

## case study

# MANUFACTURING FACILITY

Nebraska Manufacturing Facility Turns to Energy Toolbase's ETB Controller to Offset High Demand Charges and Optimize Bill Savings

## THE CHALLENGE

GenPro Energy Solutions, an energy provider based in Piedmont, South Dakota, has been using Energy Toolbase's modeling software, ETB Developer, for over seven years to design solar projects and calculate avoided costs. When tasked with optimizing energy usage and reducing electricity expenses for a manufacturing facility in Gering, Nebraska, GenPro encountered new challenges. Despite the facility having an 858 kW PV array, it struggled with high peak demand charges and inefficient energy management, leaving significant savings on the table. To address these issues, the facility needed an energy storage system (ESS) paired with intelligent control software to better manage energy demand during peak hours.

## THE SOLUTION

To overcome these challenges, GenPro partnered with Energy Toolbase to implement an ESS integrated with ETB Controller, focusing on maximizing energy savings through effective demand charge management. Using ETB Developer to model the project and potential savings of various system sizes and hardware options, GenPro purchased ETB Controller to optimize savings and reduce demand in the field paired with three 120 kW/258 kWh 2-hour BYD CHESS energy storage units purchased directly through Energy Toolbase. The batteries are programmed to dispatch energy once the site's metered demand reaches a threshold precisely calculated by ETB Controller, based on the facility's load and demand charges. Additionally, ETB Monitor offers real-time performance insights, ensuring the ESS operates efficiently while enabling timely adjustments to optimize system performance. This deployment marked a significant milestone—Energy Toolbase's first ESS project in Nebraska and GenPro's first time using ETB Controller alongside an energy storage system deployment.

## PROJECT SUMMARY



### LOCATION

Gering, Nebraska



### DEPLOYMENT DATE

July 2024



### ESS PROVIDER

BYD



### SYSTEM SIZE

360kW/774kWh



### FACILITY TYPE

Manufacturing Facility



### EMS APPLICATIONS

Demand Charge Management



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