

National Community Solar Partnership



Kit Carson Electric Cooperative

Shared Solar for the Community

Residents of Taos, New Mexico are now served by **100kW of shared solar**. Through a **community solar array and a third party power purchase agreement (PPA)**, Kit Carson Electric Cooperative provides solar to residents of multiple income levels. The solar array is a parking canopy at a local charter school, a visible and functional space to showcase both the community and the cooperative's commitment to renewable energy.

In 2012, Kit Carson formed a **community committee** of 55 people and six board members from various income levels, backgrounds, housing types and interests. This included opponents and proponents of solar to determine which kind of energy system to build next, based on the greatest interest and benefit to the community. The committee chose community solar as their preferred energy source due to the large amounts of members it could serve at a relatively low cost. The committee also served as a vehicle to address obstacles to deploying the community solar array; for example, if one group had concerns about the aesthetics of the array, a committee member who had graphic design experience would draft a design to address those concerns.

A community solar array in New Mexico demonstrates the value of community engagement and offers a model that could be replicated throughout the state and the country.

To build the system, the first of its kind for the cooperative, Kit Carson worked with a third party developer, Clean Energy Collective (CEC). CEC owned the system and Kit Carson purchased the electricity through a 20-year PPA and helped to market the sales of the panels. As part of the arrangement, CEC was required to offer financing for participants, including those that could not pay upfront. The total cost to construct the raised canopy carport array was \$350,000. Members were able to purchase one of the 420 panels for \$845 to offset their electricity bills each month.¹ Through virtual net metering, panel owners were credited for the portion of energy the panel contributed to the grid.

Together with Kit Carson, the committee selected a local charter school to serve as the host site. Working with a charter school was a key marketing strategy as it facilitated outreach to students of families of various



For more information:

www.kitcarson.com

¹ *Taos community solar garden prepares to bloom*, THE TAOS NEWS, (July 21, 2012) available at http://www.taosnews.com/news/article_38054dc0-db37-11e1-8df1-001a4bcf887a.html

incomes and housing types. Committee members also helped tap into diverse networks to help reach a wider range of potential customer for the community solar array.

Since the array was built in 2012, the system was fully subscribed and there is now enough interest to develop another 2MW of community solar. This project was a first for New Mexico and has become a model for other energy cooperatives in the state. The New Mexico Public Regulation Committee is also looking at the rules to enable replication by other types of utilities in the state.

Lessons Learned

Work Directly with the Community

One ingredient to the success of this project was the level of community engagement enabled by the community committee. By directly engaging their constituency, the cooperative better understood what the community valued, which led to a collaborative effort and a project that had community support. The committee had broad representation and provided a forum for candid discussion across the community. This process empowered customers to be part of the project development and have a deciding voice on their energy supply.

Reduce Project Costs to Enable Low-Income Participation

This community solar project included both the carport and solar panels, which drove up the project cost. As a result, the cost to participate was higher and the project didn't attract as many low and moderate income customers as first envisioned. Going forward, the cooperative will develop ground-mounted arrays to drive costs down, and with advancing technology and increasingly competitive solar prices, they anticipate the ability to further reduce the cost for customers.

Community Solar for Resilience

Kit Carson is interested in deploying solar as a strategy to support community resilience. At a regional scale, distributed generation creates a more resilient system that is less reliant on large, centralized power plants. At a given site, solar can be supplemented with battery technology to provide backup power to critical facilities during outages. Within the town of Taos, Kit Carson is considering the installation of a 1MW solar array with battery backup at a sewer plant and hopes to add a community shared solar provision on this project. After one year of operation and payment to the developer, Kit Carson hopes to turn this solar+storage array into a community solar project and have subscribers purchase the power.