New Mexico Comprehensive Energy Transition Strategy

Policy Memos - Grid Modernization

About CETS

The Comprehensive Energy Transition Strategy (CETS) is an initiative of the Energy, Minerals and Natural Resources Department (EMNRD) to develop New Mexico's first integrated roadmap for delivering reliable, affordable, safe, and sustainable energy. Launched in May 2025, the strategy will provide analysis and recommendations to guide near-, mid-, and long-term policy. These Draft Policy Memos form the CETS baseline analysis, combining research on existing policies and regulations with stakeholder engagement across the state legislature, agencies, industry, and advocacy organizations. Phase 2 (October 2025 - June 2026) will feature more extensive engagement and finalized recommendations.

Where New Mexico Stands Today

This context provides the foundation for the Phase I policy memos that follow.

Strong fiscal foundation
oil and gas revenues (currently about 40% of the general fund) and permanent funds that can support economic diversification.

Exceptional energy resources
including solar, wind, geothermal, and existing infrastructure with potential for regional transmission.

Community and workforce expertise
engaged Tribal and local communities, supportive policies, national laboratories, and skilled energy workforce.

Exposure to more extreme weather
increasing heat, droughts, and storms challenge grid resilience, energy reliability, and communities.

Phase 1: Policy Memos

New Mexico has made substantial progress in advancing its energy transition. Building on strong existing efforts, the policy memos in this phase identify strategic opportunities, implementation gaps, and enforcement challenges across nine critical areas:

1. **Innovation in Clean, Firm Power Generation**
Examines clean, firm power options—geothermal, nuclear, carbon capture, hydrogen, hydropower, and long-duration storage—to ensure reliability, affordability, and durable community support, advancing the energy transition.

2. **Grid Modernization**
Investigates how to align New Mexico's grid with its energy transition and economic growth goals and outlines targeted reforms to accelerate deployment and improve resilience.

3. **Electricity Transmission Capacity Expansion**
Examines the planning and permitting challenges that limit timely transmission deployment and outlines potential solutions to support transmission expansion to accelerate the clean energy transition.

4. **Decarbonization of the Building Sector**
Focuses on targeted reforms to strengthen the Sustainable Buildings Tax Credit, making it more equitable, transparent, and effective in driving building decarbonization statewide.

5. **Workforce Readiness and Equitable Opportunity**
Highlights opportunities to improve alignment between policy design and implementation, ensuring that New Mexico's clean energy investments deliver broad, equitable, and lasting economic benefits for its residents.

6. **Policy Implementation**
Examines how enhancing agency capacity, authority, tools, and resources can strengthen effective implementation of New Mexico's energy transition.

7. **Clear Subsurface Authorities and Definitions**
Explores how greater clarity for geologic hydrogen, geothermal, and methane can reduce uncertainty, attract investment, and advance New Mexico's energy transition.

8. **Energy Systems Data and Emissions Reporting**
Identifies data and governance gaps that limit New Mexico's ability to manage its energy transition effectively and outlines how to achieve close to real-time data visibility, evaluate policy impacts, and measure progress.

9. **Investing in the Future: Revenue Diversification**
Considers diversifying New Mexico's revenue base as the energy transition progresses into growing clean energy industries, reducing fiscal volatility, and stabilizing revenues.

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Memo #2: Future-proofing New Mexico's electric grid: Enhancing reliability, resilience, and sustainability to ensure it meets the demands of a rapidly evolving energy landscape

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To: Secretary Melanie Kenderdine, New Mexico Energy, Minerals, and Natural Resources Department
From: The Comprehensive Energy Transition Strategy (CETS) team
Date: October 7, 2025
Subject: Future-proofing New Mexico's electric grid: Enhancing reliability, resilience, and sustainability to ensure it meets the demands of a rapidly evolving energy landscape

Bottom Line Up Front

New Mexico's clean energy transition depends on modernizing its power grid to manage rising demand, integrate significant amounts of renewable energy, and continue to provide reliable service to households and industries. The state has already undertaken critical initiatives, namely, updating its Grid Modernization Roadmap, reforming Public Regulation Commission (PRC) planning rules, and scaling renewable development on state trust lands. Yet, gaps persist in planning authority, regulatory agility, and utility incentives. Grid data and coordination remain fragmented, and outdated methods for calculating the cost-effectiveness of energy efficiency investments will hinder deployment, increase costs, and compromise reliability. This memo identifies the key challenges in aligning New Mexico's grid with its decarbonization and economic growth goals and outlines targeted reforms such as granting the PRC explicit approval authority over integrated resource plans, expanding performance-based ratemaking to reward reliability and efficiency, embedding cybersecurity and advanced modeling into long-term grid planning, and enabling new tools such as dynamic line ratings, reconductoring, and virtual power plants (VPPs). Together, these measures would accelerate deployment, improve resilience, and ensure that New Mexico's grid remains the backbone of both its clean energy transition and its economic future.

