The Questa Hydrogen Project: A Bright Spot in Rural Economic and Energy Development - Educating Decisionmakers

Project Background Summary

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 has a signed contract with the federal government to fund the project, but recent actions related to freezing federal funding at the U.S. Department of Agriculture and other agencies have thrown a degree of uncertainty into the release of those funds and the future of the project. Village leaders and KCEC, though, are moving forward under the terms of the signed agreement to create this innovative hydrogen production facility.

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

Please highlight the importance of both the rural economic impact and energy development value of the Questa hydrogen project with USDA's new leadership. This project aligns with the goal of creating American-made, abundant energy and is a transformational economic development project for rural northern New Mexico. Please encourage USDA to follow through on the signed contract for the project when new agency leadership conducts a review of recently-awarded projects. Specifically, this project:

1. **Delivers a long overdue economic boost to an overlooked rural community with substantial regional spillover benefits**: When the molybdenum mine closed more than a decade ago, the small northern New Mexico town of Questa was devastated by the loss of its largest employer and left with a legacy of pollution. Hundreds of jobs were lost and a Superfund site threatened Questa's water supply. Since then, village leaders, with support from Chevron and Kit Carson Electric Cooperative, have been charting an economic future that emphasizes agriculture, tourism, and outdoor recreation, but none have come close to restoring the jobs that were lost in 2014. This hydrogen facility offers a step toward addressing that. It not only helps meet the growing energy demands in the region, but it also restores a local employment anchor, providing a path toward a brighter economic future—one that Questa residents have embraced, and one that they deserve.
    a. **Jobs**
        i. Construction of the facility will bring more than 350 jobs to the region.
        ii. The hydrogen hub and associated energy production will sustain more than 70 local jobs.
        iii. The increased tax revenue from the facility will provide funding for additional public safety officers and a full-time, professional EMS/fire-fighting workforce in a wildfire-prone region.
    b. **Economic impact**
        i. There will be a $298 million economic benefit to the region in the first five years, delivering a nearly 130% ROI on the original award in just a few years. Approximately $206 million of the $298 million in economic impact will benefit Questa.
        ii. The project will generate $44 million in additional tax revenue with approximately $26 million of that landing in Questa.

2. **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 can serve as an example. We know that hydrogen is likely to be a significant part of the energy future with demand growing by two to four times by 2050. Hydrogen development in northern New Mexico ensures 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.

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. **Leverages local assets to unleash an abundant source of energy utilizing 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 preserves the agricultural, ranching, hunting, fishing, and outdoor recreation legacy and priorities of the local community. As a rural place that values access to the outdoors for economic development and recreation, this project aligns with the rural characteristics of the community. The project has benefited from significant local support, including from the Village, the Town of Taos, Taos County, and Chevron, who is managing the mine site clean-up.

5. **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.

For more information, please contact Mayor John Ortega, Questa, NM at jortega@villageofquesta.org