INVESTING IN A MODERN ELECTRIC GRID FOR NEW MEXICO

SEPTEMBER 2022

GRIDWORKS

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The conclusions and recommendations set forth in this paper represent the professional perspective of Gridworks who maintains editorial independence. These recommendations are informed by, but not representative of, participating stakeholders or the New Mexico Public Regulation Commission.

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INTRODUCTION

To achieve its ambitious clean energy and reliability goals New Mexico needs to begin investing in grid modernization. A critical step toward that investment is the adoption of new grid modernization rules by the New Mexico Public Regulation Commission (Commission). This report identifies the action needed from the Commission.

As the precursor to developing a Grid Modernization Notice of Proposed Rulemaking (NOPR), the Commission partnered with Gridworks (www.gridworks.org) to complete a stakeholder engagement process through which the challenges and opportunities of grid modernization in New Mexico may be better understood. Executed between February and July 2022, these discussions demonstrated the urgent opportunity of grid modernization in New Mexico. To begin seizing this opportunity, Gridworks recommends that the Commission develop a grid modernization NOPR to accomplish the following:

A. Clearly establish the Commission's regulatory intent through stated **goals and principles** for comprehensive grid modernization;

B. Require regulated utilities to develop and file comprehensive **Grid Modernization Plans**;

C. Specify how the Commission will **evaluate, approve, or reject** utility Grid Modernization Plans and projects;

D. Show how the Commission will coordinate the Commission's **grid modernization policy and decision-making** with related proceedings;

E. Establish expectations for the Commission to **revisit any adopted grid modernization rules** at regular intervals.

In support of these recommendations, this report provides:

- an overview of the legislative and regulatory background for New Mexico's grid modernization efforts;
- a summary of workshops hosted by Gridworks on grid modernization, with key takeaways and challenges organized by topic; and
- conclusions and recommendations.

BACKGROUND

In 2019 the New Mexico Legislature passed the Energy Transition Act setting a statewide renewable energy standard of 50 percent by 2030 for New Mexico investor-owned utilities and rural electric cooperatives and a goal of 80 percent by 2040, in addition to setting zero-carbon resources standards for investor-owned utilities by 2045. The legislature then followed up in 2020, adopting the Energy Grid Modernization Roadmap Act (HB233).[1] The statute defines "grid modernization" as:

> "...improvements to electric distribution or transmission infrastructure, including related data analytics equipment, that are designed to accommodate or facilitate the integration of renewable electric generation resources with the electric distribution grid or to otherwise enhance electric distribution or transmission grid reliability, grid security, demand response capability, customer service or energy efficiency or conservation. . ."[2]

To implement grid modernization, this legislation directs the Energy, Minerals, and Natural Resources Department (EMNRD) to create a strategic plan for energy grid modernization and empowers the Commission to direct utility investments toward that end. Section 3 of the statute defines a utility "application for Grid Modernization Project," including the following specifications:

> (1) advanced metering infrastructure and associated communications networks;
>
> (2) intelligent grid devices for real time or near-real time system and asset information;
>
> (3) automated control systems for electric transmission and distribution circuits and substations;
>
> (4) high-speed, low-latency communications networks for grid device data exchange and remote and automated control of devices;
>
> (5) distribution system hardening projects for circuits, not including the conversion of overhead tap lines to underground service and substations designed to reduce service outages or service restoration times;
>
> (6) physical security measures at critical distribution substations;
>
> (7) cybersecurity measures;
>
> (8) systems or technologies that enhance or improve distribution system planning capabilities by the public utility;
>
> (9) technologies to enable demand response;
>
> (10) energy storage systems and microgrids that support circuit-level grid stability, power quality, reliability or resiliency or provide temporary backup energy supply;
>
> (11) infrastructure and equipment necessary to support electric vehicle charging or the electrification of community infrastructure or industrial production, processing, or transportation; and
>
> (12) new customer information platforms designed to provide improved customer access, greater service options and expanded access to energy usage information."

1 Energy Grid Modernization Roadmap Act of 2020 (71-11-1 NMSA 1978).
2 *ibid*

HB 233 goes on to suggest what should be considered when evaluating whether a utility Grid Modernization application should be approved or rejected. (Those factors for consideration are included in final section of this report, Conclusions and Recommendations.)

