

POWER PROFILE

Customer: West Coast Tomato Growers

Location:

Oceanside, California, USA

Customer Business Issue:

Standby power generation for 350-acre tomato farm

Solution:

- One Cat® XQ1000 diesel generator set
- One Cat XQ600 diesel generator set
- One Cat XQ60 diesel generator set

Cat® Dealer:

Hawthorne Power Systems



During the peak season, West Coast Tomato Growers' employees pack 8,200 boxes of vine-ripened tomatoes per hour to be shipped by 50 refrigerated trucks bound for destinations across the country.

POWER NEED

Harry Singh Jr.'s family has a 70-year history of farming and growing high-quality tomatoes in northern San Diego County.

The family previously grew vine-ripened tomatoes on more than 925 acres of land that they owned and leased in Oceanside, Bonsall and Camp Pendleton. In 2011, a swath of 350 acres of land leased by the Singhs from the military base along Interstate 5 was returned, ending a legacy of contract farming with the U.S. Marines.

Up until that time, Singh Jr.'s Oceanside Pole Tomato Sales Inc. was the largest tomato grower in the country. But in 2012, the business was reorganized to reflect the growing tide of imports from Mexico, along with rising fuel, labor and water costs and reopened as West Coast Tomato Growers (WCTG).

Today, tomatoes grown in Oceanside enjoy the benefits of the warm, coastal microclimate. The pole technology keeps the tomatoes off the ground and in pristine condition, leading to rich flavor and longer shelf life. After harvest, the tomatoes are sorted and shipped the same day by approximately 50 refrigerated trucks.

"The spot where the farm sits is a wide-open area and when the Santa Ana winds kick in, that is where a fire is likely to hit," said Jim Letizia, Hawthorne Power Systems rental representative. "When a fire does hit, the authorities cut off the electricity, so WCTG needs that reliable standby power to keep their sprinklers on and not lose their crops."

To guard against power loss, which can derail production and result in shipping delays and spoilage, WCTG looked for a partner to provide a reliable source of standby power. The system needed to ensure that the production line – and all the critical packing and refrigeration functions associated with it – kept moving.

"Because we have a perishable commodity, it is important that we don't go down," said Russ Mosier, WCTG maintenance supervisor. "We have had people drive off the road, hit the main transformer and knock out the power at our

facility for up to eight hours. When Cal Trans was rebuilding the highway that runs next to our facility, sometimes we experienced power interruptions as a result of that work."

SOLUTION

From the greenhouse to the field, where the Oceanside pole tomatoes ripen and are harvested by a seasonal crew of 500 local and migrant workers, the WCTG operation is a well-oiled machine.

To not miss a beat, Singh Jr. turned to his local Cat dealer, Hawthorne Power Systems, for three Cat diesel generators rented seasonally to ensure WCTG receives uninterrupted power throughout the growing season.

Hawthorne supplied WCTG with rental generator sets servicing various operations throughout the facility. One Cat XQ1000 diesel generator set backed up the packing shed, while a second Cat XQ600 supplied standby power to the refrigeration warehouse. A third Cat XQ60 generator set supplied prime power to a maintenance facility.

In the packing house, an automated conveyor sorts tomatoes by color and size, then gently drops them in place for packaging. During peak season, as many as 300 people pack 8,200 boxes of tomatoes per hour.

At the 27,000-square-foot refrigeration warehouse, the Cat XQ600, rated at 600 eKW, ensures that the temperature inside is a constant 55 degrees to help maintain the fruit's vibrant color. "The vine-ripened tomatoes are picked, packed and shipped on the same day, so cooling is essential to product quality," said WCTG Operations Manager, David Singh.

"We don't want tomatoes to be stored too warm or too cold in the storage area," Singh said. "So, it's crucial that we maintain a certain level of cooling to preserve the quality."

"WCTG's ozone system is tied in with the wash tanks, that kill any germs that might be present," Mosier said, adding that if power is lost, the system stops working and the product is compromised.

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The Cat XQ60 supplies prime power to the equipment and maintenance shed. With no power lines running to the new maintenance shed, the 60 kW generator runs for 8 to 10 hours per day.

During packing season, which takes place during the warmer months, there are occasional power brownouts and blackouts. The Cat XQ1000 and XQ600 ensure that WTCG has continuous power and automatically come on within 7 to 10 seconds of a power interruption.

"With perishable food, if you go down for a day, you're in real trouble," Mosier said. "It's like having insurance on a car – the one time you get in an accident, it pays for itself. That's basically what these generators are – insurance for us so we don't lose any products or production time."

RESULTS

WTCG depends on Hawthorne to provide seasonal rental power in run-ready condition guarding against costly production loss.

"I call them, and they are right there to give us what we need," Mosier said. "Since we partnered with Hawthorne, they have provided us with rental diesel generators that are set up real well. They send an experienced technician who makes sure that everything is functioning properly."

WTCG hired an electrical contractor to establish permanent connections at its newest facility. When the grower rents a generator set from Hawthorne, the outside connection is already set up, so it's simply a matter of pulling up a generator outside and hooking it up, according to Mosier.

"It's comforting to know that we have a standby power supply for each critical area, and we would rather have that additional security and not need it," Singh said. "Sometimes our utility company will conduct rolling blackouts, so you never know when they will occur, and we don't want to be caught flat-footed without a backup power supply. With help from Caterpillar and Hawthorne, no critical production time is lost."

For more information, please visit cat.com/powergeneration



One Cat® XQ1000 diesel generator set provides backup power to the main packing shed where the temperature is set at 55 degrees in order to help maintain the fruit's vibrant color.