Welcome!

Stakeholder Engagement Meeting

(Meeting #9)

2023-2043 Integrated Resource Plan, Public Service Company of New Mexico

Thursday, Sept. 28

9:00 AM – 11:00 AM Mountain Daylight Time

Note: this meeting is being recorded and will be available as public information. The link to the recording will be included in the meeting summary.

Materials available at: New Mexico Energy Planning – Gridworks

or

https://gridworks.org/initiatives/new-mexico-energy-planning/

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Purpose and Outcomes of Today's Meeting

Receive an update on modeling results, review Statement of Need (SoN), and discuss Action Plan suggestions.

KEY OUTCOMES

- Comparison of Statement of Need components
- Identification of areas of agreement and disagreement
- Discussion and mapping of candidate Action Plan items

Agenda

9:00 AM – Welcome, Purpose, Outcomes for the Meeting

9:10 AM – Modeling Update and SoN Implications (PNM team presents)

9:40 AM – SoN Discussion and Agreements

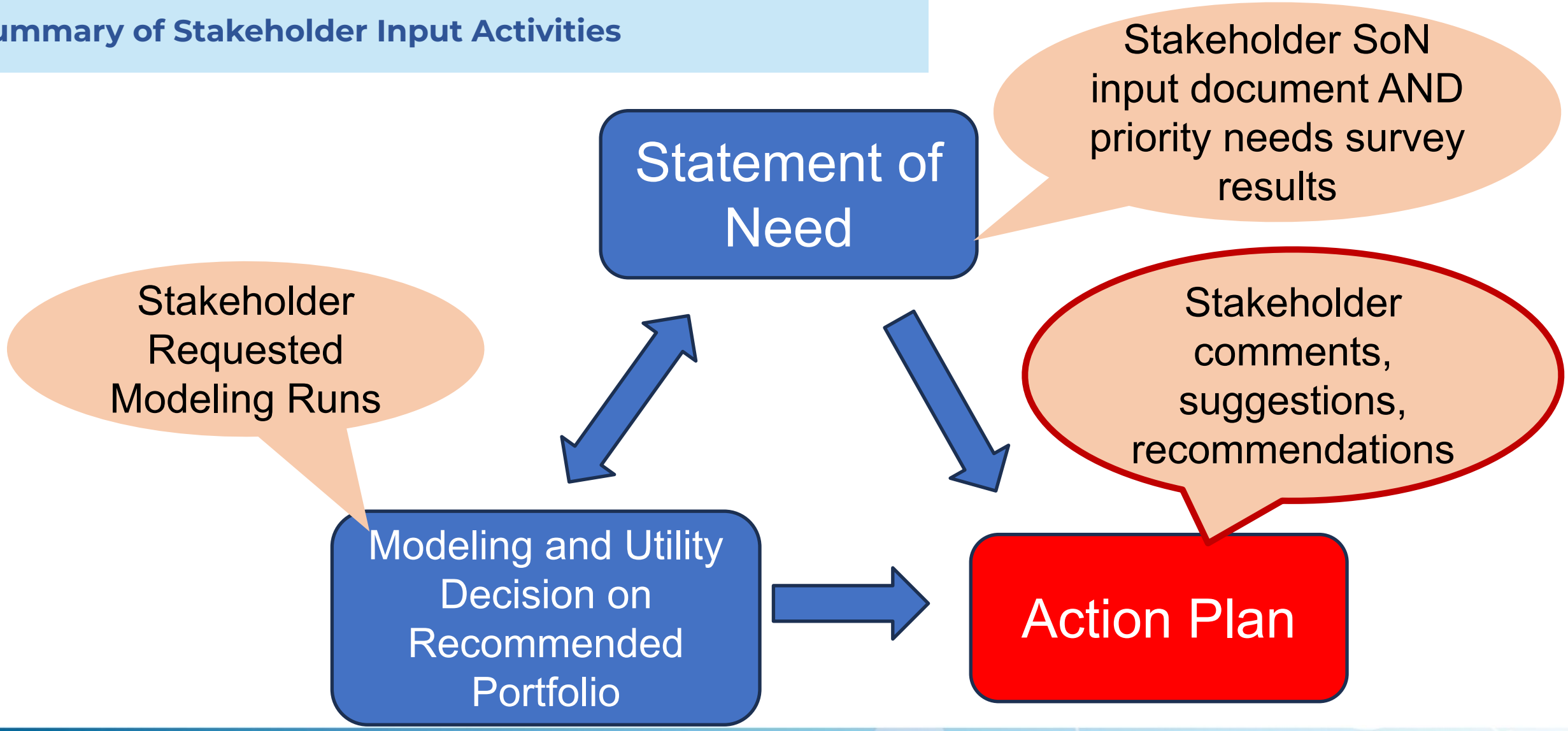
10:10 AM – Break

10:20 AM – Candidate Action Plan Ideas and Mapping

10:50 AM – Summary of Actions and Next Steps, Meeting Feedback

11:00 AM – Adjourn

Summary of Stakeholder Input Activities



Modeling Update and SoN Implications

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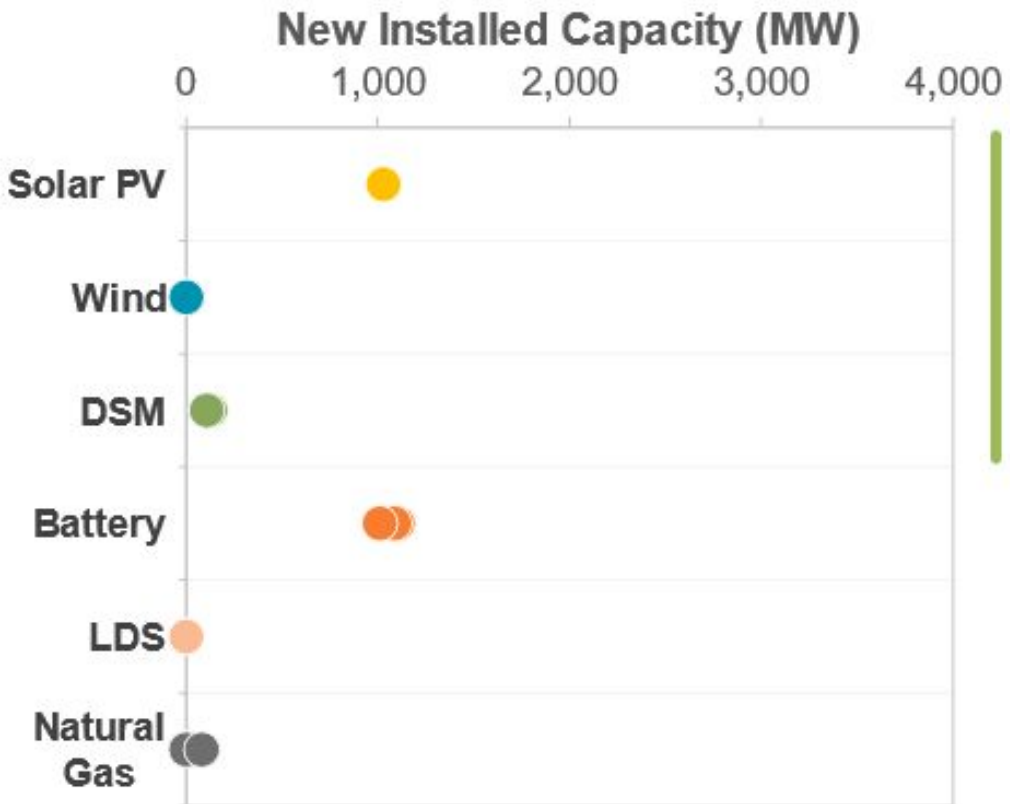
SoN Elements - PNM IRP Placement

PNM SoN and 2023 IRP Mapping, 9/14/23

