The Questa Hydrogen Project: A Bright Spot in Rural Economic and Energy Development Aligned with Federal Priorities

Project Background

Over the past decade, Northern New Mexico's regional energy provider, Kit Carson Electric Cooperative (KCEC), has been creating a roadmap for delivering safe, reliable energy to its 30,000 customers. To meet growing energy demand and local co-op members' priorities, KCEC and community leaders began examining the potential to use a former molybdenum mine and Superfund site in the Village of Questa, New Mexico, as a potential hub for hydrogen development. The project will use electrolysis to separate hydrogen from reclaimed water located at the former mine site and develop long-duration (up to 16 hours) energy storage technology. Ultimately, the project will generate enough energy to power 25,000 homes annually, bringing reliability and stability to the region's energy needs, and generating $298 million in economic benefit to the region. After assessing the technical feasibility, energy production potential, and economic impact, KCEC applied for and was awarded $231 million in federal funding to create the hydrogen hub. KCEC is implementing the project under a signed contract with the U.S. Department of Agriculture.

The Questa Hydrogen Project led by Kit Carson Electric is a bright spot of rural energy innovation and economic development.

As USDA reviews projects for alignment with the Trump Administration's priorities, please look to the Questa hydrogen project led by Kit Carson Electric Cooperative as a powerful example of rural energy innovation and economic development. This project:

1. **Aligns with national energy priorities:** As the United States works to maintain our energy independence and create American energy jobs by unleashing the country's affordable, reliable energy and natural resources, the Questa hydrogen project will be a powerful contributor to these priorities. We know that hydrogen is likely to be a significant part of the country's energy future with demand growing by two to four times by 2050. Hydrogen production in northern New Mexico ensures that an abundant supply of reliable energy can

be developed in the region: This project would produce enough energy to power nearly 25,000 homes each year.

2. **Leverages local assets to unleash an abundant source of energy using American innovation**: Most of northern New Mexico doesn't have deposits of oil, coal, or natural gas as extractable resources, and their use would require more infrastructure and expense to import for the region's energy needs. Developing energy in this region requires innovation and new approaches. The ability to develop and deploy hydrogen through solar-powered electrolysis makes use of what the region *does* have—roughly 300 days of sunshine a year—to create a facility that produces 104 megawatts of energy annually. This is the right project for the region because it's the most affordable and regionally available energy option. The project also has significant local support, including from the Village of Questa, the Town of Taos, Taos County, and Chevron, who is managing the mine site clean-up.

3. **Creates transformative economic growth in a hard-to-serve area**: Economic development in rural communities is difficult. This project, though, creates $298 million in economic impact over five years, generates $44 million in additional tax revenue, and will add hundreds of jobs to the region. The project will create new jobs in wide-ranging sectors, from construction and energy production to emergency response and the local service industry, providing a much-needed economic boost to the rural region.

4. **Transforms a local liability into an energy opportunity:** The project will convert a brownfield into a greenfield development opportunity. When the Questa molybdenum mine shut down in 2014, it also left a Superfund site. As a result of the mining activities, hazardous chemicals—like arsenic, copper, and mercury— were released into the surface water and ground water. Today, an on-site wastewater treatment plant treats more than four million gallons of contaminated water every day, at a substantial cost. Rather than continue to look at the molybdenum site clean-up and associated water as a community liability, this project transforms these into community assets. The on-site water can be used in the electrolysis process, transforming "bad water" into good energy.

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