Objective:
To position New
Mexico as a
national leader in
energy and natural
resources
management.



# Energy, Minerals & Natural Resources Department

Sarah Cottrell Propst, Cabinet Secretary

New Mexico's Clean Energy Future:

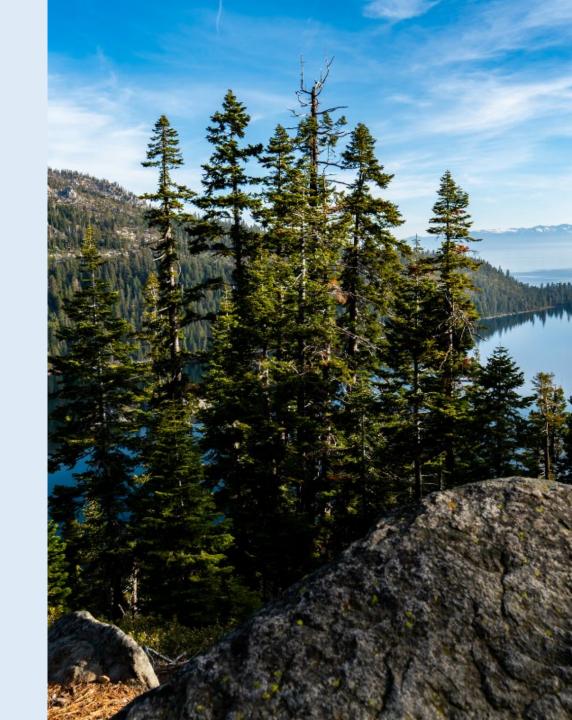
**Key Partnerships and Strategic Vision** 



# Today's NM electricity policy objectives

Provide clean, affordable, resilient, reliable electricity.

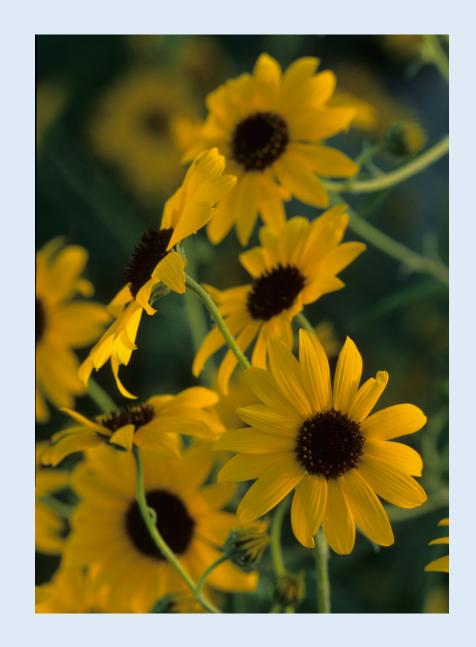
- Decarbonize electricity generation.
- Strategic investments in grid modernization and transmission.
- Increase regional coordination & cooperation
  - Western Energy Imbalance Market
  - Day-ahead market
  - Regional Transmission Organization (RTO)
  - Transmission planning
- + Today's Topic: Grid (or capacity) firming to keep the grid stable while integrating high levels of intermittent resources.





## We set the stage in 2019, with the Governor's Executive Order 2019-003:

- Established a goal of reducing statewide greenhouse gas emissions by at least 45% by 2030 compared to 2005 levels.
- Committed New Mexico to joining the US Climate Alliance.
- Created the New Mexico Climate Change Task Force.
- Directed multiple agency climate regulatory actions.
- Laid the foundation for the Energy Transition Act (ETA).





Energy Transition Act (2019)

- Securitization
- Replacement power
- Renewable energy and zero-carbon standards
- Apprenticeships
- Community assistance funding from bond proceeds



# Energy Transition Act – Portfolio Standards

- 40% renewable energy by 2025
- 50% renewable energy by 2030
- Public Regulation Commission oversees compliance

#### **FOR UTILITIES:**

- 80% renewable energy by 2040
- 100% zero carbon resources by 2045 as long as safety, reliability and impacts to customer bills are considered.
- PNM has already stated publicly that it will meet the zero-carbon requirement by 2040.

#### FOR RURAL ELECTRIC COOPERATIVES:

- 100% zero-carbon resources by 2050
- Resources composed of at least 80% renewable energy, as long as it is technically feasible, the system is reliable, and is not unaffordable.





# Results: Renewables are powering NM

- In 2022, renewable resources provided 42% of New Mexico's instate electricity generation.
- That is a five-fold increase since 2015, according the U.S. Energy Information Administration (EIA).





