

Strack & Van Til

Food Retailer

The Challenge

Strack & Van Til, a prominent Midwest grocery chain, has prioritized sustainability in its operations for over a decade, actively working to reduce greenhouse gas (GHG) emissions, conserve resources, and minimize waste. However, the company faced persistent energy challenges that threatened both its sustainability goals and business continuity. Frequent grid outages disrupted operations, resulting in spoiled food and lost sales—issues that were especially costly during extended outages, where losses could reach millions in spoiled inventory.

Rising utility costs also underscored the need for a more energy-efficient solution to cut expenses and increase operational efficiency. Additionally, Strack & Van Til required a system that could adapt to seasonal demands, providing heating in winter and cooling in summer to maintain consistent energy use. Their objectives included reducing utility costs, enhancing energy reliability, and supporting critical loads during outages, while also leveraging the Investment Tax Credit (ITC) to make the project financially feasible.

Power Profile

Customer

Strack & Van Til Food Market

Location

Highland, Indiana

Commissioned

August 2024

Fuel

Pipeline Natural Gas

Technologies

- (2) C65 Microturbines
- · Vergent Custom Crontroller
- World Energy 100-ton absorption chiller

Capstone Green Energy Distributor

Vergent Power



This project is a key part of Strack & Van Til's sustainability commitment, demonstrating the power of distributed energy resources to support critical business operations, lower utility costs, and advance corporate sustainability goals. It sets a new standard for energy resilience in the grocery sector, proving that innovative energy technologies can deliver substantial financial and environmental benefits."

— Don L. Erminger, Director of Facilities and Energy Strack & Van Til





Two C65 ICHP microturbines installed at Strack & Van Til Food Market in Highland Indiana provide reliable power and to essential systems like refrigeration and check-out counters, ensuring uninterrupted critical functions.



The Solution

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To address Stack & Van Til's energy challenges, Capstone Green Energy distributor Vergent Power implemented a resilient combined cooling, heating, and power (CCHP) microgrid powered by two ICHP C65 microturbines. This advanced system is designed with dual-mode capabilities, enabling it to seamlessly transition from grid-connected to standalone operation during power outages. In standalone mode, the microturbines provide reliable power to essential systems like refrigeration and check-out counters, ensuring uninterrupted critical functions.

The microturbines not only generate electricity but also efficiently produce thermal energy, maximizing energy use throughout the year. In summer, the system's hot water output dehumidifies the store and powers air conditioning via a 100-ton absorption chiller. During winter, this thermal energy is redirected for heating, significantly reducing natural gas consumption. This seasonal adaptability makes the system ideal for grocery stores, which typically have fluctuating energy needs and are often not considered optimal candidates for CHP. This flexible, efficient design allows Strack & Van Til to achieve consistent energy efficiency, operational reliability, and cost savings.

The Results

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This project proves that a well-designed CCHP system can significantly boost energy resilience and efficiency in retail environments. The Capstone-powered system is scalable, offering a replicable solution for other grocery stores in the Midwest facing similar challenges with power outages. The system also ensures uninterrupted operations during power disruptions, preventing financial losses from spoiled goods and halted transactions.

Additionally, the system's efficiency is significant, as it recovers thermal energy for multiple uses, including refrigeration cooling, heating, and dehumidification, effectively addressing the unique energy demands of grocery stores.

Capstone C65 ICHP Microturbine



A C65 Microturbine provides up to 65 kW of electrical power while the UL-Certified provides up to an additional 150 kW of thermal power for CHP and CCHP applications.

