuel oil.

"If we lost power completely, our 475 service centers around the country would be impacted because they all are funneled through our data room," says Al Pierce, senior facility manager for Suburban Propane in Whippany, N.J. "If this goes down, everything goes down because everything comes in through our data center."

While the company had an existing generator sized only for powering the data center, the experience gained by going through a seven-day outage following Superstorm Sandy convinced management that more backup power was required to maintain a fully operational building in the event of a prolonged power interruption.

"We needed something to run one building including our data center so that it could house our disaster recovery and all of our business units," Pierce says.

SOLUTION

With the need for additional backup power in mind, Suburban purchased a 400 kW Cat® G3412 generator set in 2014 from its Cat dealer, Foley Power Systems.

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The Cat genset provides backup power to Suburban's Plaza 2 building, which primarily houses information technology and human resources. With economies of scale achieved through technological improvements in the data center, the genset is only required to run at 60 percent of its capacity to provide full power to the Plaza 2 building.

The G3412 genset is traditionally fueled by pipeline natural gas and delivers output of 350 to 500 kW. Suburban Propane's G3412 is capable of running on propane that comes from on-site 30,000-gallon tanks.

"We have ample propane reserves, so the generator has to be able to run on propane," Pierce says.

Suburban Propane's selection of the Cat G3412 generator set reflects a growing nationwide demand for gas-fueled generators based on abundant supplies of natural gas, which represents a significant long-term cost savings over diesel fuel.

As demonstrated by the impact of Superstorm Sandy along the East Coast, natural disasters and other weather-related events are causing more frequent utility power outages, making it paramount to have a backup source of power for data centers and other critical business functions.

Rather than a fixed enclosure, the genset is housed in a mobile container, which is moved into position and hooked up to the building when it is needed. The mobile container provides greater flexibility, Pierce says.

A roll-up generator tap box includes a provisional cam-lock, manual transfer switch and service entrance re-feeds. The advantage of the design is that facility operators can store an abundance of propane fuel to bridge the amount of time required for data center loads until a larger roll-up diesel generator interconnection can be achieved that would pick up the entire Suburban Propane headquarters facility.

RESULTS

Suburban chose Caterpillar due to its reputation for quality and reliable performance.

"One thing we wanted was a reputable brand name, and Caterpillar certainly fits the bill," Pierce says. "And Foley Power Systems is nearby—they are about 20 miles away, so the service is close."

Suburban has a Customer Value Agreement with Foley. Technicians provide quarterly maintenance and inspect the generator set, as well as conduct an annual full load test. In addition, Suburban conducts its own building load test once a year as part of a disaster recovery drill.

"We have a great relationship with Foley," Pierce says. "They were excellent in helping us determine our needs and size the generator set up to match our requirements. And they are always on time and always call ahead before their PM service."

"We like Foley because we know we can count on them for prompt service, much like our customers count on us for prompt delivery of fuel."



Technicians from Foley Power Systems provide quarterly maintenance and inspections as well as an annual full load test as part of Suburban Propane's Customer Value Agreement.