#### SunZia:

# The largest clean energy infrastructure project in United States history.

- The SunZia Wind and Transmission Projects, both led by Pattern Energy, highlight New Mexico's wind energy capacity.
- The SunZia Wind project, which broke ground last year, encompasses wind farms in Lincoln, and San Miguel counties with more than 3,500 MW of generation capacity.
- The SunZia Transmission project, a 550-mile HVDC project stretching from central New Mexico into Arizona that broke ground in August of 2023, can move more than 3,000 MW of energy.
- Over \$8 billion investment
- 150 permanent jobs + over 2,000 construction jobs during peak construction



Interior Secretary Deb Haaland speaking at the SunZia transmission groundbreaking. Sept. 1, 2023



# Clean Energy is Powering Economic Development

- Meta's Data Center in Los Lunas
  - ~\$2 billion data center investment in New Mexico
  - Broke ground in 2016
  - 400+ operational jobs supported once completed
  - \$4 million+ direct funding to Valencia County area schools and nonprofits
  - Added 635 MW new renewables in NM
- Arcosa's wind-tower manufacturing plant in Belen
  - Announced in March 2023
  - Anticipates 250 NM employees

"We look forward to expanding our manufacturing capacity to New Mexico, where market demand for new wind projects is robust," Antonio Carrillo, President and CEO of <u>Arcosa, Inc.</u>, said. "Our new facility will strengthen our position in the wind-tower market and enable Arcosa to benefit from growing wind investment in the Southwest. We are pleased to create new jobs in the State of New Mexico, which has been a supportive partner and a strong proponent of wind-energy development."





Arcosa towers. Source: NM Economic Development Dept.



# NM's Clean Energy Policy Environment

- Grid Modernization
   Roadmap Act
- Community Solar Act
  - 30% carve-out for low-income customers and service orgs
- Solar Market Development Tax Credit
- The Sustainable Building Tax Credit





### We Need a Modern Power Grid

The International Energy Agency issued a report this week that says nations across the world need to build or upgrade 50 million miles of power lines by 2040 to meet their stated goals for:

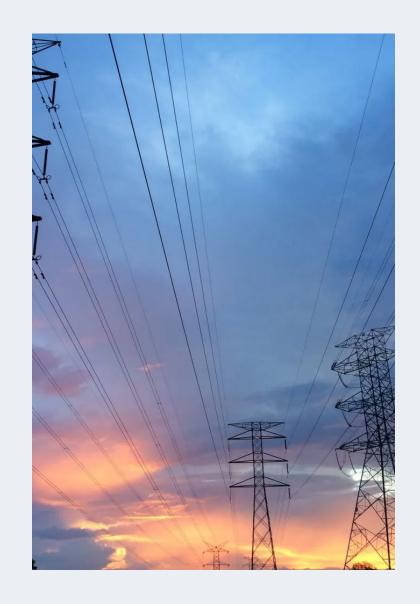
- Adding renewable energy
- Adopting electric vehicles
- Replacing gas furnaces with electric heat pumps.

The report also says this modern grid will have to be more resilient and flexible, which includes accommodating energy storage.



### We Need a Modern Power Grid

- The Legislature passed the Electric Grid Modernization Roadmap Act of 2020.
- A provision of the act directed EMNRD to establish a grant program to fund Grid Modernization Pilot Projects.
- These projects should demonstrate how a modern grid can:
  - Integrate renewable electric generation resources and/or
  - Enhance electric distribution or transmission grid reliability, grid security, demand response capability, customer service or energy efficiency or conservation.





### We Need a Modern Power Grid

### New Mexico is addressing this issue:

 The PRC requires investor-owned utilities to incorporate long duration energy storage (LDES) into their 2020 -2040 Integrated Resource Plans.



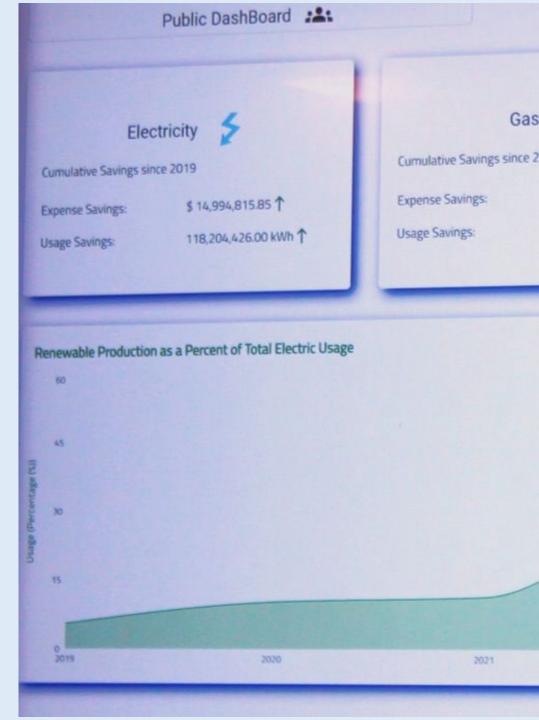


### Grid Modernization Pilots

EMNRD combined federal (Bipartisan Infrastructure Law), state, and local dollars to fund multiple grid modernization pilot projects.

