Tesla's Massive Batteries Are Powering Everything from Exotic Islands to Breweries

Source: businessinsider.com

Published: January 19, 2017

NOTE: The article source link is broken; it no longer redirects properly.

Tesla

In November, Tesla announced it was powering nearly the entire island of Ta'u in American Samoa using solar power and packs of its massive commercial battery, the Powerpack 2.

The announcement, made just a few days after Tesla acquired SolarCity, showed a bigger push by the automaker to grow its energy business.

Although Tesla has yet to get its solar roof product on the market, Tesla's battery division has been growing. To date, 300 megawatt-hours worth of Tesla batteries have been deployed in 18 countries.

Tesla is helping power a luxury lodge located sitting on the outskirts of Kruger National Park in South Africa.

The luxury resort, Singita Lodge, privately owns 33,000 acres of land in Kurger National Park, which is home to buffalo, leaopards, cheetahs, elephants, and more. The resort itself has on-site solar panels running on Tesla's 3,150 kilowatt-hour Powerpack system.

Singita

Singita Lodge practices ecotorousim, though certainly a pricier form. According to Travel + Leisure, the resort has 15 loft suites, spa, fitness center, smoothie and espressor bar, and gym. A villa costs 17,9025 rand ($13,285) a night.

The resort says team members lead conservation efforts like the rehabilitation and maintenance of land, wildlife monitoring, and fencing security to initiate anti-poaching methods.

Tesla is also powering another luxury resort on Malolo Island, a volcanic island in Fiji.

Vimeo/PowerSmart Solar

Called Vunabaka, the resort sells properties priced as high as $2.5 million. A 2014 New Zealand Herald article said the properties were sold largely "through word of mouth" to people from New Zealand, Australia, and the United States.

The resort generates electricity via a 1-megawatt solar array powered by 20 Tesla Powerpacks.

Tesla was selected by energy company Southern California Edison to build a 20 megawatt battery system that can power 2,500 households a day.

SCE

The battery project was built at Southern California Edison's Mira Loma substation and is the largest lithium ion battery storage project in the world. The system doesn't run on solar power, but is meant to offset the energy grid by taking charge during off-peak hours, according to the Los Angeles Times.

Tesla was chosen to build the substation after the Aliso Canyon natural gas reservoir suffered a massive rupture in 2015 that displaced more than 8,000 California residents. Los Angeles wanted an electric energy solution that could be more reliable during peak times.

Similar to the Mira Loma substation, Vector, a utility company in New Zealand, doesn't use solar energy but uses Tesla's Powerpack system to offset the energy grid during peak hours.

Facebook/Glen Innes

For example, Vector installed a Powerpack system capable of storing 2 megawatt-hours worth of energy at its Glenn Ines substation, a residential neighborhood that has seen increasing energy loads as homeowners add more electronic systems over time. The Powerpack system helps offset energy loads during peak hours.

As mentioned earlier, Tesla is powering the entire island of Ta'u using its solar panels and Powerpack batteries.

Tesla

SolarCity, which was acquired by Tesla in November, built a microgrid with 1.4 megawatts of solar generation capacity on the island. The microgrid relies on 60 of Tesla's Powerpacks. The system can recharge with just 7 hours of daylight and can power nearly 100% of the island.

The Hawaiian island of Kaua'i will start running on solar panels and batteries supplied by Tesla in February.

Tesla

SolarCity is supplying 55,000 solar panels to collect energy during the day that will be stored by Tesla's Powerpacks. The batteries will offer 52-megawatt-hours of energy storage.

The system is being built under contract for the Kauai Island Utility Cooperative, marking the first time a utility has contracted a system that stores and releases solar energy after sunset. When everything is up-and-running, solar will account for 20% of the island's peak load.

La Crema, a winery located in Sonoma County, California, runs on solar energy that is stored by a 1,200-kilowatt-hour Powerpack system.

Facebook/ La Crema

La Crema is one of several wineries owned by Jackson Family Wines, which has an 8.4 megawatt-hour solar array that powers 6 different wineries. La Crema's Powerpack system stores some of that solar energy to run the winery.

Dent Island, a fishing lodge on a small island located between Vancouver Island and mainland British Columbia, relies on a Tesla Powerpack that stores energy captured by a tidal energy turbine.

The turbine doesn't capture enough energy to run the entire lodge all of the time, but it can discharge what energy it does capture directly to the site so the lodge doesn't have to connect directly to the energy grid. Dent Island has 5 Powerpacks on site that can provide 500 kilowatt-hours worth of energy.

Vimeo/Dent Island

The lodge itself offers salmon fishing tours. Rates range between $640 and $791 per person each night, depending on the season, for accommodations and fishing tours.

The College of Marin, a community college in California, uses a 3.2-megawatt-hour Powerpack system.

College of Marin

College of Marin

The Powerpack system stores energy generated by the school's solar panels and is expected to save $100,000 to $150,000 annually in energy costs.

Ocracoke Island, which is part of the Outer Banks in North Carolina, substituted diesel for solar energy that is enabled by Tesla's Powerpack system.


Tesla

The island is running in a 1-megawatt-hour Powerpack system composed of two of the batteries. It is installed at the island's generating plant, but also helps store solar enery from a nearby array.

Brea Mall in Orange County, California relies on two Tesla Powerpacks that operate at peak energy consumption hours to cut down on costs.

Wikimedia Commons

The mall, which also happens to sell Tesla vehicles, uses a 500-kilowatt-hour system and 1-megawatt-hour system that are projected to help save the mall thousands of dollars annually by offsetting energy loads during peak hours.

The Sierra Nevada Brewing Company installed a Tesla Powerpack system at its craft brewery in Chico, California.


Tesla

The brewery requires a significant amount of electricity to produce its beer. Sierra Nevada sold 1 million barrels of beer in 2014 and brews 1.4 million gallons of beer at a given moment.

The brewery has an on-site solar array composed of 10,751 panels panels capable of producing 2 megawatts of power — enough to offset 20% of the brewery's electricity consumption. Tesla has supplied the brewery with a 500-kilowatt Powerpack to store the solar energy.

The StubHub Center in Carson, California stores energy during off peak times using 20 Tesla Powerpacks totaling 2,000 kilowatt-hour of storage capacity.

Tesla

The StubHub Center is the home of Major League Soccer team LA Galaxy. Naturally, sports stadiums put a ton of strain on the energy grid during events, and the Powerpack system allows the stadium to draw stored energy during times of heavy usage. The StubHub Center is the first US Sports Venue to deploy a battery storage system.