

# The NM SMART Grid Center

Sustainable, Modular, Adaptive, Resilient, Transactive

National Science Foundation EPSCoR Research Infrastructure Improvement Track 1 Project

## Mission

The NM SMART Grid Center will investigate the fundamental challenges to transition existing electricity transmission and distributed energy infrastructure into a SMART grid and develop supporting knowledge, national talent, and an informed public.

## Quick Facts

- **Grant amount:** \$20 million + \$4 million cost-share
- **Dates:** September 15, 2018–September 14, 2023 (5 years)
- **Research goals:**
  - **Architecture:** Creates a comprehensive design framework for electricity system distribution feeders to evolve into sustainable and resilient microgrids
  - **Networking:** Develops new microgrid networking and communications systems that are scalable, secure, and protect user privacy
  - **Decision-Support:** Integrates machine learning, data mining, knowledge-based, and other artificial intelligence techniques to utilize heterogeneous smart grid data to make computer-aided and automatic decisions
  - **Deployment:** Integrates the architecture, networking, and decision-support components to validate the proposed models and technologies in simulations and diverse microgrid testbeds
- **Workforce development & community engagement:**
  - **Research Excellence:** Prepares a cadre of highly competitive faculty and post-doctoral researchers
  - **STEM Pipeline:** Strengthens and diversifies the undergraduate-to-graduate-student pipeline
  - **Next Generation of STEM Professionals:** Establishes SMART- and Micro-Grid Training Center at Santa Fe Community College
  - **Public Interconnect Program:** Engender increased public understanding of, and support for, scientific research and STEM education in collaboration with Explora

## What is a SMART Grid?

An electricity grid that uses digital technology and two-way communication between utilities and customers to increase efficiency, security, and sustainability.

## Participating Organizations