#### **EMNRD Grant Awards FY22-23**

- City of Albuquerque Total Award: \$301K
   Total Project: \$600K
  - 'BRAIN' Balanced Resource Acquisition and Information Network
  - Energy database
  - Real-time demand response
- Northern New Mexico College Total Award: \$220K
  - Resilient El Rito project, El Rito campus
  - Microgrid feasibility and design studies
  - 1.5 MW solar + 2 MWh battery storage





#### Grid Modernization Pilots

#### **EMNRD Grant Awards FY24**

• City of Aztec Total Award: \$170K

Total Project: \$360K

- *Solar PV + Energy Storage* project
- Supports San Juan County energy transition
- 2 MW solar + 4 MWh battery storage
- New Mexico State Univ. Total Award: \$118K
  - Statewide Customer Choice Survey
  - Transportation electrification
  - Identify utility customer choice factors





## Public Regulation Commission

Partnership on Regional Transmission Organizations (RTOs) and Grid Modernization

#### Regional Transmission Organization Inquiry

- PRC Case No. 23-00268-UT
- NM investor-owned utilities
- Stakeholders and Cooperatives invited
- Workshop held September 21<sup>st</sup>
- IOUs, RETA, and other Stakeholders provided comments

An RTO could have many benefits like cost savings and efficiencies, while implementing two important market functions: a <u>Single Balancing Authority</u> and <u>Centralized Transmission Planning</u>.

#### **Grid Modernization Workshop Series**

- PRC workshops in 2022
- Participation by IOUs, EMNRD, RETA, and other Stakeholders
- EMNRD initiated action on Grid Modernization, 2020-2021:
  - Convened Advisory Group
  - Issued Roadmap and Baseline reports
- Workshops documented in Gridworks Report (2022)



# Partnership with DOE and EPA

Bipartisan Infrastructure Law (BIL) and Inflation Reduction Act (IRA)

- Electric Grid Resilience Upgrades
  - New Mexico award: \$35 million
  - BIL Section 40101(D) formula grant
  - State & Local funds/in-kind match
  - Managed by EMNRD Energy Conservation and Management Division (ECMD)
  - State/local governments & tribal organizations
  - RFP expected November 2023
- Project Goals
  - Reduce outages caused by natural hazards
  - Resilience measures using renewables and grid modernization
  - Strengthen community resilience
  - Grow resilience and sustainability workforce

- More Opportunities Coming!
  - \$250 million Solar For All application
  - IRA funding
  - Managed by EMNRD's Energy Office

EMNRD has \$500 million in BIL and IRA funding applications.

More innovation for New Mexico.



## Renewable Energy Transmission Authority

Partnership on Transmission & Storage Development

#### **Regional Participation**

- EMNRD and RETA
  - Recognized leaders in grid development
  - Input sought frequently for grid forums

#### Joint Expertise for New Mexico

- EMNRD
  - Broad clean energy innovation
  - State DOE conduit Funding
- RETA
  - Transmission development facilitator
  - Renewable energy developer conduit Economic Development

RETA transmission development: 800 MW of wind interconnected. A *staggering* 8,500 MW of new renewable transmission capacity is next.

RETA has facilitated \$2 billion in renewables and grid infrastructure, with \$16 billion more in construction or advanced development. *Tremendous economic development for New Mexico.* 



### **Looking Ahead**

- Additional regional cooperation work
  - CREPC (Committee on Regional Electric Power Cooperation)
  - WIEB (Western Interstate Energy Board)
  - EMNRD, PRC, RETA
- Energy storage next steps from this conference
- Decarbonizing the transportation sector, starting with:
  - Governor's Clean Car and Truck Rule
  - Hydrogen development
  - Zero-emission executive order for the state vehicle fleet
- Training programs to prepare New Mexicans for the renewable and energy efficient economy.
- Administering lots of BIL/IRA funding for grid modernization and clean energy transition



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# Thank you

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