

# HAWAII BANKS ON SOLAR

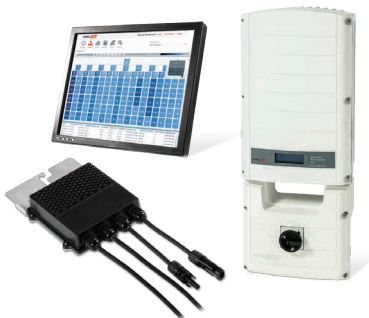
- ▶ Bank of Hawaii
- ▶ Honolulu, HI, USA
- ▶ 104kW



The project used 348- 300W LG 60 cell modules – some of the highest efficiency modules on the market – paired with OP300 3NA Power Optimizers and 5 SE20k inverters to put as much power on the rooftop as possible.

**“With SolarEdge, we were able to install 25% more modules in areas that would not have made economic sense for a traditional string inverter.”**

> Josh Mason, HEC



Trying to design solar projects in a downtown area can be complicated. Available rooftop space is limited compared to the electrical load that the building represents and shading from air-conditioning, HVAC units and other buildings is often a problem. From Helicopters to Optimizers, in building the Bank of Hawaii project, Hawaii Energy Connection used many innovative approaches to achieve a world class design.



Bank of Hawaii- Access to the rooftop was a challenge. The team required helicopters to lift all materials to the installation site

## Optimized with SolarEdge

On this 23 story downtown Honolulu high rise building, the team was challenged with a complex rooftop structure complete with multi-pitched surfaces and 10-12ft elevator shafts. About 25 percent of the usable space was in a lower, more shaded section. To use traditional string inverters would have meant high levels of power loss due to imbalance in the strings. Compared to module level electronics solutions, “the production differences would have been massive” says Josh Mason, Commercial Solutions Representative.

Traditionally, HEC would have used micro inverters for this application but turned to SolarEdge instead for a few key reasons. SolarEdge SE20k inverters provide native 480Vac support, and do not require transformers that come with additional cost and additional power losses. Furthermore, the economics of SolarEdge on the project were better due to Balance of Systems savings and a lower head to head charge for the inverters.

## Earning Interest with the Rooftop

With SolarEdge’s design flexibility, HEC was able to utilize the entire rooftop, installing 88 more modules than would have been possible with traditional string inverters. Even with 40 percent shading during the day, the economics favored placing



additional modules as they can leverage the production from the rooftop space.

## Favorable Economics

Overall, HEC won the bid based on providing the best possible economics due to design flexibility (larger array), shade resistance (high rise buildings) and a lower system cost than was possible with micro inverters. These factors and the customer’s confidence in HEC to deliver a high quality product on a complex site, proved successful against all other bids in the project. “The SolarEdge Platform was price competitive even with the central inverters ... in the end, the added production made the economics work out in favor of SolarEdge,” said Josh Mason.