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Kit Carson Electric setting national example for renewable energy

Small electric co-op in New Mexico separates from Tri-State to pursue solar option

By Mary Shinn (/staff/49-mary-shinn) City & health reporter Saturday, April 14, 2018 5:05 AM

La Plata Electric Association has long touted its support for green energy, but now it's close to reaching a cap on the local renewable power it can support.

The co-op serves more than 30,000 members in La Plata and Archuleta counties, and it is contracted to buy 95 percent of its power from <u>Tri-State Generation and</u> <u>Transmission (https://www.tristategt.org/)</u> until 2050. While there is interest in generating more renewable power in the region, LPEA is about to hit a limit imposed by Tri-State on purchasing renewable power from other sources. In contrast, northern New Mexico co-op Kit Carson Electric Cooperative bought out of its Tri-State contract in 2016, giving it the freedom to build solar arrays across its three-county area to serve its 29,000 electric members. Kit Carson had 24 more years left on its contract with Tri-State when its exit was finalized.

"This artificial cap was not hurting Kit Carson as much as denying our members access to the kind of power they wanted," said Kit Carson CEO Luis Reyes.

The co-op was interested in the low, stable prices that clean energy generation offers, said Bob Bresnahan, a Kit Carson Electric Cooperative board member.

The co-op's decision attracted national attention, and Kit Carson was recently accepted into a collaborative research effort focused on solar energy organized by the <u>National</u> <u>Renewable Energy Laboratory</u> (<u>https://www.nrel.gov/solar/solar-energy-innovation-</u>

<u>network.html</u>). The co-op will focus on developing a model for other rural cooperative utilities interested in developing solar energy as part of the collaborative.

Kit Carson plans to generate enough solar energy to power its grid during the day by 2022. This will require 35 1megawatt arrays that will provide between 34 to 44 percent of the co-op's total energy consumption, Reyes said.

Looking for different options

The road to leaving Tri-State started in 2007-08 when Kit Carson declined to extend its contract with the generation and transmission company from 2040 until 2050. The co-op attempted to advocate for change from within the system at first, and it pushed for increasing how much outside renewable energy co-ops could buy from 5 percent to 10 percent, Reyes said.

"The company that we own wasn't listening to us," he said.

In 2013, the Kit Carson board became seriously interested in pursuing a buyout after it was informed of the 10th Tri-State rate increase in 13 years, Reyes said.

"Our trajectory is toward lower prices that are fixed for two or three decades. All the risk lies with staying with fossil fuels," Bresnahan said.

Kit Carson had to request permission from Tri-State to start negotiating with other power suppliers, and it spent 1½ years researching other options before the buyout.

"We didn't want a power supplier that called all the shots," he said. Kit Carson was also looking for a shorter contract that would allow the co-op to be more nimble.

In the end, the Kit Carson board was united in pursuing a buyout because it would allow the co-op to invest in solar energy, which it expects will provide stable, low-cost clean energy in the long term.

"Four of the most influential members of our board are actually Republicans. They are just responsible business people," Bresnahan said. The cooperative has 10 board members.

A new power supplier

Guzman Energy, an electricity broker, agreed to pay Tri-State \$37 million to allow Kit Carson to exit its contract, which was set to expire in 24 years. At the start of negotiations, Tri-State asked Kit Carson for \$137 million, The Taos News reported.

Kit Carson must pay back Guzman over six years, and the debt was not placed on the co-op's books, Reyes said.

Guzman also agreed to build solar arrays across Kit Carson's service area, and in return, the co-op agreed to purchase the power from the company.



Kit Carson plans to generate enough solar energy to power its grid during the day by 2022. This will require 35 1-megawatt arrays that will provide between 34 to 44 percent of the co-op's total energy consumption. Courtesy of Kit Carson Electric Cooperative

Before Kit Carson signed a 10-year contract with Guzman, the co-op held three days of meetings with elected officials, environmental advocates and other community members to make sure customers across the three counties were comfortable with the company, Reyes said.

As an electricity broker, Guzman also provides power to Kit Carson from the open market, which includes power from traditional sources.

The exit fee and the cost for using Tri-State's transmission lines are both included in the rates members pay, and after the payback period for the exit fee, rates will come down.