Issue Statement

New Mexico's power grid – both transmission and distribution systems - is at a pivotal moment. State-wide decarbonization mandates under the Energy Transition Act will require 80% renewable electricity by 2040 and 100% zero-carbon by 2045 for the state's major utilities and 2050 for co-ops. New Mexico is projecting 40% load growth by 2040, driven by the growth of advanced industries, the electrification of end-uses like transportation and buildings, the expansion of data centers, and the electrification of oil and gas operations.[1]

The combination of load growth and the introduction of new technologies on the grid is adding pressure to a legacy, one-way grid built to send power from a few large plants to passive customers. Because hardware, controls, and interconnection rules were not designed for today's bi-directional, inverter-based system—with variable wind/solar, rooftop generation, and newly electrified loads that must be actively coordinated—transmission and distribution lines are congested and/or lack spare capacity. For example, within SPP's New Mexico service territory, median interconnection queues are currently 4.3 years.[2] Across New Mexico's electricity system, aging equipment is more easily stressed by heat and storms.

In order to achieve New Mexico's 80% renewable target by 2040 per the Energy Transition Act (ETA), the grid will therefore require unprecedented integration of variable resources, firm capacity, and storage, all while maintaining affordability, reliability, and resilience. Today, New Mexico's state agencies, utilities, and grid authorities are navigating capacity constraints, fragmented authority, and public opposition to siting new generating facilities that slow critical infrastructure deployment. Meeting the ETA's renewable target while maintaining affordability and reliability will require exceptional coordination and planning. While expanded transmission capacity is foundational, investments in grid modernization must account for radically changing power system needs.

A modernized grid also maximizes the value of existing infrastructure by enabling far greater utilization of its capacity, reducing the need for costly new capital projects. Advanced controls, distributed energy resources (DERs), and virtual power plants (VPPs) can shift demand and unlock hidden flexibility in the system. The Department of Energy (DOE)'s 2023 Virtual Power Plant Study concluded that broad VPP deployment could address 10-20% of peak load and save approximately $10 billion in annual grid costs nationally.[3] Beyond efficiency, a modern grid is also more resilient in the face of increasing climate risks. Severe weather caused 80% of major U.S. power outages between 2000 and 2023, and events like Winter Storm Uri in 2021 underscored the costs of brittle grid infrastructure.[4] Smart inverters, microgrids, and distributed storage can improve reliability and provide services like frequency control, while modern planning tools such as dynamic line ratings and reconductoring enhance flexibility under stress. Together, these investments reduce both the economic and human costs of outages while supporting long-term affordability.

New Mexico has already taken major steps to position itself for this transformation. In 2025, EMNRD updated its Grid Modernization Roadmap Report, which provides a detailed accounting of changes occurring within New Mexico's electricity systems.[5] The roadmap also offers several recommendations, ranging from accelerating smart meter deployment to reassessing current regulatory structures and utility incentive structures. The Public

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Regulation Commission (PRC) has also expanded integrated resource planning and launched a rulemaking on integrated distribution planning, while the Efficient Use of Energy Act (EUEA) demonstrates the Legislature's intent to align utility financial incentives with maximizing efficiency and load management. The State Land Office (SLO) has expanded renewable energy leases from one project in 2019 to nearly 30 GW today, including critical transmission corridors, yielding over $4 billion in revenue in Fiscal Year 2024.[6,7]

New Mexico can solidify its regional clean energy leadership by building and operating a grid that is both a platform for economic growth – by providing a reliable environment for new industrial and commercial electricity demand growth – and a backbone of the clean energy transition. Doing so will require long-term, integrated planning, robust investments in energy storage, accelerated deployment of both new and upgraded infrastructure, and policy and business models that enable greater coordination of electricity supply and demand.

Looking ahead, New Mexico can retain optionality by designing a grid strategy that allows multiple outcomes to remain viable as technology, markets, and community priorities evolve. This means advancing near-term investments in transmission, clean firm power generation, and storage while keeping space for new business models such as virtual power plants, microgrids, and industrial electrification. It also means using tools such as scenario-based modeling and a data digital platform to stress-test different futures, ensuring policymakers and investors can adapt as costs, technologies, and regional dynamics evolve. New Mexico can strengthen this effort by drawing on the expertise of its national laboratories. By embedding optionality into its long-term vision, New Mexico can position itself to adapt to uncertainty while still sending clear signals that the state is ready to support both economic growth and the clean energy transition.

