



CASE STUDY:

Partnering for Power

HYBRID BATTERY SOLUTIONS IN TANDEM WITH THE CAT DEALER NETWORK

THE GOAL Provide scalable, hybrid battery rental solutions for clean power that's green and efficient – executed through the nationwide CAT dealer network

- CHALLENGES**
- Integrating multiple batteries in parallel with generators.
 - Operating efficiently in extreme hot and cold temperatures.
 - Meeting variable customer demand over longer periods of time.

THE SOLUTION HOLT Industrial Rentals executed in partnership with the Cat Dealer Network to support the power needs of a massive, multi-year semiconductor construction project. With no utility power available on-site, the project relied entirely on temporary power solutions to operate its 40 portable job trailers used by contractors and subcontractors.



Hybrid Battery Energy Storage System (BESS) Integration

HOLT Industrial Rentals installed a 2mW diesel generator together with four 250KW / 575kWh battery units, these batteries installed in parallel created a hybrid and scalable power solution which allowed the generator to reduce runtime and fuel consumption rather than operating around the clock.

This hybrid setup created a 3:1 run ratio, meaning for every 24-hour period, the generator only operated for 6 hours while the battery system powered operations for 18 hours. The result was a dramatic reduction in fuel consumption, lower emissions, reduction in noise levels, and significant cost savings.

To ensure safe and efficient power distribution, HIR also designed a custom 6000-amp breaker system with advanced safety features. This breaker played a crucial role in managing high-power loads, ensuring that energy was distributed efficiently across the job site while protecting the system from potential electrical faults.

Power, Compressed Air, Temperature Control

SOLUTIONS BUILT ON TRUST

We source power solutions from The Cat® Dealer Network.

HoltIndustrialRentals.com 844.660.RENT (7368)

© 2025 HOLT Industrial Rentals. All rights reserved.

EQUIPMENT UTILIZED

**HOLT Industrial Rentals
Energy Storage System
250-575**

Lithium ion 250kW/250 kVA
 576 kWh
 50Hz
 480 VAC, 768 VDC
 60 Hz
 1800 RPM


**Caterpillar Diesel
Power Generators**

Rating Prime: 1825 kW
 (2280 kVA)
 Frequency: 60 Hz
 Voltage: 480/277 V


6000 AMP Disconnect

Frequency: 50/60 Hz
 Voltage: 254V/508V/635V


3000 Amp ATS Units

Frequency: 50/60 Hz
 Voltage: 254V/508V/635V

Flexibility & Scalability

The solution started with two batteries and has since scaled to four, demonstrating its adaptability as the project's energy needs grow.

Additional batteries can be integrated as demand increases, providing modular expansion based on power requirements.

“By utilizing hybrid battery technology, we’ve given this customer a scalable, fuel-efficient power solution that significantly reduces generator runtime and fuel costs. This is the kind of innovative energy solution HOLT Industrial Rentals specializes in.”

– Brian Rice, Director of Operations, HOLT Industrial Rentals

DID YOU KNOW?

The semiconductor industry is one of the most power-intensive industries in the world, with large fabrication plants consuming up to 100 megawatts (MW) of electricity – the equivalent of a small city's power demand. By integrating hybrid battery systems, construction sites can significantly cut fuel consumption and reduce carbon footprints before permanent utility power is established. The CAT dealer network, with support from HOLT Industrial Rentals, enables large-scale projects to transition toward more sustainable power solutions while maintaining operational efficiency.