As a result of the legislation, EMNRD convened the Grid Modernization Advisory Group (GMAG) in the fall of 2020 to create a Roadmap to "...serve as a guide to electric service providers, regulators, policymakers and consumers...". The GMAG also produced a series of 11 action-oriented position papers to inform New Mexico's grid modernization roadmap, covering diverse topics such as advanced metering infrastructure (AMI), rate design, and storage. In 2021-2022 the EMNRD produced a roadmap which conveyed the recommendations of the GMAG.[3]

3 https://www.emnrd.nm.gov/ecmd/grid-modernization/

GRID MODERNIZATION WORKSHOP SERIES SUMMARY

Empowered by HB233 and informed by the GMAG's recommendations, the Commission prioritized the development of new regulations (a "Notice of Proposed Rulemaking") addressing grid modernization[4] and partnered with Gridworks to lead a stakeholder process toward that end. Gridworks developed a series of 10 workshops, held over six months, to introduce and discuss content and procedural aspects of grid modernization for consideration in the NOPR. Each 1.5-hour virtual workshop provided presentations from nationally-recognized content experts, who presented on state-of-the-art grid modernization components and best practice processes in the industry. Following these presentations, Gridworks facilitated discussions with utilities and stakeholders to answer questions about the materials presented and to identify themes, concerns, and opportunities for each grid modernization element.

A total of 54 organizations participated in the series, including leaders from state government, utilities, advocates, community organizations and industry. Each workshop was documented through recordings and publicly disseminated notes documenting key stakeholder perspectives. Workshop topics, dates, participants, recordings and notes can be found at https://gridworks.org/initiatives/prcs-2022-grid-modernization-webinar-series-2/.

What follows is a summary of each workshop by topic. Each summary includes key "takeaways" and "challenges." The former were provided by contributing expert presenters, as referenced; the latter emerged from stakeholder discussion, reflecting potential areas where stakeholders may disagree.

4 O'Donnell, Arthur. *How New Mexico is modernizing its grid for reliability 2022*, Slide 12. February 17, 2022

INTEGRATED DISTRIBUTION PLANNING

Key Takeaways:[5]

- The grid is evolving to accommodate bidirectional power flow with significant penetrations of solar photovoltaics, energy storage, electric vehicles, and demand response. Integrated distribution planning is a tool utilities and their regulators use to navigate that change.
- Costs are also a driver for increased attention to distribution planning. Distribution system investments account for the largest portion (32%) of capex for U.S. investor-owned utilities: $46.4B (projected) in 2021.
- As illustrated in Figure 1, integrated distribution planning begins with principles and objectives which shape the system's functions and requirements.
- At least 14 states have adopted rules governing distribution planning. Stakeholder engagement has been integral to many of these processes.
- An integrated distribution plan may include the following elements: accounting of baseline information on the current state of the distribution system (e.g., historical spending by category), description of planning process, Distributed Energy Resource forecast, hosting capacity analysis, grid needs assessment, and Non-Wires Solutions.

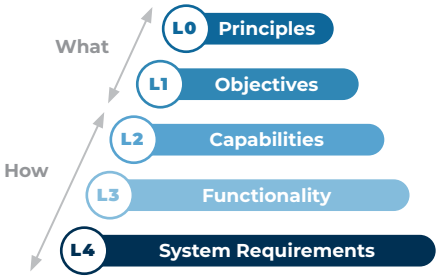


FIGURE 1.

- Outside of New Mexico grid modernization has been treated as a subset of integrated distribution planning. In New Mexico the reverse is true: distribution planning is referred to as a part of Grid Modernization and the concept of Grid Modernization includes elements of the transmission and bulk power system.

Challenges:

- The elements of integrated distribution planning are complex, require time and add administrative cost to regulatory and utility practices. The Commission faces tradeoffs in which elements to prioritize. For example, Non-Wire Solutions may present opportunities for cost savings, while Hosting Capacity Analysis may speed the interconnection of clean energy. Which opportunity should be prioritized?
- Linking integrated distribution plans and integrated resource plans can provide a more holistic accounting of available resources and customer needs, but aligning these processes can be difficult. The Commission faces a challenge in whether to change how integrated resource planning is conducted to account for grid modernization.