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Supporting Analysis

This analysis draws on three primary sources: (1) review of relevant statutes, regulations, and policy frameworks; (2) semi-structured interviews with stakeholders across state agencies, industry, and advocacy groups; and (3) survey responses from over 60 stakeholders representing government, industry, community organizations, and research institutions. The triangulation of these methods reveals significant opportunities to accelerate New Mexico's clean energy transition through proactive grid planning, more agile regulatory frameworks and processes, and faster deployment mechanisms. These findings are described in further detail below.

Modernized approaches to how grid operators plan for and make grid investments can enable more affordable, reliable, and lower-carbon electricity.

New Mexico's clean energy transition requires more than incremental upgrades—it requires an integrated planning framework that aligns investments across the entire system. The PRC has begun moving in this direction by strengthening its integrated resource planning rules and, in 2025, proposing new distribution planning requirements.[8] Distribution planning is crucial because investments that maximize the efficiency and effectiveness of local distribution systems can reduce and/or delay the need to build new generation and transmission assets.[9] These steps recognize that modern grid challenges—ranging from variable renewable generation to electrification of heavy industry—cannot be managed in silos. Further, standards for connecting new assets to the grid will also need to be revisited. As one survey respondent wrote, "interconnection standards in New Mexico don't fully reflect what current technology can do. Smart inverters, storage, and other advanced systems are capable of supporting the grid in ways the old rules don't account for."

El Paso Electric has taken early steps toward integrated system planning, evaluating generation, transmission, and distribution needs in a single framework.[10] This emerging approach offers a path away from piecemeal projects and toward investments sequenced to deliver multiple system benefits. By coordinating investments, utilities can maximize customer reliability, contain long-term costs, and align capital spending with New Mexico's broader clean energy and economic development goals. Transparent, integrated planning also strengthens regulatory oversight and public trust by making trade-offs and priorities clearer to communities.

As New Mexico modernizes its grid, rising cybersecurity risks must be treated as a core planning challenge. Stakeholders emphasized that electricity has become "infrastructure's infrastructure"—the system on which every other service, from water treatment to fire protection, depends. New Mexico could be a target, in particular, given that it hosts so many national defense assets, like the national laboratories, Kirtland Air Force Base, and the White Sands Missile Range. Yet as utilities deploy smart meters, remote monitoring and controls, and other digital tools, the grid becomes more exposed to cyberattacks. New Mexico does not currently have a coordinated cybersecurity strategy for distributed energy systems, leaving gaps in resilience planning. A comprehensive approach will require joint action by the PRC, EMNRD, utilities, and national laboratories to develop statewide cyber standards, ensure interoperability, and integrate cyber resilience into long-term transmission and distribution planning.[11]

Regulatory processes themselves must also evolve to keep pace with a rapidly changing grid. Current planning and permitting systems can span many years, locking in outdated assumptions before projects are even constructed. To speed these processes, states like Missouri have passed legislation establishing that if the utility commission accepts a utility's preferred resource plan within its IRP, that approval also establishes permission for the utility to begin investing in the new resources.[12] In contrast, in part because NM's PRC does not have explicit authority to approve or reject utility IRPs, NM's

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regulations surrounding IRPs state that acceptance of a utility's action plan does not necessarily mean the utility is authorized to recover costs associated with implementing the action plan.[13] Emerging concepts go further by proposing mechanisms like scenario-based planning and approvals, fast-track reviews and approvals for projects that are backed by investments from large sources of load, and formalizing early-stage customer participation in planning processes.[14]

Equally important is aligning utility financial incentives with the state's priorities of reliability, affordability, and achieving clean energy goals. Hawaii has demonstrated one ambitious model through the adoption of performance-based ratemaking, shifting utility earnings toward measurable outcomes such as cost control, customer engagement, and renewable integration.[15] New Mexico has already taken a partial step in this direction through the Efficient Use of Energy Act, which explicitly seeks to decouple a portion of utility revenues from kilowatt-hour sales to reward efficiency and demand-side management.[16] Other states have advanced more incremental reforms, such as introducing performance incentive mechanisms tied to grid reliability or shared-savings programs that split the benefits of efficiency between utilities and customers.[17] EMNRD's 2025 Grid Modernization Roadmap emphasizes that reexamining incentive structures is essential to ensure that utilities view investments in efficiency, storage, and distributed energy resources not as revenue threats but as core elements of a modern, least-cost grid.

Potential Solutions

The Legislature could enact statutory requirements around utility planning, investments, and programs to maximize the utilization and efficiency of the grid. HB 13, introduced in 2025, includes many of these components, like distribution planning, reporting on timelines to energize and interconnect customers, and deployment of virtual power plants.[18] The requirements could be expanded to include integrated system planning, ensuring that investments are considered on a system-wide basis. The organization Energy and Environmental Economics published a guide on integrated resource planning, which could serve as a basis for a PRC rulemaking. Such components could be paired with updates to the Efficient Use of Energy Act to grant explicit authority for the PRC to approve (or reject) utility resource plans and, in turn, use that approval to automatically authorize utilities to invest based on those plans, like the law passed in Missouri that was described above.