Kit Carson's rates went up in December 2016 after the buyout was finalized, but the increase was needed because the co-op's largest industrial customer closed, not because of the buyout, Bresnahan said.

As Kit Carson's solar arrays come online, it expects to be insulated from risk associated with fossil fuels, Bresnahan said.

One of the biggest risks to coal production is government regulations, which may be implemented to cut production of carbon dioxide, a contributor to climate change, Bresnahan said.

"We are looking at a climate change catastrophe. We are looking it in the face," he said.

After Kit Carson reaches its 100 percent daytime renewable energy production goal, Bresnahan expects the co-op will work toward complete reliance on renewable energy.

Transitioning to greater reliance on renewable energy will require large-scale battery storage. Right now, those costs seem prohibitive, but their cost is falling dramatically each

year, Reyes said.

Reyes expects the auto industry will perfect batteries that utilities can use, and Kit Carson is positioning itself to be ready for that technology.

Nonprofit builds support

While the Kit Carson board explored a buyout, <u>Renewable</u> <u>Taos (http://renewabletaos.org/)</u>, a nonprofit that Bresnahan helped found, educated the community about renewable energy in a wide variety of ways. While the buyout would have likely happened without Renewable Taos, the group held annual community meetings about renewable energy and climate change, met with county and town officials to promote a renewable energy economy and investigated all the alternatives for "escaping" the renewable energy cap placed on Kit Carson by Tri-State.

The group examined expanding solar production through rooftop installations, but it found it was much slower and much more expensive than building large community solar gardens. It also introduced state legislation that would have allowed the co-op to develop community solar gardens, but that was defeated, Bresnahan said.

Renewable-energy development presents a new opportunity to support the New Mexico economy, which has long provided coal-powered energy to the western United States, particularly California, said Bill Brown, a member of Renewable Taos and an energy science, technology, policy and economics consultant. Kit Carson decided to build 1-megawatt arrays to ensure local companies could work on the project, Reyes said. It also ensured that the co-op wouldn't have to make major upgrades to its existing system.

The co-op plans to build arrays across its three counties so that some of the installations can keep functioning, even if others are covered by clouds, Bresnahan said.

At the end of 30 years, Kit Carson has the option to buy the solar arrays from Guzman. But it is possible the co-op may not want to buy them if technology has advanced, he said.

Renewable push in Durango

Advocates in Durango are also interested in pursuing locally generated renewable energy to support the economy.

A coalition brought a petition with about 1,000 signatures to Durango City Council in October, calling on the city to transition to 100 percent local renewable energy by 2050. Earlier this year, LPEA's board formed a subcommittee to explore how the co-op should meet the community's electricity needs over the next 10 to 15 years.

The subcommittee was not specifically approved to research a buyout of its contract with Tri-State, and the community has been split on the issue over whether LPEA should explore such an option.

Some advocates point to Kit Carson as a model that LPEA could follow, but others argue there are major differences between the co-ops' contracts with Tri-State. Skeptics say Kit Carson is taking a risk by purchasing power from Guzman. LPEA is contracted to buy power from Tri-State for the next 32 years, and its contract is valued at between \$400 million to \$550 million. The value of the contract is one starting place to determine a buyout number, said Ron Meier, LPEA's manager of engineering and member relations.

"The cost to buyout might be more than a majority of our membership can afford," he said. LPEA could also see higher prices for electricity transmission if it left Tri-State because La Plata and Archuleta counties are remote, he said.

Meier said Kit Carson is benefiting from lower market rates for electricity as a result of surplus generation across the country. But the excess supply may not persist if more electric cars are sold nationally or if the price of natural gas goes up, he said.

Companies like Guzman are also exposed to more fluctuations in price because they do not produce their own electricity, he said.

"Although companies likely hedged themselves against natural gas, large swings could create more market volatility than a company's balance sheet can handle, and they could eventually run the risk of bankruptcy," Meier said.

Rather than pursuing a buyout from the Tri-State contract, LPEA could find an alternative that could allow LPEA to develop more renewable generation, he said.

"We continue to look into power supply from a strategic perspective," he said. mshinn @durangoherald.com