5 Schwartz, Lisa (Lawrence Berkeley National Lab). *Integrated Distribution Planning Overview.* March 3, 2022.

ADVANCED METERING INFRASTRUCTURE AND COMMUNICATION TECHNOLOGY

Key Takeaways:[6]

- Advanced Metering Infrastructure (AMI) is an integrated collection of technologies that provides a digital connection between the consumer and utility operator. Figure 2 illustrates these technologies.

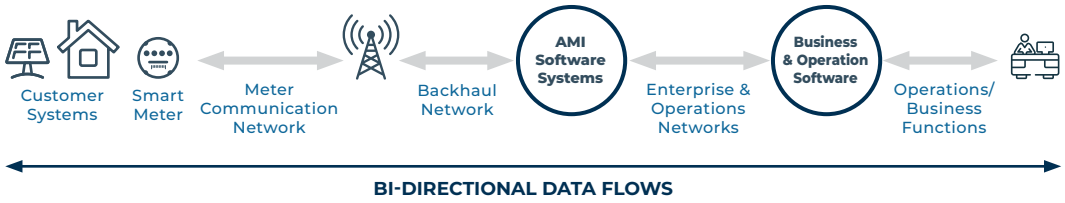


FIGURE 2.

- Key features of AMI include: automated meter reading, time-of-use measurement, remote disconnect and connect, outage and restoration notification. The Department of Energy has identified these features as key to achieving reliability, reduction in peak demand, resilience and security.
- As of 2021, 115 million advanced meters have been deployed in the US. New Mexico has lower deployment than other states. (See Figure 3)

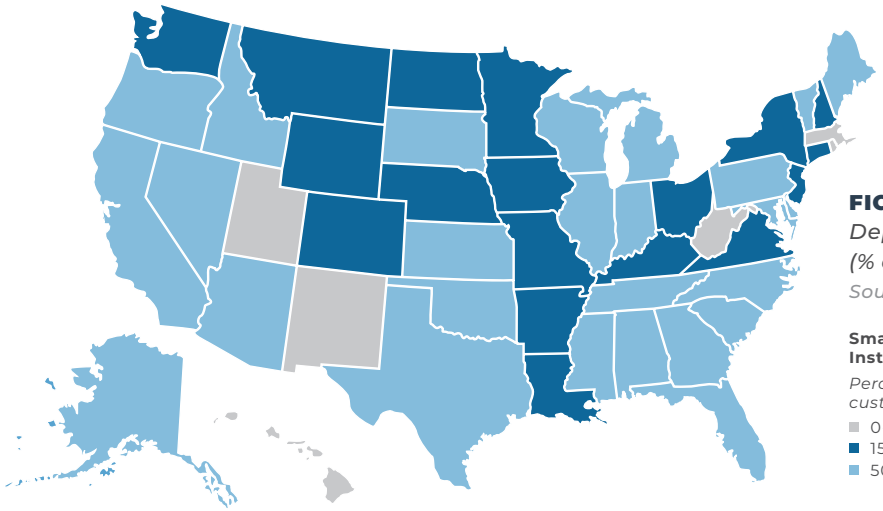


FIGURE 3. *Smart Meter Deployment by State, 2019 (% of Customers)*
Source: IEI, 2021

- Where AMI has been rejected, regulators have cited flaws in utility applications, including vagueness, poor cost-benefit analysis, and cost allocation issues.