The Legislature could enact statutory changes to expand performance-based ratemaking in New Mexico, **building on the foundation set by the Efficient Use of Energy Act's partial decoupling of utility revenues from kilowatt-hour sales.** Hawaii's precedent represents a full-fledged transition to performance-based ratemaking. If New Mexico prefers a more incremental approach, the Legislature could direct the PRC to develop mechanisms like performance incentive metrics and shared savings agreements. RMI has developed a database of performance mechanisms that have been adopted

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across the U.S., many of which could serve as models.[19] EMNRD could play a convening role in designing a New Mexico framework that balances utility financial health with measurable progress toward reliability, affordability, and decarbonization.

The Legislature could amend the Public Regulation Commission Act to add oversight of grid security, including cybersecurity. The amendment could direct the PRC to establish minimum standards for physical and cyber protection of utility systems, drawing on frameworks such as NIST and NERC Critical Infrastructure Protection Reliability Standards for the bulk power system. This would extend New Mexico's recent progress under the Cybersecurity Act of 2023 and Executive Order 2024-011, which created statewide baselines for agency cybersecurity, to the utilities that operate the state's most critical infrastructure.[20,21] The PRC could coordinate with the Department of Information Technology's Cybersecurity Office and national laboratories to align standards, reporting, and training. Michigan's Public Service Commission offers a useful model, requiring utilities to maintain and update cybersecurity and grid-security plans subject to Commission review.[22]

> A modern grid will include deployment of new technologies, greater coordination of assets system-wide, and a consistent focus on efficiency and system utilization.

Together with other stakeholders, policymakers are rethinking how (and when) electricity is generated, transported, and consumed; New Mexico can build upon other states' successes. In Vermont, Green Mountain Power (GMP) pioneered a utility-sponsored virtual power plant (VPP) that installed Tesla Powerwall batteries in roughly 1,200 homes, aggregating them into a 10 MW system that provided backup power during outages and reduced peak demand. The program saves customers over $3 million annually through lower system costs and has enabled GMP to defer investments in new peaking power plants.[23]

Residential storage can also provide backup power and resilience to vulnerable families. Low-income households are more likely to experience negative impacts from extreme heat, drought, and wildfires, yet have less access to backup generation that could provide protection during emergencies.[24] Extreme heat can create significant health risks, especially for households lacking electricity and air conditioning, which includes as much as 40% of the Navajo Nation.[25] Yet households with the highest vulnerability often have the least access to backup generation, distributed energy resources, and resilience programs.[26,27,28] Expanding access to distributed energy resources and community resilience programs could help ensure that the populations most vulnerable to climate impacts have the resources they need to weather emergencies safely.

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A second approach, called dynamic line ratings, involves installing sensors that measure real-world conditions like temperature and wind to calculate how much power the lines can safely carry at any moment. This approach enabled the northeastern utility National Grid to increase transmission capacity by up to 20-30% from existing lines without building new ones, easing congestion and making better use of the grid.[29]

A third approach, called reconductoring, replaces old wires on power towers with newer, higher-capacity conductors. Experts estimate reconductoring can double a line's capacity, cost less than half as much as building new lines, and be completed in 18–36 months, though such upgrades must be considered on a system-wide basis to avoid simply pushing congestion to other parts of the grid.[30]

Energy storage remains underutilized but is set to expand. Grid managers must always maintain a perfect balance between electricity production and consumption. Energy storage provides flexibility by absorbing excess generation when supply is high and releasing it during times of high electricity demand, when electricity prices increase. By enabling such flexibility, energy storage can enable a more affordable and resilient grid and greater integration of renewable energy, while deferring the need for costly grid upgrades.

In reviewing the landscape of energy storage deployment in New Mexico, the 2022 RETA Transmission Study noted that only four projects were active at the time and projected that the high cost of storage could limit its deployment in the near term. Indeed, as the costs of energy storage continue to decline, storage is becoming a significant component of utilities' future portfolios. On the cost side, the 2022 transmission study estimated the cost of lithium-ion batteries between $362-$392/kWh. A 2025 analysis from NREL estimates installed costs have dropped to $334/kWh and projects a continued decline to $254/kWh by 2035, though those costs will likely increase with tariffs.[31] Utilities are taking notice. For example, PNM's 2023 IRP included over 1,000 MW of storage deployment by 2030.[32] SPP's interconnection queue for New Mexico shows 2.5 GW of storage, nearly all of which entered the queue in 2025.[33] While RETA has not yet partnered on a storage project, its recent transmission and storage planning RFP includes a large focus on planning for the role of storage in maximizing the state's renewable energy development.

