Through the power of partnership and a grant from the California Energy Commission, the Blue Lake Rancheria is now home to a cutting-edge low carbon community scale microgrid.

On Thursday, the rancheria held an elaborate event to celebrate the groundbreaking project, which serves as a true milestone in its efforts to be sustainable and economically viable while being able to clean energy.

"This is our piece of Earth that we're not going to leave. You can't pick a reservation up and move it. So if we're going to live here, and our children are going to live here, or seven generations from now, we have to keep it healthy and clean, and that's our goal," said the tribe’s vice chairperson and CEO of economic enterprises, Arla Ramsey.

There's multiple components to the microgrid, but basically, solar energy from a massive photovoltaic array is stored in a Tesla battery system and linked to a digital management system.

The solar array is the largest in Humboldt County with more than 1,500 solar modules at a generation capacity of 420 kilowatts, which will produce 1,250,000 kilowatt hours of energy over a year — enough to power 75 homes. It allows the rancheria to pull and distribute the power when and where it's needed, automatically manages the rate structure. It saves the rancheria an estimated $200,000 a year, eases the demand on the larger grid and allows the rancheria to island if there’s a power outage.

"It’s improved our economics, it’s created jobs, improved our resilience and ultimately it’s succeeded on almost every level that we care about to measure," said the rancheria’s director of sustainability, Jana Ganion.

The rancheria worked with an array of technology experts, national labs, local businesses, the state and PG&G. Plus, for almost a decade, the rancheria has developed a close relationship with Humboldt State University and its Schatz Energy Research Center, which played a key role in making the microgrid a success.

"The kinds of technology we’re installing and integrating together, it hasn’t been done before," said SERC founder Peter Lehman. "So this project and the knowledge we gain from doing this, the lessons we learn from doing this, are going to be applicable in many situations in this country and around the world. So that’s how progress occurs — there are pioneers, and we’re the pioneers in this project, and people follow on after the pioneers."

In this LoCO Video Report we check out the microgrid celebration and hear from many more people involved.

[Ed. note/disclosure: This is part of Lost Coast Coast, which owns the Outpost]