Samoa microgrid operation



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Tesla's subsidiary, SolarCity, is at the end of a one-year solar energy microgrid project on the American Samoa island of Ta'u that, at 1.4 megawatts, can cover "nearly 100% " of its 600 residents ' electrical needs. Its benefits may be life changing for residents of Ta"u.

Energy efficiency is an important component of a renewable microgrid transition. Energy storage is key to renewable island and remote community microgrids. The Ta'u integrated microgrid -- 1.4 megawatts of solar power and 6 megawatt hours of battery storage from 60 Tesla Powerpack, alongside smart controls to enable load shifting-- will become an important component of the Ta'u community"s transition to energy independence.

Although some renewable systems have found success, other communities face challenges transitioning from a fossil fuel reliance to a microgrid. A SolarCity microgrid has the capacity to overcome these challenges due to the influence and reliability of Tesla Energy. Microgrid systems foster community resiliency and stability. Power electronics and control systems enable a more stable grid through better controls. At the same time, relying more on local resources and less on imported diesel increases overall resiliency for the Ta'u community.

Transitioning to renewable microgrids can reduce costs. Research indicates that relying on more diversely and renewably powered microgrids has led to reduced diesel usage, electricity prices, and operating costs. Creating a project like the SolarCity microgrid on Ta'u, with the requisite business plan to lower overall costs and attract investment, is a difficult and lengthy task. However, it has clearly been made easier with SolarCity's deep understanding of inherent necessary technologies, processes, and pitfalls.

Fa"a Samoa or the Samoan Way is the foundation of Samoan society, culture, and heritage. Fa"a Samoa customs and culture are over 3000 years old and have changed very little over this period. The Fa'a is tenaciously defended by those who have chosen to remain in their home villages rather than to emigrate to the U.S. Fa'a culture and customs are based around the mutual respect given to elders, the church, visitors, and the extended family. The SolarCity grid will enhance the Fa's or Samoan Way and reinforce the foundation of Samoan society, culture, and heritage.

SolarCity, alongside American Samoan and U.S. authorities, including the Department of Interior, has provided the upfront costs of designing, delivering, installing, and maintaining the solar microgrid. Their customers on Ta'u will pay a fixed monthly fee for clean solar power and start realizing cost savings from day one without the hassle of owning and maintaining their own power system. Removing the hazards of power intermittency will offer a tremendous difference in the lives of Ta'u residents.

As Tesla owners, solar advocates and obvious believers in the future of sustainable energy, we"ve partnered

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with a service for estimating solar costs based on one"s location and energy requirement. Please consider supporting our solar-focused affiliate partner and fan to Teslarati by getting a cost estimate.

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