Novel longer-duration storage technologies promise to transform how intermittent renewables support steady load and the reduction of industrial emissions. Long-duration energy storage, like Form Energy's iron-air batteries, capable of delivering power for up to 100 hours, unlocks multi-day reliability at costs far lower than lithium-ion, addressing gaps during extended lulls in wind and solar. While Form aims to achieve a long-run cost of $20/kWh; a 2023 grant to Form pegs the total project cost of one of the company's earliest deals at around $333/kWh.[34] And on the industrial side, thermal batteries like those from Rondo Energy store renewable electricity as ultra-high-temperature heat that can be dispatched continuously for industrial processes as high as 1,500°C or converted back to electricity, displacing fossil fuels in one of the hardest-to-

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decarbonize sectors. Costs for Rondo's system were not publicly available, but an article on a 2 MWh operating facility notes the project supplies energy "at a cost per MMBTu lower than gas-fired heat."[35]

By lowering overall demand and especially reducing peak load, efficiency investments help avoid costly grid expansions and improve reliability during extreme weather events. Many low-income households in New Mexico live in older, less energy-efficient homes that drive up monthly utility bills.[36] These aging houses often have poor insulation, outdated heating and cooling systems, and inefficient appliances that consume more energy to provide the same comfort. Inefficient homes, in turn, cause additional strain on the grid during times of extreme weather, as well as significant health impacts. Highly efficient housing can "simultaneously protect people and structurally reduce peak load" at a cost that is competitive with adding new decarbonized generation.[37] Those grid benefits could be expanded when paired with controllable thermostats because grid operators could temporarily ramp down HVAC systems during times of extreme grid stress with minimal impact on family comfort and safety. Yet, there is a bias toward new generation supply because those costs are distributed across ratepayers, whereas building efficiency costs are more likely to be privatized.

Greater spending on residential energy efficiency could also reduce energy costs for struggling New Mexican families. The average energy burden for households in New Mexico with the lowest incomes is seven percent higher than the national average. Yet, despite an estimated 172,876 households in the state qualifying for weatherization assistance, New Mexico's program has weatherized only about 10,388 homes since 2010, reaching just about 1 in 17 eligible households.[38,39, 40]

Spending on efficiency programs through the Efficient Use of Energy Act (EUEA) could help address this gap by supporting weatherization, but the law imposes two important limits. First, utilities may invest no more than 5% of their total revenues in efficiency programs. Second, all efficiency investments must meet a statutory cost-effectiveness test, which requires that program benefits to ratepayers exceed costs over time.[41] While this test ensures prudent use of funds, it often disfavors deeper weatherization measures with higher upfront costs and longer payback periods, such as whole-home retrofits, even though these projects can deliver significant long-term savings and resilience benefits. The test can also ignore health benefits associated with such investments.

Potential Solutions

The Legislature could require the PRC to establish a statewide energy storage deployment target. Building on the framework proposed in SB 456 (2023), the Legislature could direct the PRC to set binding, application-agnostic storage targets that account for the full range of potential uses—such as grid reliability, renewable integration, industrial heat, and load management.[42] The rule could require investor-owned utilities and

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cooperatives to incorporate storage deployment into their integrated resource and distribution plans, while allowing flexibility in how capacity is met through ownership, procurement, or partnerships. This approach would complement HB 93 (2025), which already enables utilities to recover costs for grid-enhancing technologies and storage investments, ensuring that storage is treated as a core reliability and affordability resource rather than a niche technology.[43]

The Legislature could authorize the PRC to allocate a reasonable share of each utility's resource budget for innovation pilots—projects that are riskier but could yield outsized reliability, cost, or resilience gains (e.g., advanced controls, VPPs, adaptive reconductoring). California's Electric Program Investment Charge (EPIC) program, which invests ~$130 million annually in clean energy R&D and demonstration projects via ratepayer funding, provides one example of how to structure such a fund under regulatory oversight.[44] In addition, utilities in California use EPIC to test grid modernization, DER integration, and advanced technologies under controlled conditions.[45]

The Legislature could amend both the Efficient Use of Energy Act (EUEA) and the Public Utility Act (PUA) to adopt a benefit-cost framework for efficiency programs. Amendments to the EUEA would raise the existing 5% cost cap on utility energy efficiency programs and authorize the inclusion of non-energy benefits such as resilience, reliability, health, emissions reductions, and social equity impacts in cost-effectiveness testing. Parallel amendments to the PUA (e.g., Section 62-8-1 NMSA 1978) would direct the PRC to adopt a benefit-cost analysis framework consistent with these expanded criteria and to apply it across resource planning, procurement, and rate cases. In New York, the DPS's Benefit Cost Analysis Handbook explicitly allows for inclusion of non-energy impacts in program and project evaluations.[46] To apply this in New Mexico, EMNRD could convene stakeholder working groups to tailor benefit categories and data sources, while the Legislature redefines screening limits and the PRC implements the modified cost test in resource planning and procurement dockets.