6 Ogle, James (Pacific Northwest National Laboratory), *An Introduction to Advanced Metering Infrastructure (AMI)*, March 17, 2022

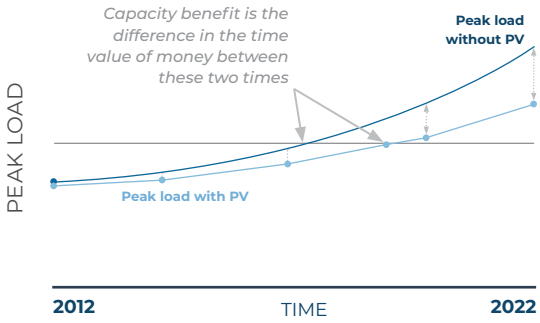
Challenges:

- The costs of AMI are concrete, but the benefits depend on a utility's use of the information collected and can range from grid operational improvements to enabling greater customer choice. The Commission faces a challenge in whether to assume the benefits will accrue as expected and being clear about the intent of the investment.
- A key benefit of AMI meters is the use of customer data to support improved rate design, including time of use and electric vehicle charging rates. The Commission will need to decide whether to develop more sophisticated rate designs which take advantage of AMI capabilities and can lead to cost savings.

DISTRIBUTED LOAD AND RESOURCE FORECASTING

Key Takeaways:[7]

- Distributed energy resources, such as distributed solar may offer a financial value by reducing peak load conditions and associated deferral of transmission and distribution system investments, as illustrated in Figure 4. Accurate estimates of distributed resource adoption and their impact on loading conditions is needed to achieve those benefits.
- Third-party forecasts tend to estimate larger distributed photovoltaic adoption than utility forecasts; this is evidenced over many jurisdictions.
- Independent models are available to support and complement utility forecasts, including a National Renewable Energy Labs Open-Source Model.



SOURCE Adapted from Cohen at al. 2016

FIGURE 4.

Challenges:

- Key Drivers of DER adoption (needing to be factored into effective modeling) include economics (e.g., rate design and incentives), public policy goals (e.g., carbon reduction goals), the dynamics of customer behavior (such as the desire for increased choice in the electric sector) and customer demographics. Each of these elements can be complex to quantify with inherent uncertainty. The Commission faces a challenge in introducing new complexity and requiring additional effort of utilities and Commission staff providing oversight.

7 Prasanna, Ashreeta (National Renewable Energy Laboratory), *Forecasting load on distribution systems with distributed energy resources*, April 7, 2022

HOSTING CAPACITY ANALYSIS

Key Takeaways:[8]

- Hosting capacity analysis (HCA) is a method used to determine the amount of distributed energy resources that can be accommodated on the distribution system under existing grid conditions and operations without adversely impacting operational criteria or requiring significant infrastructure upgrades.
- Determining the potential use case for HCA is an important first step. HCA may be used to ease the review of distributed resources seeking interconnection to the grid, to support utility distribution planning and to inform a resource's locational value.
- HCA is typically performed in phases: First, basic distribution system data is mapped and made publicly available. Second, an initial HCA is conducted over portions of the grid. And finally, the HCA is expanded to include more data points and more complexity in the system.

HOSTING CAPACITY USE CASES

FIGURE 5.

Challenges:

- The costs and benefits associated with HCA depend on the use case and there is no comprehensive study of the benefits to date. The Commission faces a trade off in whether to move forward in requiring HCA before benefits have been clearly demonstrated in other jurisdictions.
- The methods used to perform HCA range in complexity. More complex methods involve testing more potential scenarios and therefore provide greater granularity and sensitivity. More complex methods are also more costly and time-intensive to establish. The Commission faces the tradeoff of whether to require a more or less sophisticated methodology.

8 Stanfield, Sky (IREC). *Hosting Capacity Analyses in New Mexico*. April 21, 2022.

NON-WIRES SOLUTIONS

Key Takeaways:[9]

- Non-Wires Solutions are projects in which utilities use distributed energy resources and other technologies to reinforce the grid, instead of relying on conventional transmission and distribution assets such as upgrades to substations, wires or transformers.
- As shown in Figure 6 distribution costs make up an increasing proportion of customer bills in New Mexico. Non-Wires Solutions may provide a less expensive alternative.

