

## CASE STUDY:

# BRIDGING THE POWER GAP: INDEPENDENT POWER PRODUCER DELIVERS RELIABLE OFF-GRID POWER

### CUSTOMER

HiVolt Energy

### LOCATION

Permian Basin

### SOLUTION

XQ1475G, XGC1900, G3520 gas generator sets; PGS1260 Module

### SCOPE OF USE:

Off-Grid Power

## CAT® NATURAL GAS ENGINES IN CONTINUOUS PRIME POWER APPLICATIONS ARE AN IDEAL FIT FOR REMOTE, OFF-GRID ENERGY NEEDS.

In a world increasingly shaped by electrification and industrial growth, HiVolt Energy is an independent power producer (IPP) that has quickly earned a reputation for reliability, operational excellence, and forward-thinking solutions—particularly in support of the oil and gas sector.

Based in Midland, Texas, HiVolt Energy is redefining how industrial users access reliable, off-grid power. HiVolt combines deep industry experience, advanced microgrid design, and unwavering dealer support to deliver unmatched performance.

CEO Josh Evans, a veteran power systems consultant, saw the problem firsthand: industrial users struggled to secure quality power in remote regions.

“I was seeing big oilfield customers building their own systems,” he recalls. “The utility model just wasn’t built for these dynamic demands.”

In 2019, Evans and his team created HiVolt to fill that gap—designing and operating dedicated microgrids that bring continuous, utility-grade power wherever it’s needed.

Today, HiVolt serves oil and gas producers across the Permian Basin and is expanding into data centers and other industrial sites—anywhere long-term, large-scale, prime-power is needed.

The business model is powerful. Every HiVolt facility is built, owned and operated by the company itself. This approach delivers a simple and derisked solution to customers.

“We only build facilities that we own and operate,” Evans says. “That’s what makes us different—and better positioned to deliver results.”

These installations aren’t temporary power solutions—they’re long-term, hardened systems built for continuous operation and scalability.

### The Power Backbone

Cat® generator sets provide durability, performance, and adaptability in continuous-duty applications, and are the backbone of HiVolt’s off-grid power systems. Early installations relied on the Cat XQ1475G, a reliable natural gas generator ideal for prime power. As load requirements have grown, the company expanded to include Cat XGC1900 and Cat G3520 gensets.

The latest G3520 units are being delivered on custom skid packages designed in tandem with Warren Cat, HiVolt’s trusted Cat dealer.

More than a supplier, Caterpillar and Warren Cat play key roles. Warren Cat provides packaging, commissioning, maintenance, and warranty service—helping HiVolt scale quickly and reliably.

“Warren Cat and Caterpillar have been instrumental to our success,” Evans emphasizes. “They deliver the gensets, help with commissioning, and support ongoing service and maintenance. Their flexibility allows us to grow with confidence, and they’ve helped us build this from the ground up.”



## MICROGRIDS AND BATTERY INTEGRATION

HiVolt is pushing boundaries by integrating battery storage into its microgrids. The company uses assets like the Cat PGS1260, a 1 MW/30-minute battery that stabilizes loads and supports transient operations.

“Batteries help to stabilize the system,” Evans explains. “We’ve developed proprietary methods to apply battery technologies that dramatically increases reliability.”

Although HiVolt currently relies on its own PLC-based controls, the team is exploring further integration of Cat microgrid technologies such as the ECS 400 Energy Control System to enhance efficiency and scalability.

### Strategic Alliance

HiVolt’s relationship with Caterpillar extends beyond equipment—it’s a true collaboration that fuels growth and innovation.

Caterpillar market development specialist Denzil Cotera plays a vital role in keeping HiVolt ahead of demand.

“Denzil helps us with availability, deliveries, and new technologies,” Evans says. “He’s been a fantastic partner.”

This strong dealer relationship ensures rapid response, expert service, and unmatched reliability—cornerstones of HiVolt’s operating philosophy.

“Warren Cat’s support team is like having an extension of our own team,” Evans says. “They’re essential to keeping our systems running at peak performance.”

HiVolt’s core value proposition—delivering utility-grade power independent of the grid—applies equally to remote well sites and high-tech data hubs.

“Our focus is simple: deliver reliable power solutions,” Evans says. “Whether it’s in the oil field or a data center, uptime and reliability come first.”

### Proven Performance

HiVolt’s disciplined approach has paid off. Many customers are repeat clients, expanding their facilities or referring others who need dependable, off-grid power.

**“BATTERIES HELP TO STABILIZE THE SYSTEM. WE’VE DEVELOPED PROPRIETARY METHODS TO APPLY BATTERY TECHNOLOGIES THAT DRAMATICALLY INCREASES RELIABILITY.”**

– CEO Josh Evans,  
*HiVolt Energy*