EMNRD could partner with universities, utilities, NGOs, and other state agencies to develop a digital model of New Mexico's electricity system. Such a platform would build on work like the New York Power Authority's AGILe project, which has created a full digital model of the state's grid to stress-test investments and plan for high renewable penetrations.[47] A New Mexico digital model could integrate data from utility IRPs, distribution planning, RETA's transmission planning, and AMI meters to simulate scenarios such as industrial load growth, resource retirements, and cyber events. New Mexico could also partner with the Department of Energy and the national laboratories to leverage data from existing grid modernization analyses, like the national transmission needs study.[48] As an interim step, EMNRD could partner with organizations like the Electric Power Research Institute to conduct integrated system modeling.[49]

EMNRD could partner with its two national laboratories, Sandia and Los Alamos, to engage in research on intermittent integration and support robust grid planning. Sandia's Grid Integration and Power Systems and Advanced Grid Modeling teams can run capacity-expansion and production-cost studies, improve wind and solar integration models, and analyze transmission and storage portfolios using tools such as the open-source QuESt Planning model.[50,51,52] Los Alamos can complement that work through its Energy Infrastructure and Advanced Grid Modeling programs by modeling reliability and transfer capability, planning for microgrids, and stress-testing plans against extreme events across electricity and natural gas systems.[53,54] Such a partnership could be structured as a "Work for Others" agreement or one of many partnering mechanisms included in DOE's Guide to Partnering with DOE's National Laboratories.[55]

Rural cooperatives, community solar, and Tribal energy sovereignty can strengthen grid modernization, but statutory refinements are needed to unlock their full potential.

Rural cooperatives face structural constraints that limit their ability to serve their communities' clean energy needs. Many of these co-ops are members of Tri-State Generation and Transmission Association, a wholesale power supplier that provides electricity to dozens of rural electric cooperatives across Colorado, New Mexico, Wyoming, and Nebraska. Because leaving a Tri-State contract requires paying a steep exit fee, cooperatives that want to pursue more local renewable energy face significant financial barriers. For those that remain in Tri-State, support may be needed to ensure the association itself can expand clean energy offerings that meet rural communities' needs. For those considering independence, policies that reduce exit costs or provide transition assistance may be necessary to make clean energy strategies feasible.

Community solar program design creates implementation barriers that limit communities' ability to enroll in the program. While the Community Solar Act includes low-income carveouts, meaning 30% of a given subscription must serve low-income subscribers, several design features create obstacles for the communities the program aims to serve. Interconnection delays—often stretching months or years—impact project development timelines and increase costs that get passed on to subscribers. Current utility compensation structures lack strong incentives for prioritizing community solar interconnections, which contributes to these delays. The 5 MW project cap in the Act limits individual community solar projects to a relatively small size, which may reduce the economic viability of community solar projects in areas where development costs are higher and larger projects would be needed to achieve economies of scale and deliver lower subscription costs to participants.

The Community Solar Act's program design features can unintentionally limit low-income households' ability to benefit from distributed solar. One barrier is the dual-

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billing requirement, which obligates participating households to pay two separate bills—one to their utility for grid services and another to their solar provider for energy generation. For families already managing tight budgets, this added complexity can discourage participation. Another limitation is the absence of virtual net metering, which would allow energy credits from a single community solar installation to be distributed across multiple units or accounts, and this enables renters to continue to receive their solar credits on their bill if they move within the same utility service territory, further reducing barriers to accessing solar for non-homeowners. Without this mechanism, residents of multifamily affordable housing—many of whom lack access to individual rooftops—are excluded from the savings community solar is designed to provide. Additionally, the rescission of federal funding, such as the Solar for All program, has reduced available resources for supporting low-income participation in distributed solar programs, making state-level program design improvements even more critical for ensuring access.

Potential Solutions

The Legislature could amend the Community Solar Act to enable virtual net metering, allowing credits from one solar project to be shared across multiple accounts in master-metered affordable housing or multifamily buildings. The PRC could then set allocation rules, streamline billing, and adopt consumer protections. Paired with consolidated billing, utilities could automatically enroll qualifying households—such as those in LIHEAP or affordable housing programs—on an opt-out basis, eliminating dual bills that discourage participation. These refinements would extend community solar access to renters and low-income households, making the program a more effective tool for equitable grid modernization.

