

## GREENER POWER

**THE GOAL** A greener approach to power solutions.

- FREQUENT CHALLENGES**
- Meet sustainability standards
  - Consistent, reliable power
  - Better than 1:1 generator run to battery run ratio
  - Multiple trailers

**THE SOLUTION** One of the top electrical contractors in Texas was challenged by their general contractor to go greener with their onsite job trailers. The contractor turned to HOLT Industrial Rentals after a previous attempt at fulfilling the need had proven inconsistent for the customer.

After testing the power needs of the 5-trailer setup, our team concluded a hybrid solution of a diesel power generator – for instant, anytime power – coupled with a battery energy storage system – for optimizing power storage and long term usage – would provide a greener solution without sacrificing reliability.

The rental package included a Cat® XQ230 diesel generator, HOLT Industrial Rentals 250-575 Battery Energy Storage System (BESS), step down transformer and cables. This solution has resulted in a better than 4:1 run ratio, with the generator running only four hours in a 24 hour time frame.

**DID YOU KNOW?**

Although used in tandem with a generator to fulfill the needs in this case, the HOLT Industrial Rentals 250/575 BESS can also work in island mode or in parallel with more energy storage systems. The system is built to work in a wide array of environments, with a wide operating range from -4° to 122° F. All while delivering a solution with zero CO2 emissions, zero noise, and zero maintenance needs within a footprint of only 9.81 x 8 feet.

**EQUIPMENT UTILIZED**



**Cat® XQ230**  
Standby 200 kW, 250 kVA  
Prime 182 kW, 228 kVA  
U.S. EPA Tier 4 Final  
60 Hz  
1800 RPM



**HOLT Industrial Rentals Energy Storage System 250-575**  
Lithium ion  
250kW / 250 kVA  
576 kWh  
50Hz  
480 VAC, 768 VDC  
60 Hz  
1800 RPM

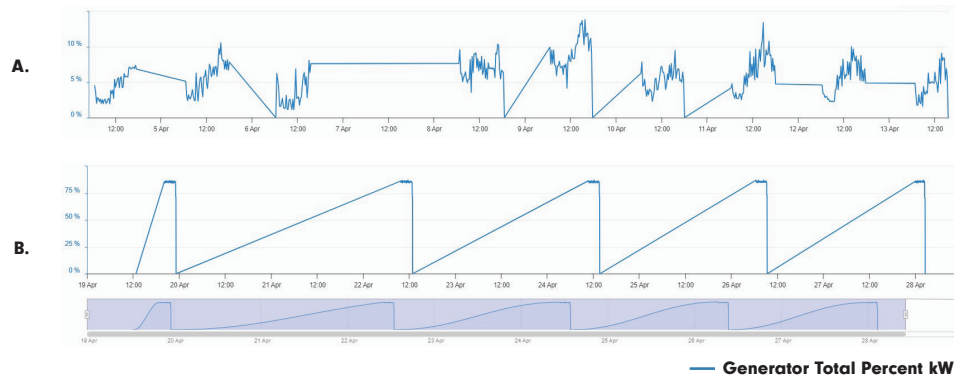
Comparing the original set-up to the new hybrid generator/battery set-up, the customer saw monthly savings of 150+ gallons of fuel and generator runtime decreasing from 48 hours down to 12 hours. We are also able to load the generator to a better load profile to prevent instances of wet stacking and regen issues.



***“With our team always testing and sourcing the newest power options, we are proud to be greener than ever.”***

— Justin Merkys, HOLT Industrial Rentals - VP Power and Specialty Rental

Although deployed in this case for a long term job site solution, BESS set-ups (whether island or hybrid) are also ideal for short-term power needs like expected power outages, short-term projects, or special events. These scalable power solutions are not only instantly available but also align with green energy goals by reducing reliance on fossil fuels.



The generator without the battery (image A.) shows fluctuating kW and operates at a low load, which is not ideal for tier 4 engines as it can lead to shutdown faults over time. While a smaller generator could be used, the customer plans to add more load, necessitating frequent generator changes. In contrast, the generator with the battery (image B.) demonstrates a more stable load profile, allowing for full loading, which is better for both the engine and the generator overall.