GRID RESILIENCE AND INNOVATION PARTNERSHIPS PROGRAM

Advancing Grid Stability and Customer Benefits with Virtual Power Plants in New Mexico

Established by the Bipartisan Infrastructure Law, the Grid Resilience and Innovation Partnerships (GRIP) Program is a $10.5 billion investment to enhance grid flexibility, improve the resilience of the power system against extreme weather, and ensure American communities have access to affordable, reliable, electricity when and where they need it. GRIP funding is administered by the U.S. Department of Energy's Grid Deployment Office (GDO). This project was selected through the second round of GRIP funding.

Public Service Company of New Mexico (PNM) is spearheading the Virtual Power Plant (VPP) Enablement project to improve grid stability and reduce customers' electricity bills through smart grid technology, data aggregation software, and financial incentives. The program will empower PNM to harness small, variable energy resources more effectively. The project unfolds across five strategic workstreams, ranging from the program's initial design to full system implementation. These efforts will leverage customer-owned renewable energy assets, such as rooftop solar and electric vehicle charging stations to mitigate power fluctuations.

Anticipated Outcomes and Benefits

Enhanced grid controls and customer savings: The VPP program will provide operators with granular visibility and control over localized grid constraints. This capability will allow for accurate predictions and distribution of renewable energy, improving service and enhancing grid stability. The program will enable PNM customers, including those in low-income and Disadvantaged Communities (DACs), to participate in energy programs offered by PNM, which may help reduce electric bills.

Market opportunities for aggregators: The project will enable others to participate in the broader market environment for third-party aggregators to deploy their assets effectively. By enabling access to the broader market, PNM will support the broader adoption of VPP models, creating a blueprint for VPP adoption by other utilities and energy aggregators.

Workforce engagement: PNM's initiative will support high-quality job creation and energy access in DACs. Stakeholders engaged with the VPP program include the Albuquerque Hispano Chamber of Commerce, the New Mexico Department of Workforce Solutions, the Partnership for Community Action (PCA), labor organizations, and New Mexico State University (NMSU). PNM will work with these partners to hire local workers, develop training, apprenticeships, and pre-apprenticeship programs, extend bidding opportunities to businesses majority owned or controlled by underrepresented persons or groups of underrepresented persons, and develop a new internship program. Some or all of this project will be executed in collaboration with the International Brotherhood of Electrical Workers (IBEW).

Project Details

- **Project:** Virtual Power Plant Enablement
- **Applicant/Selectee:** Public Service Company of New Mexico
- **GRIP Program:** Smart Grid Grants (Bipartisan Infrastructure Law, Section 40107)
- **Federal cost share:** $15,000,000
- **Recipient cost share:** $35,000,000
- **Project location:** New Mexico
- **Project type:** Grid Enhancing Technologies and Applications

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