Summary of Potential Solutions

Key
Solution may be pursued through:
Legislative Action
Administrative/Regulatory Action

Table 1. Feasible and Impactful Solutions

Gap	Feasible and Impactful Solutions
Modernized approaches to how grid operators plan for and make grid investments can enable more affordable,	**The Legislature could enact statutory requirements around utility planning, investments, and programs to maximize the utilization and efficiency of the grid.** HB 13, introduced in 2025, includes many of these components, like distribution planning, reporting on timelines to energize and interconnect customers, and deployment of virtual power plants. The requirements could be expanded to include integrated system planning, ensuring that investments are considered on a system-wide basis. The organization Energy and Environmental Economics published a guide on integrated resource planning, which could serve as a basis for a PRC rulemaking. Such components could be paired with updates to the Efficient Use of Energy Act to grant explicit authority for the PRC to approve (or reject) utility resource plans and, in

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reliable, and lower-carbon electricity.	turn, use that approval to automatically authorize utilities to invest based on those plans, like the law passed in Missouri that was described above.
	The Legislature could enact statutory changes to expand performance-based ratemaking in New Mexico, building on the foundation set by the Efficient Use of Energy Act's partial decoupling of utility revenues from kilowatt-hour sales. Hawaii's precedent represents a full-fledged transition to performance-based ratemaking. If New Mexico prefers a more incremental approach, the Legislature could direct the PRC to develop mechanisms like performance incentive metrics and shared savings agreements. RMI has developed a database of performance mechanisms that have been adopted across the U.S., many of which could serve as models. EMNRD could play a convening role in designing a New Mexico framework that balances utility financial health with measurable progress toward reliability, affordability, and decarbonization.
	The Legislature could amend the Public Regulation Commission Act to add oversight of grid security, including cybersecurity. The amendment could direct the PRC to establish minimum standards for physical and cyber protection of utility systems, drawing on frameworks such as NIST and NERC Critical Infrastructure Protection Reliability Standards for the bulk power system. This would extend New Mexico's recent progress under the Cybersecurity Act of 2023 and Executive Order 2024-011, which created statewide baselines for agency cybersecurity, to the utilities that operate the state's most critical infrastructure. The PRC could coordinate with the Department of Information Technology's Cybersecurity Office and national laboratories to align standards, reporting, and training. Michigan's Public Service Commission offers a useful model, requiring utilities to maintain and update cybersecurity and grid-security plans subject to Commission review.
A modern grid will include deployment of new technologies, greater coordination of assets system-wide, and a consistent focus on efficiency and system utilization.	**The Legislature could require the PRC to establish a statewide energy storage deployment target.** Building on the framework proposed in SB 456 (2023), the Legislature could direct the PRC to set binding, application-agnostic storage targets that account for the full range of potential uses—such as grid reliability, renewable integration, industrial heat, and load management. The rule could require investor-owned utilities and cooperatives to incorporate storage deployment into their integrated resource and distribution plans, while allowing flexibility in how capacity is met through ownership, procurement, or partnerships. This approach would complement HB 93 (2025), which already enables utilities to recover costs for grid-enhancing technologies and storage investments, ensuring that storage is treated as a core reliability and affordability resource rather than a niche technology.
	The Legislature could authorize the PRC to allocate a reasonable share of each utility's resource budget for innovation pilots—projects that are riskier but could yield outsized reliability, cost, or resilience gains (e.g., advanced controls, VPPs, adaptive reconductoring). California's Electric Program Investment Charge (EPIC) program, which invests ~$130 million annually in clean energy R&D and demonstration projects via ratepayer funding, provides one example of how to structure such a fund under regulatory oversight. In addition, utilities in California use EPIC to test grid modernization, DER integration, and advanced technologies under controlled conditions.
	The Legislature could amend both the Efficient Use of Energy Act (EUEA) and the Public Utility Act (PUA) to adopt a benefit-cost framework for efficiency programs. Amendments to the EUEA would raise the existing 5% cost cap on utility energy efficiency programs and authorize the inclusion of non-energy benefits such as resilience, reliability, health, emissions reductions, and social equity impacts in cost-effectiveness testing. Parallel amendments to the PUA (e.g., Section 62-8-1 NMSA 1978) would direct the PRC to adopt a benefit-cost analysis framework consistent with these expanded criteria and to apply it across resource planning, procurement, and rate cases. In New York, the DPS's Benefit Cost Analysis Handbook explicitly allows for inclusion of non-energy impacts in program and project evaluations. To apply this in New Mexico, EMNRD could convene stakeholder working groups to tailor benefit categories and data sources, while the Legislature redefines screening limits and the

