

Case Study: Saint-Gobain

Global Building Materials Leader Finds Effortless Savings with AI-Powered Storage



For over 350 years, Saint-Gobain has operated as one of the world's largest building materials companies and manufacturers of innovative material solutions. Originally founded in France during the reign of Louis XIV, the company maintains a 230,000 square foot manufacturing plastics plant in Garden Grove, California that crafts critical sealing and polymer parts for high-performance aerospace and space rocket technology. The plant is full of energy-intensive equipment, including injection molders, conveyor systems, semiconductors, and chillers.

Operating six days a week, Saint-Gobain's energy bills add up to become a topline expense, especially with summer demand spikes from heat waves and wildfires. By identifying opportunities for optimization within its energy infrastructure, Saint-Gobain gains access to new cash flows that can be leveraged for key strategic initiatives. A culture of innovation and sustainability led the company to Stem's energy storage service powered by Athena, the world's first artificial intelligence (AI) for energy storage.

“ Stem's artificial intelligence, backed by long project development experience, is in line with the innovative technology spirit that we celebrate at Saint-Gobain, which helps us adapt to changing electricity rates and markets.

Ryan Spies

Director of Energy, Sustainability and Stewardship, Saint-Gobain

”

Location

Garden Grove, CA

Facility Type

Chemical & Material
Manufacturing

Solutions

Energy Storage, Utility
Bill Optimization, Demand
Response, Sustainability

Energy Storage System Size

500kW / 1000kWh

10-year Savings

\$285K

Stem Operational Date

July 2018



Challenge

Despite energy efficiency upgrades, operating heavy machinery throughout the plant still creates excessive heat that's expensive to control. Additionally, equipment start-up at the beginning of shifts can create huge demand spikes. With strict production demands to meet, Saint-Gobain can't afford to restructure operations just to manage time-of-use charges on the plant's energy bill.



Solution

Athena learns the facility's energy usage patterns and then manages its grid reliance automatically, activating the battery system before costly demand spikes occur and shielding Saint-Gobain from unnecessary costs. All of this happens without interrupting operations, requiring no capital outlay while generating new cash flows.



Results

With Athena, Saint-Gobain not only automatically saves on its operation costs but also its facilities team now gains deeper insight into the plant's energy use. And when signaled by the grid, the facility's energy storage system earns additional revenues via demand response participation and allows the grid to reduce reliance on expensive, high-polluting forms of electricity.

To learn more about Stem's solutions, contact stem.com/contact-us.