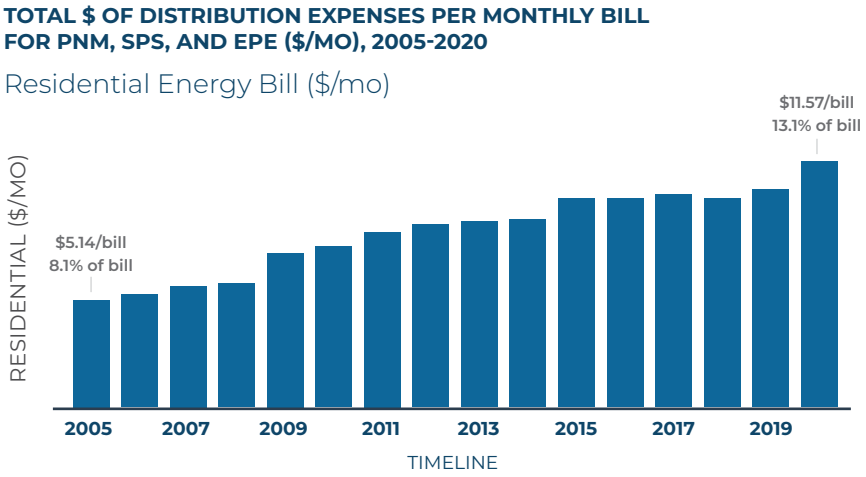


FIGURE 6.

- More than 10 Non-Wires Solution demonstration projects have been implemented in the United States. All have not been successful, but some have and lessons learned from those demonstrations increase the likelihood of success going forward.
- Five steps are recommended to implement Non-Wires Solutions: 1) articulate a vision for Non-Wires Solutions, 2) ensure utility interests in Non-Wires Solutions through incentives, 3) determine the distribution system's needs, 4) identify and evaluate Non-Wires Solution opportunities to meet those needs, and 5) engage stakeholders.

Challenges:

- Non-Wires Solutions have been justified on an avoided costs basis: the distributed energy resource is often incentivized at a level which corresponds with the cost of avoided traditional infrastructure. The Commission faces a challenge in determining what costs may actually be avoided by the Non-Wires Solutions. These determinations can be difficult and uncertain.
- Investor owned utilities profit from deploying capital in distribution infrastructure. They are also less experienced working with distributed energy resources in serving load. These financial and inertial factors make gaining utility interests in Non-Wires Solutions a challenge. The Commission faces a tradeoff in whether to confront this challenge among its priorities.

9 Shwisberg, Lauren (Rocky Mountain Institute). *Non-Wires Solutions: Rationale & Best Practices.* May 5, 2022

TRANSPORTATION ELECTRIFICATION

Key Takeaways:[10]

- Transportation electrification is expected to have a significant and growing impact on the distribution grid. As shown in Figure 7, electric vehicle (EV) sales in New Mexico grew by 164 percent in 2021.

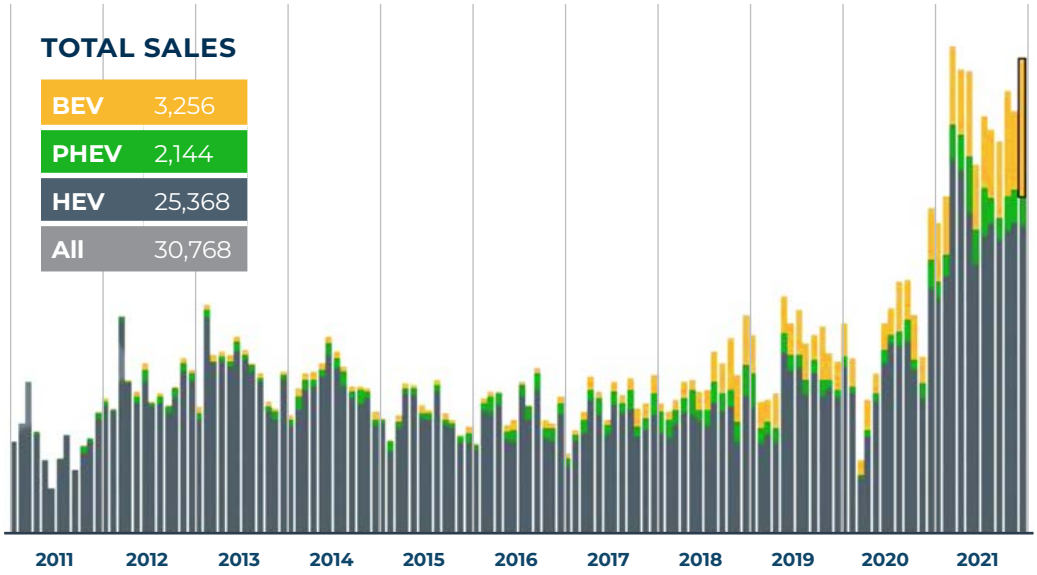


FIGURE 7.