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	PRC implements the modified cost test in resource planning and procurement dockets.
	EMNRD could partner with universities, utilities, NGOs, and other state agencies to develop a digital model of New Mexico's electricity system. Such a platform would build on work like the New York Power Authority's AGILe project, which has created a full digital model of the state's grid to stress-test investments and plan for high renewable penetrations. A New Mexico digital model could integrate data from utility IRPs, distribution planning, RETA's transmission planning, and AMI meters to simulate scenarios such as industrial load growth, resource retirements, and cyber events. New Mexico could also partner with the Department of Energy and the national laboratories to leverage data from existing grid modernization analyses, like the national transmission needs study. As an interim step, EMNRD could partner with organizations like the Electric Power Research Institute to conduct integrated system modeling.
	EMNRD could partner with its two national laboratories, Sandia National Laboratories and Los Alamos National Laboratory, to engage in research on intermittent integration and support robust grid planning. Sandia's Grid Integration and Power Systems and Advanced Grid Modeling teams can run capacity-expansion and production-cost studies, improve wind and solar integration models, and analyze transmission and storage portfolios using tools such as the open-source QuESt Planning model. Los Alamos can complement that work through its Energy Infrastructure and Advanced Grid Modeling programs by modeling reliability and transfer capability, planning for microgrids, and stress-testing plans against extreme events across electricity and natural gas systems. Such a partnership could be structured as a "Work for Others" agreement or one of many partnering mechanisms included in DOE's Guide to Partnering with DOE's National Laboratories.
Rural cooperatives, community solar, and Tribal energy sovereignty can strengthen grid modernization, but statutory refinements are needed to unlock their full potential.	**The Legislature could amend the Community Solar Act to enable virtual net metering, allowing credits from one solar project to be shared across multiple accounts in master-metered affordable housing or multifamily buildings.** The PRC could then set allocation rules, streamline billing, and adopt consumer protections. Paired with consolidated billing, utilities could automatically enroll qualifying households—such as those in LIHEAP or affordable housing programs—on an opt-out basis, eliminating dual bills that discourage participation. These refinements would extend community solar access to renters and low-income households, making the program a more effective tool for equitable grid modernization.

Stakeholder Overview

The following table and list highlight examples of legislative champions (lawmakers who have sponsored or supported policies relevant to grid modernization) and other stakeholders whose roles, expertise, or influence intersect with grid modernization issues in New Mexico.

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Table 2. Potential Legislative Champions

Role	Name	District	Justification
Senator	Mimi Stewart	17	Senate President Pro Tempore; sponsor and supporter of legislation establishing the Community Benefit Fund, which includes grid modernization among eligible uses; strong interest in transmission expansion and geothermal.
Rep	Meredith Dixon	20	Vice Chair of the House Appropriations & Finance Committee and Member of the House Energy, Environment, & Natural Resources Committee; active in advancing grid modernization legislation
Rep	Angelica Rubio	35	Known for advancing clean energy and equity legislation; co-sponsored workforce and economic transition bills relevant to energy infrastructure buildout.
Senator	Liz Stefanics	39	Chair of Senate Conservation Committee and Water & Natural Resources Committee; introduced legislation in 2023 to set statewide targets for energy storage deployment
Rep	Kristina Ortez	42	Focuses on environmental policy, just transition, and rural economic development; engaged in legislative discussions on clean energy benefits for rural and tribal communities.

Preliminary List of Key Stakeholders

- **Regulatory Agencies:** Public Regulation Commission (PRC), Renewable Energy Transmission Authority (RETA)
- **State Agencies:** Energy, Minerals, and Natural Resources Department (EMNRD), State Land Office (SLO), New Mexico Finance Authority (NMFA)
- **Investor-Owned Utilities:** Public Service Company of New Mexico (PNM), El Paso Electric, SPS/Xcel Energy
- **Electric Cooperatives:** New Mexico Rural Electric Cooperative Association and its member co-ops; Tri-State Generation & Transmission; Western Farmers Electric Cooperative
- **Tribal Governments and Organizations:** Tribal governments, All Pueblo Council of Governors, Navajo Nation, and other intertribal entities
- **Transmission Developers:** Pattern Energy, Invenergy, NextEra, and other private transmission developers active in New Mexico
- **Labor Organizations:** New Mexico Building and Construction Trades Council, International Brotherhood of Electrical Workers (IBEW)

- **Community-Based and Environmental Organizations:** NM Coalition of Sustainable Communities, Conservation Voters NM Education Fund, Four Corners Economic Development
- **Research and Technical Institutions:** Sandia National Laboratories, Los Alamos National Laboratory, University of New Mexico (UNM), New Mexico Tech (NMT)

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