MIKE HESS BREWING

Craft brewery uncaps refreshing savings while keeping up with demand

Location: San Diego, CA

Production Capacity: 30 bbl. brewery

Customer Challenge
Reduce demand charges without impacting operations.

GridSynergy® Solution
Software-controlled energy storage system

Why ENGIE Storage
- No up-front capital or maintenance
- Clear demonstration of projected savings
- No disruption to operations
- Flexible and space efficient installation

Benefits
- 35% reduction in demand charges
- Mitigated costs associated with spikes in brewing operations
- Safeguard against rising San Diego demand charges

> "Other than reviewing the initial contracts, finding a spot and walking the floor, it took very little of my time or my crew's time."
>
> – Mike Hess, Founder and Chief Brewing Officer, Mike Hess Brewing

After 15 years of home brewing, Mike Hess turned his hobby and passion for beer into a successful business. Starting out in 2010 with a small "nano" brewery in the Miramar area of San Diego, the business soon matured into a sizable craft beer operation.

In 2012 the 12,500 sq. ft. North Park facility was opened with 30 bbl. of production capacity featuring a family-and pet-friendly tasting room. Patrons can pick from 26 different beers across 14 different styles. As the first brewery in San Diego with a canning line, Mike Hess beer is directly shipped out to the greater Southern California region with plans underway to move north.

"As a brewery owner, managing three facilities and over 40 employees–with everything that goes on in running a manufacturing operation–there are a lot of demands on my time," says Mike Hess, Founder and "Chief Brewing Officer" of Mike Hess Brewing. Every component of the beer making process stands to benefit from a bit of scrutiny; for a hands-on owner, priorities must be in order.

"We always have beer fermenting," says Hess. To ensure operations remain efficient as the business grows, industry best practices are in place at the company's facilities. Everything from chilling units to air compressor PSI settings are calibrated for maximum efficiency. Despite these efforts, like an unforgiving hangover, expensive end of month demand charges still weighed on the company's electric bills.

SWEET SPOT FOR STORAGE

At present, the craft brewing industry is known for three things: great beer, innovation and unprecedented growth in demand. To foster collaboration in this growing industry, brewing conferences have begun to spring up all over California. It was at one of these events that Hess was introduced to the benefits of energy storage–in a few short months, a GridSynergy® system would be up and running at the North Park brewery.

"We are in the sweet spot for SDG&E as far as power charges go," admits Hess. ENGIE Storage walked him through commercial demand charges levied by the utility. Based on the highest 15-minute spike in power demand for the month, an additional dollar amount per kilowatt is charged every month—adding thousands to brewery electric bills. San Diego is home to California's highest demand charges, where rates have gone up by over 180 percent in the past decade.

"In our brewery there are pumps, chillers, air compressors, and even an elevator—all creating a lot of power demand," says Hess. Using a year's worth of data provided by the local utility, ENGIE Storage was able to clearly demonstrate how an intelligent storage system would save on energy costs.

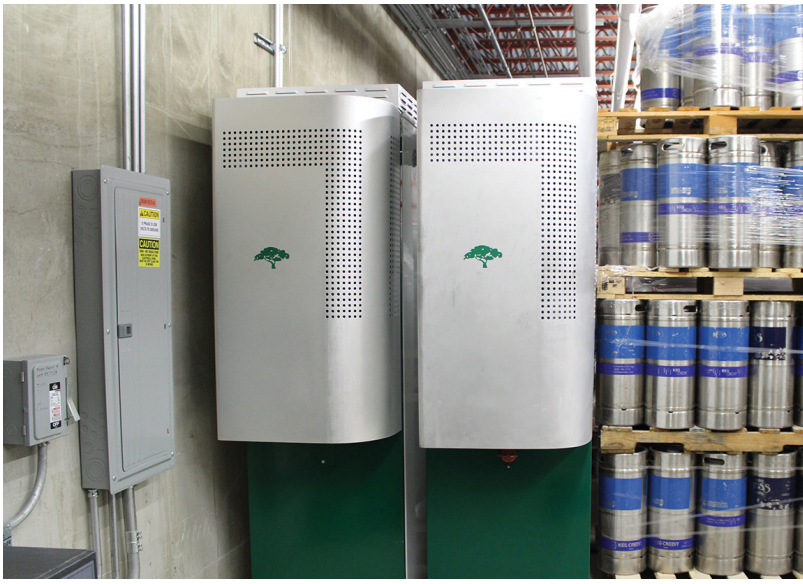
Smart control software signals a discharge of the Li-Ion batteries when demand is high and power expensive. During periods of low demand, the system recharges. On average, energy storage at the North Park brewery is projected to reduce demand charges by 35 percent.

SPACE EFFICIENT AND COST DEFICIENT SOLUTION

If up-front costs are high, coming up with the necessary capital can be difficult. "We are not out of pocket; we are on the shared savings plan. Not having to come up with capital was a big deal for us," Hess says. The shared savings model, known as a Power Efficiency Agreement (PEA), lets customers skip on cost and performance risk. For a share of the savings, ENGIE Storage owns, operates, and maintains the system for Mike Hess Brewing Company over a ten-year term.

While the PEA was being signed and an appropriately scaled system was readied, the search for a perfect spot continued in the background. With space being a vital resource at the North Park brewery, minds kept changing. Thankfully, the system's flexibility in operating environments opened up a variety of possibilities. Indoors or out, on the roof or in the basement—all options were on the table.

Eventually the basement was selected. The 30 kW/60 kWh energy storage system now takes up a spot equivalent to one shipping pallet. The installation process was quick and offered no disruption to brewing operations. In a matter of hours, the system was in place. "What I really appreciate about this whole process is that other than reviewing the initial contracts, finding a spot and walking the floor, it took very little of my time or my crew's time," notes Hess.



A 30 kW/60 kWh GridSynergy system, located in the basement of Mike Hess Brewing's North Park brewery, mitigates spikes in power demand caused by daily operations.

KEEPING UP WITH DEMAND

Mike Hess Brewing now has an effective tool to combat rising demand charges. Staff at the North Park brewery can focus on the growing demand for quality craft beer while the intelligent energy storage system protects against costly spikes in power demand.

4151 Burton Drive Santa Clara, CA 95054
800.426.5010 (Toll Free) 408.638.0072 (Local)
info@engiestorage.com

About ENGIE Storage
ENGIE Storage helps power the world more efficiently and sustainably. As the nation's number one distributed energy storage company, we serve energy producers, distributors, and consumers, including utilities, network operators, and energy consumers in business and government.