- Transportation electrification will increase electricity use generally, but ensuring charging is completed off-peak converts electrification from a cost driver to a cost saver by increasing throughput on the system (increasing revenue) without increasing the cost of the underlying infrastructure.
- Fortunately, residential and commercial fleet electric owner charging behavior can be managed, in part, through incentives and rate design.
- Evaluating the impacts of transportation electrification on the grid can be accomplished through incorporating EV adoption scenarios into distribution planning.

Challenges:

- Optimizing the distribution system for EVs requires utility planners to go beyond traditional data sets to determine where and how vehicles are charging. Effective distribution grid planning to support transportation electrification should differentiate the needs of both customers and the grid for the mass adoption of residential, commercial, and industrial fleet EVs. Conducting robust outreach to different customer classes will increase utility understanding of the transportation electrification goals being set by municipalities, businesses, and fleets, all of which will impact the utility system. In short, the Commission and utilities have a lot to learn.
- The transportation electrification space will continue to evolve more quickly than utility regulations. The Commission faces a challenge in ensuring the regulatory process stays relevant.

10 Horner, Trina (Kevala). *Transportation Electrification in Distribution System Planning*. May 19, 2022.

COST-BENEFIT EVALUATION METHODS

Key Takeaways:[11]

- Failure to use a consistent cost-effectiveness test for utility investments in different distributed energy resources can distort perceptions of which are most valuable.
- The tests should reflect the purpose of the expenditure being evaluated. If the expenditures are optional, yet desired in order to fulfill policy objectives, then a Total Resource Cost test with long term benefits adequately reflected, may be preferable.
- Alternatively, if the purpose of the expenditure is mandatory, to achieve compliance with a standard or other requirement, then a least cost/best fit (LCBF) test is preferrable, as the focus of a LCBF is to minimize costs.

Challenges:

- A particular challenge is to apply cost-effectiveness testing to Non-Wires Solutions (NWS) in which the value of distributed energy resources are compared to capital investments. Methods for ensuring the comparability of these resources are being developed and tested, but are nascent.
- When using benefit/cost analysis, different parties—utilities, regulators, and stakeholders—will have different perspectives regarding what constitutes a benefit and the magnitude of those benefits. The Commission faces a challenge in whether to leave the determination of benefits to utilities as they perform cost benefit analysis, or to prescribe the methods by which those benefits are determined.
- The Commission can consider using scenarios and sensitivities within cost-benefit analyses. Scenarios can represent the inclusion of various cost tests, each representing costs and benefits from different perspectives. Another consideration for the Commission is whether stakeholders and parties should be able to have access to information for independent analysis.

In sum, the grid modernization workshop series provides valuable insight into the opportunities and challenges facing the Commission in adopting new regulations. What follows are Gridworks' recommendations on how to begin.

11 Shenot, John (Regulatory Assistance Project). *Evaluation Methods for Grid Investments and Distributed Energy Resources.* June 2, 2022.

CONCLUSIONS AND RECOMMENDATIONS

As noted in the background summarized above, the Commission has explicit statutory authority to direct jurisdictional utilities to file grid modernization projects. Over the past 24 months, whether and how to apply this authority has been informed by the EMNRD's Grid Modernization Roadmap and the Gridworks workshop series, efforts which amount to considerable stakeholder engagement. From this foundation, Gridworks concludes the Commission should move forward to require comprehensive grid modernization. As a next step, Gridworks recommends that the Commission issue a Notice of Proposed Rulemaking to accomplish the following:

A. Clearly establish the Commission's regulatory intent through stated **goals and principles** for comprehensive grid modernization;
B. Require regulated utilities to develop and file comprehensive **Grid Modernization Plans**;
C. Specify how the Commission will **evaluate, approve, or reject** utility Grid Modernization Plans and projects;
D. Show how the Commission will coordinate the Commission's **grid modernization policy and decision-making** with related proceedings;
E. Establish expectations for the Commission to **revisit any adopted grid modernization rules** at regular intervals.

