



GRIDWORKS

DRAFT OUTLINE for Discussion
5/16/2022

Modernizing New Mexico's Grid

Executive Summary

1. Background and History

- a. NM Grid Mod Inquiry
- b. HB233
- c. EMNRD stakeholder process and white papers

2. Gridworks Engagement in NM

- i. Our charge
 1. Education/facilitation to support staff development of a NOPR
 2. Support development of utility filing process/procedure
 3. Support development of commission criteria and approval process
- ii. Our approach
 1. Webinar series, dates times and topics, website
 2. Participant list (in appendix)

3. Definition, Components and Purpose of Grid Modernization Elements

- a. Grid modernization definition from HB233
- b. (call out box) Pacific NW Labs slides on adoption rates and costs for comparison
- c. Integrated Distribution Planning (IDP) - Effective IDP planning results in increased transparency, supports utility decision making and investment and in meeting specific public policy objectives.
- d. Advanced Metering Infrastructure - When fully deployed, AMI and advanced communications enable services such as reliability and outage management, voltage and reactive power regulation, DER integration, and demand response. Customer profile information that can be obtained from AMI meters can enable improved rate design, including rate design to support customer engagement and saving options.
- e. Distribution Load Forecasting with Distributed Energy Resources - Ensuring inclusion of existing and projected DER in load forecasts will support achieving public policy goals, guide investment, and provide transparency for regulatory approvals.
- f. Hosting Capacity - *(to be completed)*



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- g. Non-wire Alternatives - *(to be completed)*
- h. Transportation Electrification in DSP - *(to be completed)*

4. Key Findings and Recommendations for Cross Cutting and Individual topics

Cross-cutting topics *(Examples of section content below)*

- a. Efforts to modernize the grid through utility investments can increase customer costs, but not spending money on foundational technology (such as AMI), limits a utility's abilities and precludes securing system benefits for consumers (such as beyond the costs of the meters).
- b. Distributed Energy Resources (DER) adoption is growing rapidly creating the potential for disruptive impacts, as well as system benefits.
- c. Integrated Distribution Planning provides the opportunity for increased transparency to guide investment and cost recovery approvals.
- d. If a utility serves as a balancing authority for co-ops or other entities, the status of their AMI and other advanced grid management capabilities hinders or supports advanced operations and achievement of public policy goals of utilities for which they provide balancing services.
- e. Federal funding may be available to utilities supporting investment in grid modernization technology deployment, such as electric vehicle charging.

Individual topics *(Examples of section content below)*

- a. IDP
 - 1. IDP's are seen as equal in value and importance to Integrated Resource Plans (IRP's). IDP can be conducted before and be fed into IRP's. Both planning processes should use common data, information and other planning components.
 - 2. IDPs should consider customer impacts, both negative and positive (ease to add DERs, potential system degradation and increased bills/rate) and benefits for DER market participants, such as supporting third parties engaging with customers and delivering services.
 - 3. Rule language on IDPs should set forth desired, actual results/outcomes, which can be used on an on-going basis by the PRC to evaluate progress.



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4. A rule should contemplate requiring utilities to consider and include grid modernization projects as part of their IDPs to support investment decisions and cost recovery approvals.
 - b. AMI and Communications
 - i. AMI is the cornerstone of grid modernization efforts. The cost of AMI is concrete but the benefits depend on uses of information provided, ranging from grid operational improvements to enabling greater customer choice. A systems approach to AMI investments can create a full range of benefits.
 - ii. AMI may replace legacy equipment that is not fully depreciated and adoption can require changes to 'back office' operation requiring attention to cost impacts and cost recovery treatment. and need for a multi-year implementation approach.
 - iii. A utility needs to identify the wide range of benefits possible resulting from AMI investments, detail its implementation approach and timeline for AMI deployment, and use of resulting data to improve system operation and planning.
 - iv. PRC will need criteria to evaluate AMI benefits and proposals.
 - c. Load Forecasting *(to be completed)*
 - d. Hosting Capacity *(to be completed)*
 - e. Non-wire Alternatives *(to be completed)*
 - f. Transportation Electrification in DSP *(to be completed)*
 - g. Evaluation methods for grid investments and DER *(to be completed)*
5. **Putting together the Pieces**
 - Interrelationship of grid modernization pieces**
 - a. Insert flow chart (e.g., how AMI affects DSP planning, etc.)
 - Interaction of issues outside of grid modernization rule (Examples of section content)**
 - a. A grid mod NOPR is likely to have multiple potential overlaps with other PRC proceedings and processes, such as Interconnection Standards and the associated Guidebook. The NOPR should be carefully crafted to support and supplement existing rules.
 - b. Collecting customer information through AMI meters necessitates confidentiality rules for data and customer protections, and opt-out provisions. Confidential provisions should be included in the Customer Service Rule, rather than in a grid modernization rule.
 - c. Community solar
 - d. Transportation Electrification Planning



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6. Key Process and Procedure Recommendations

- a. (to be developed through June 30 and July 21 Webinars)

Conclusion

Appendix

Meeting notes and participants links