

## case study

# MAUI BEACH HOTEL

Maui Beach Hotel Deploys a Delta Energy Storage System for Self-Consumption and Demand Charge Management



## THE CHALLENGE

Many hotels in Hawaii, among other commercial buildings, have installed rooftop solar photovoltaic (PV) systems to combat high electric rates and contribute toward the state's renewable energy goal of 100% by 2045. The Maui Beach Hotel, an oceanfront facility built in 1968 with 147 guest rooms, has spent several years investing in property renovation and upgrade projects. One upgrade project includes installing a 303 kilowatt (kW) solar array near the hotel's rooftop pool. In Hawaii, businesses generally install solar in order to reduce their electric utility expenses, which have the highest dollar-per-kilowatt-hour retail rates in the country. However, the value of solar is reduced significantly in Hawaii because of the island's successor net energy metering (NEM) programs, which attributes very little value to exported solar production. As a result, standalone solar applications in Hawaii either receive a big haircut on the value of solar produced or are forced to size small relative to site load to prevent grid exports.

## THE SOLUTION

The Maui Beach Hotel made an intelligent choice when they decided to retrofit an energy storage system (ESS) to their existing solar array to maximize bill savings and capture the full value of their PV production. By adding storage, the hotel could self-consume more of its solar production at the lucrative rate of over 40¢ per kilowatt-hour (kWh) and become less dependent on Maui Electric Company in the process. The hotel deployed an 85-kW Delta/Samsung energy storage system, that was delivered integrated with Energy Toolbase's Acumen EMS™ controls software. In addition to self-consumption, the system was configured to perform demand charge management, which leverages Acumen's machine-learning algorithms to forecast demand spikes and shave peaks, resulting in demand charge savings for the customer. Maui Electric's rate schedule J features demand charges of \$13 per kilowatt. This is the first Acumen EMS storage project deployed in Hawaii.

## PROJECT SUMMARY



### LOCATION

Kahului, Hawaii



### DEPLOYMENT DATE

August 2022



### ESS PROVIDER

Delta/Samsung



### COMBINED SYSTEM SIZE

85 kW/176 kWh  
1 site



### FACILITY TYPE

Hotel



### EMS APPLICATIONS

Self-Consumption &  
Demand Charge Management



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