Each of these items should be addressed in the Notice of Proposed Rulemaking as follows.

GOALS AND PRINCIPLES

When initiating rules of this magnitude Gridworks recommends that the rule should be preceded by a statement of regulatory intent. This benefits all current and future readers of the rule by expressing the priorities of the Commission, thereby guiding those regulated by the rule and those participating in associated Commission proceedings.

The Commission has already made strides to articulate regulatory intent for grid modernization. Specifically, in Commission Proceeding 22-00058 UT, the Commission states:

> "The Commission finds that the implementation of AMI comports with the Grid Modernization Statute, will benefit PNM's New Mexico retail customers and the public, and will provide a net public benefit." (Order dated 3/24/22)

The Grid Modernization NOPR should extend this conclusion to Grid Modernization more broadly, as suggested in the following statement:

> In 2020, HB 233, codified as NM § Stat 62-8-13, was enacted. This statute directs the Commission, and the jurisdictional electric utilities, to pursue "grid modernization." As set forth in the statute, grid modernization is defined as "improvements to electric distribution or transmission infrastructure through investments in assets, technologies or services that are designed to modernize the electrical system by enhancing electric distribution or transmission grid reliability, resilience, interconnection of distributed energy resources, distribution system efficiency, grid security against cyber and physical threats, customer service or energy efficiency and conservation."[NM § Stat 62-8-13 (F)]

> Through these Grid Modernization Rules, the Commission specifies the requirements and expectations placed upon jurisdictional electric utilities pertinent to modernizing the electric grid. These Rules also establish the procedures by which applications, plans and associated grid modernization-related filings will be adjudicated by the Commission, toward the goal of implementing the above-referenced statute. This goal is pursued with the understanding that grid modernization can yield net benefits to customers and the public.

The intention of a rule is often further articulated through including guiding principles. By stating principles and objectives the Commission more fully expresses its vision for comprehensive grid modernization. Gridworks suggests the following principles:

1. **Invest in the future:** Maintain an electric system that provides reliable, affordable, secure and increasingly-clean electricity through continual investment in technology, systems and processes.
2. **Coordinate Relevant Actions:** Coordinate between and within proceedings related to grid modernization to increase the efficiency and efficacy of the utilities and the Commission.
3. **Be Predictable:** Provide clear expectations for grid modernization applications and how an application will be evaluated.
4. **Provide Flexibility:** Give clear expectations on the outcomes and flexibility on how they are achieved.

The Commission's regulatory intent will provide guidance into the future. The first reflection of that intent should be Grid Modernization Plans, recommended below.

GRID MODERNIZATION PLANS

As noted previously, HB 233 (2020) identifies what constitutes grid modernization, including: 1. advanced metering infrastructure, 2. intelligent grid devices for real time or near real time analysis, 3. automated control systems for distribution circuits and substations, 3. high-speed communication networks/automated control, 4. distribution system hardening, 5. physical security measures at critical distribution substations, 6. cybersecurity measures, 7. improved distribution system planning capabilities, 8. demand response technologies, 9. energy storage and microgrids, 10. EV charging infrastructure/community/industry electrification, and 11. customer information platforms.

Successful implementation of HB 233 requires recognition that these elements do not stand-alone. Instead, these elements constitute pieces of comprehensive grid modernization. The challenge facing utilities and the Commission is assembling those pieces into an effective whole, thereby mitigating the risk of piecemeal investing. A critical first step toward that end is the creation of comprehensive utility Grid Modernization Plans. Gridworks recommends the NOPR require utility filing of Grid Modernization Plans which, at minimum:

- explain how each utility intends to implement HB 233, including consistency with goals and principles introduced above;
- provide the utility's overall plan and timetable for addressing the 11 components of grid modernization outlined in the above statutory definition; and
- explain utility plans for implementing the following critical components of distribution system planning: distributed load forecasting, Hosting Capacity Analysis, and Non-Wires Solutions.

