Kaua‘i Utility Signs Deal With SolarCity for First Dispatchable Solar Storage System

Lihu‘e, Kaua‘i, HI – 09/09/15 – Kaua‘i Island Utility Cooperative (KIUC) has signed a power purchase agreement (PPA) with SolarCity (Nasdaq: SCTY) for electricity from the first utility-scale solar array and battery storage system designed to supply power to the grid in the evening, when demand is highest.

The proposed SolarCity project next to KIUC’s Kapaia power plant is believed to be the first utility-scale system in the U.S. to provide dispatchable solar energy, meaning that the utility can count on electricity being available when it’s needed, even hours after the sun goes down.

The 52 MWh battery system will feed up to 13 megawatts of electricity onto the grid to “shave” the amount of conventional power generation needed to meet the evening peak, which lasts from 5 p.m. to 10 p.m. By using the solar energy stored in the battery instead of diesel generators, KIUC will reduce its use of imported fossil fuels and also cut its greenhouse gas emissions.

Under the terms of the 20-year contract, KIUC will pay SolarCity a lower rate than the current cost of conventional generation and only slightly more than the cost of energy from KIUC’s two existing 12 megawatt solar arrays, whose output is available only during the day.

“KIUC has been investigating energy storage options for more than two years and price has always been the biggest challenge,” said David Bissell, President and CEO of KIUC. “This is a breakthrough project on technology and on price that enables us to move solar energy to the peak demand hours in the evening and reduce the amount of fossil fuel we’re using.”

“SolarCity is excited to bring the first dispatchable solar storage system to the island of Kaua‘i. Hawai‘i has been and continues to be at the forefront of new technology and research for solar and storage,” said Jon Yoshimura, Director of Policy and Electricity Markets for Solar City. “This solution will allow for more efficient load balancing and will reduce dependence on fossil fuel-based power.”
Pending state and county approvals, the array and battery storage facility will be built on 50 acres of land owned by Grove Farm Company, Inc. adjacent to KIUC’s Kapaia power station off Mā’alo Road, just north of Līhu’e.

KIUC has requested an accelerated timetable for approval by the Hawai‘i Public Utilities Commission. To qualify for federal investment tax credits that will substantially reduce the cost of the project, construction work must begin by April 2016 so the project can be in commercial operation by December 31, 2016.

SolarCity was the contractor on KIUC’s first 12-megawatt solar array in Kōloa, which went into commercial operation in September 2014 and supplies about 5 percent of Kaua‘i’s electricity.

About KIUC

KIUC is a member-owned cooperative serving 33,000 customers on the island of Kaua‘i. Formed in 2002 and governed by a nine-member, elected board of directors, KIUC is one of 930 electric co-ops serving more than 36 million members in 47 states.

About SolarCity

SolarCity (NASDAQ: SCTY) provides clean energy. The company has disrupted the century-old energy industry by providing renewable electricity directly to homeowners, businesses and government organizations for less than they spend on utility bills. SolarCity gives customers control of their energy costs to protect them from rising rates. The company makes solar energy easy by taking care of everything from design and permitting to monitoring and maintenance. SolarCity currently serves 19 states. Visit the company online at www.solarcity.com and follow the company on Facebook & Twitter.

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Photo:

The 12 megawatt Kōloa solar array owned by Kaua‘i Island Utility Cooperative was built by SolarCity and went into operation in 2014. SolarCity plans to build a larger array at Kapaia with a unique battery energy storage system. Photo by KIUC

Video:

Raw b-roll of Kōloa dedication: https://vimeo.com/107302020 by HawaiiStream
Figure 13. 1950-1951 USGS aerial photograph (UH MAGIS) showing the project area
Figure 19. General view of northeast project area from northwestern corner, view to southwest

Figure 20. General view of northeast project area from northwestern corner, view to southeast
Figure 21. General view of central portion of large southwestern project area, view to north

Figure 22. General view of central portion of large southwestern project area, view to south