



New Mexico State University Chancellor Dan Arvizu visited a solar energy facility at Sandia National Labs. Arvizu will address the Clean Energy Economy Town Hall on Aug. 5.

Development Administration, with \$750,000 more in matching, in-kind contributions by NMSU entities and other partners involved in the project. That includes the New Mexico-based North American Intelligent Manufacturing Initiative, which is helping develop a "roadmap" that lays out the opportunities, challenges and concrete action that communities across the state can pursue to take advantage of clean energy technology and entrepreneurial initiatives.

In good part, ICREW aims to embrace the "tectonic" changes underway in the energy industry as the state moves from fossil fuels to renewable energy generation under the new Energy Transition Act, said NAIMI co-founder Fred Mondragon.

The act requires public utilities to convert the grid to 90% renewables by 2040 and 100% carbon-free generation by 2045. Those efforts will create many new business and employment opportunities in the renewable energy industry. But it also means major transitions in places like San Juan and McKinley counties, where hundreds of power plant workers and coal miners will lose their jobs as utilities abandon the coal-fired San Juan Generating Station near Farmington and the Escalante Generating Station near Grants.

The ICREW initiative can help those communities create alternative opportunities, while also working with other towns and cities across the state to tap into the clean energy economy to build their local business and employment base, Mondragon said.

"We want to develop concrete plans to capitalize on the green energy economy to bring or create jobs in New Mexico," Mondragon said. "We're focused on job creation, in this case, jobs for the future in the clean, renewable energy industry. We need to develop the workforce for that new economy."

Jobs and tech

That means a major focus on workforce development, led by NMSU's College of Engineering and Indian Resources Development, said engineering Associate Dean Patricia Sullivan, who helped create ICREW and worked with the chancellor's office to obtain EDA funding for it. The project will build on existing engineering instructional



The San Juan Generating Station near Farmington.

programs related to clean energy, create new curriculum, and work with NMSU branch campuses, community colleges and even high schools to provide educational opportunities and encourage youth to pursue clean energy-related careers.

It includes special emphasis on working with Native American communities on business development and entrepreneurship.

"COVID-19 clearly exposed the vulnerabilities that those communities face on so many levels, including basic access to clean water and electricity," Sullivan said. "We want to work with them to look at clean energy opportunities."

The engineering school and NMSU's Arrowhead Center will also work with existing businesses and startups to pursue clean energy technology. That includes helping established companies become more energy efficient.

"We'll leverage our energy efficiency programs to provide assistance services, including business assessments to help streamline operations and adopt best practices," Sullivan said.

Accelerator launch

The Arrowhead Center, meanwhile, is launching a new, five-week "Energy Sprint" business accelerator for startups with clean energy products and services, and for existing businesses looking to

pursue new endeavors, said Arrowhead Center Director Kathryn Renner Hansen. The first accelerator will include up to 10 participants and run from mid-August to mid-September, with another cohort scheduled for the spring.

"We'll do a couple of sprints per year going forward," Hansen said. "There's a lot of technology around the state for startups to build businesses, and many existing businesses are also looking at taking on new technologies. There's a lot of potential to link up those businesses with resources at NMSU, other universities, and at the state's national laboratories."

The sprints include intensive mentoring and coaching, customer discovery and development, lectures by guest speakers in business development and access to financing, plus eligibility for up to \$1,500 in stipends, \$20,000 in Amazon Web Services Credits, and consideration for seed investments from the Arrowhead Innovation Fund.

Statewide efforts

NAIMI is leading the effort to build the statewide "roadmap" for community action around the state. It's already set up 12 regional working groups, or clusters, in all corners of New Mexico, from the northwestern region and the mid-Rio Grande Corridor to the southeastern and southwestern areas, with about 200 active participants to date, Mondragon said.



Wind turbines on Mesa del los Jumanos between Willard and Cedarvale.



Peshway Be of Shiprock attends a New Mexico Public Regulation Commission meeting in Santa Fe in December about the impending shutdown of the coal-powered San Juan Generating Station near Farmington.

The clusters will focus on the opportunities, issues, challenges and action plans unique to each of their regions, with participation by local educators, business leaders, mayors, economic development groups and more, said NAIMI Director Thomas Bowles.

With the clusters now in place, NMSU will host a statewide virtual town hall on Wednesday, Aug. 5, to facilitate discussion and collect feedback for the roadmap. The forum will include presentations on the ICREW project, plus breakout and roundtable discussions.

"We want to build a concrete set of actions with specific, prioritized recommendations to move forward," Bowles said. "We'll look at a very broad set of issues covering everything from technology challenges, workforce development and land issues to local economic issues, internet connectivity and water."

Holistic approach

The effort involves a holistic approach to building the clean energy economy. New solar, wind and transmission infrastructure projects can generate

many construction jobs, but once built, they don't provide much long-term employment, Bowles said.

The real opportunities lie in developing an array of new products and services in everything from energy efficiency and building a smart, interconnected grid to cybersecurity to protect it all, Bowles said. It includes efforts to attract manufacturing firms to the state as companies look to re-shore operations from Asia in the wake of the coronavirus pandemic. And it includes potential to bring more firms like Facebook to New Mexico that want to take advantage of the state's ability to offer low-cost solar and wind generation to power facilities with 100% renewable energy.

"Clean energy like solar and wind don't by themselves create a huge number of jobs," Bowles said. "We have to grow our economy alongside it by creating jobs with companies connected to the clean energy economy."

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TECH BYTES



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Renewable roadmap

NMSU-led initiative helps build NM's green energy economy

New Mexico State University is leading a new initiative to help local communities tap into the state's emerging green energy economy to promote business development and job creation. The Innovation and Commercialization for a Regional Energy Workforce, or ICREW project, is funded by a \$750,000 grant from the U.S. Economic