As guidance, Gridworks emphasizes grid modernization will not be accomplished quickly. The best utility grid modernization plans set forth a strategy for modernizing incrementally over time.

Finally, the Commission should evaluate those plans, as detailed below, and formally approve/reject the plans. This step is necessary to achieve the goals and principles recommended above and to enforce the expectation that subsequent spending proposals are consistent with approved utility Grid Modernization Plans.

GRID MODERNIZATION PLAN AND PROJECT EVALUATION

What makes the regulatory decision-making process the most effective for all involved is to articulate the review factors against which the requested decisions will be assessed. The applicant (utility) then knows how to best present its affirmative rationale, and intervening parties know how to frame their testimony for greatest relevance and impact.

In the context of New Mexico grid modernization, the Commission is fortunate that HB 233 provides factors to consider when reviewing grid modernization applications. Gridworks recommends that the seven factors presented below be used as evaluation criteria when reviewing utility Grid Modernization Plans and subsequent application.

> "When considering applications for approval, the commission shall review the reasonableness of a proposed grid modernization project and as part of that review shall consider whether the requested investments, incentives, programs and expenditures are:
>
> (1) reasonably expected to improve the public utility's electrical system efficiency, reliability, resilience and security; maintain reasonable operations, maintenance and ratepayer costs; and meet energy demands through a flexible, diversified and distributed energy portfolio, including energy standards established in Section 62-16-4 NMSA 1978;
>
> (2) designed to support connection of New Mexico's electrical grid into regional energy markets and increase New Mexico's capability to supply regional energy needs through export of clean and renewable electricity;
>
> (3) reasonably expected to increase access to and use of clean and renewable energy, with consideration given for increasing access to low-income users and users in underserved communities;
>
> (4) designed to contribute to the reduction of air pollution, including greenhouse gases;
>
> (5) reasonably expected to support increased product and program offerings by utilities to their customers; allow for private capital investments and skilled jobs in relate services; and provide customer protection, information or education;
>
> (6) transparent, incorporating public reporting requirements to inform project design and commission policy; and
>
> (7) otherwise consistent with the state's grid modernization planning process and priorities."

Gridworks highlights the statute's requirement to "maintain…reasonable…ratepayer costs." The PRC's Grid Modernization NOPR can reduce confusion by specifying how it will assess the reasonableness of proposals. Gridworks reiterates the guidance provided above in the section "Evaluation Methods of Grid Investments and DER:" when an expenditure must occur, as in matters of compliance, a Least Cost/Best Fit methodology is recommended; when the expenditure is intended to achieve net benefits, then the Commission should call for using a Total Resource Cost (TRC) Test. If the TRC test will be used, the Commission should identify how the utilities should account for the full benefits of the resource.

COORDINATING REGULATORY PROCESSES

Gridworks recommends the Commission articulate within the Grid Modernization NOPR how current and future filings are to be sequenced in order to most effectively achieve grid modernization. Specifically, we propose this sequence:

- Initiate a Grid Modernization rulemaking as discussed herein.
- Complete the current and anticipated Advanced Metering Infrastructure implementation proceedings and the implementation of interconnection reforms.
- Suspend the filing of applications for grid modernization projects, pending promulgation of the grid modernization rules discussed in this report (with an exception for grid investments necessary to address emergency situations).
- Upon enactment of the Grid Modernization rules, require each utility to file a Grid Modernization Plan, as discussed above.
- Begin to connect the assumptions made in related proceedings, including but not limited to:
  - Forecasting DER adoption as an input in Integrated Resource Planning
  - Forecasting EV adoption in in Grid Modernization plans
  - Including anticipated rate and programmatic changes (e.g., community solar) in grid modernization plans

REVISITING GRID MODERNIZATION RULES

As noted throughout this report grid modernization is a complex undertaking that requires a staged approach to planning, investment and implementation. Gridworks therefore recommends the Commission set forth a schedule for review of the adopted grid modernization rule, such as every five years, to ensure that the regulatory framework that guides utility investment is subject to a periodic review.