



Slash Costs & Carbon— How Microgrids Maximize Efficiency with Smart Power Management

THE CHALLENGE

Operating generators is expensive—not just in fuel, but also in maintenance. To handle peak demand, generators are often oversized, leading to inefficiencies.

At one 24/7 job site, a large diesel generator powered a low average load, burning hundreds of gallons of fuel each week. This not only drove up costs but also emitted tens of thousands of pounds of CO₂. Frequent idling and inefficient fuel burn wasted resources, accelerated wear and tear, and increased maintenance expenses—making the setup both costly and unsustainable.

THE OPPORTUNITY

Integrating a **battery microgrid** cut diesel fuel consumption by over 50%, reduced generator runtime and maintenance, and improved reliability and efficiency—all while achieving a rapid return on investment **in just days**.

THE SOLUTION

Over a 16 day period, Viridi’s Mobile microgrid drastically reduced site reliance on diesel. Four **RPS150 BESS** powered the site 74.6% of the time, recharging occasionally from the generator (without interruption to the load) and saving over **50%** of fuel and emissions.

Discover the full story— contact us now.

1001 East Delavan Ave. | Buffalo, NY 14215 | (716) 968-8658
sales@viridiparente.com | www.viridiparente.com

Specifications subject to change without notice. | © 2025, Viridi Parente, Inc. All rights reserved. Manufactured in Buffalo, NY. Viridi is a trademark of Viridi Parente, Inc., registered in the U.S. and other countries and regions. Information as of January 2025.



INDUSTRY

Construction Sites,
Movie Sets, Sporting
Events, Food Truck
Derbies, Stationary
Generators, Events

IMPLEMENTATION

- (4) Viridi RPS150 systems
- (1) 150kW Diesel Standalone Generator
- ViSTA® VCom IoT for remote monitoring and management
- Harness Fuel Consumption Arbitrage

RUN HOURS

- Batteries supported the load 74.6% of the time (286 of 384 hours over 16 days)
- Diesel generators charged batteries at peak efficiency in 5 hour bursts with no interruption to the load
- This greatly reduced noise and cut fuel consumption and emissions by more than 50%

THE RESULT

With cleaner, more reliable energy, the site cut fuel costs, reduced emissions, and extended generator life—lowering O&M expenses and proving battery microgrids as a game-changing alternative to diesel.

- *Reduced 286 hours (74.6%) of low efficiency run time*
- *Fuel Consumption: Generator runs only to charge the BESS, avoiding inefficient operation at partial loads saving fuel and emissions*
- *496 gallons of diesel saved per week (2,132 per month)*
- *\$2,108 saved per week (\$9,064 per month)*
- *11,160 lbs of CO₂ avoided per week (48,988 per month)*

