

case study

CRITICAL OPERATIONS FACILITY

ETB Controller with Acumen AI™ Deployed at San Diego Critical Operations Facility

THE CHALLENGE

Solar Optimum, a California-based solar installer, needed a solution for its client, a commercial real estate investment firm, capable of reducing electric bill costs at a critical operations facility in San Diego, California. Although the facility has a robust 275 kW solar PV array, it struggled to manage energy consumption effectively. The solution required an energy storage system (ESS) capable of charging during low electricity price periods and discharging during high-price periods, along with advanced control software to further optimize its performance in reducing demand during peak hours.

Solar Optimum was looking for a partner that could rapidly procure the system, deliver advanced operational software, and provide support throughout the project lifecycle. Our proven success in the California market and ability to deliver measurable savings gave Solar Optimum the confidence to partner with us for a tailored solution.

THE SOLUTION

Solar Optimum partnered with Energy Toolbase to deploy an ESS integrated with ETB Controller and Acumen AI, leveraging time-of-use (TOU) arbitrage as the primary control strategy. Energy Toolbase's direct hardware and software partnership with BYD allowed for seamless integration, using BYD's CHESS unit alongside ETB Controller. Energy Toolbase being a certified BYD reseller, this approach allowed for a rapid turnaround from procurement to commissioning.

The system includes a 120 kW/258 kWh 2-hour BYD CHESS unit paired with the facility's existing 275 kW solar PV array. Monitoring is provided through Energy Toolbase's ETB Monitor, allowing the customer to track system performance, oversee operational efficiency, and adjust as needed to maximize savings and the value of their asset.

PROJECT SUMMARY



LOCATION

San Diego, California



DEPLOYMENT DATE

August 2024



ESS PROVIDER

BYD



SYSTEM SIZE

120kW/258kWh



FACILITY TYPE

Critical Operations Facility



EMS APPLICATIONS

TOU Arbitrage



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