https://gridworks.org/wp-content/uploads/2023/09/2023-09-06-PNM-SoN-and-2023-IRP-Mapping_SENT-20230914-3.xlsx

Stakeholder SoN Section	Stakeholder SoN Point	According to IRP rule 17.7.3.10, is this a required element of the Statement of Need or Elsewhere in the IRP?	If elsewhere, where will it be address in the PNM IRP?	Note
Section Number		Yes / No	Chapter Number	
2. Vision and Goal	The identification of a set of resources and a sequencing of those resource deployments […]	Elsewhere	1.2	
a. The identification of a set of resources and a sequencing of those resource deployments […]		Elsewhere	1.2	
b. Goals		Elsewhere	1.2	
i. Support Rapid Decarbonization & Electrification		Elsewhere	1.2	
ii. Reliability and Resilience: Utility's Obligation to Serve	1.Minimum Reserve Requirements 2.Reliability Standards 3.Swift recovery from climate or security threats	Statement of Need and Elsewhere	1.2	Reliability is the core component of the SoN. Resiliency is addressed in 1.2 and in the
iii. Public Interest and Equity	1. Responsibilities to Ratepayers and Stakeholders	Elsewhere	1.2 2.1 3.3	Affordability, Considerations for Low-income communities, and workforce impacts are address throughout the IRP. Climate justice for individuals and
iii. Public Interest and Equity	2. Costs associated with the development and deployment of all candidate resources	Elsewhere	1.2	Cost of energy is the primary planning objective of the IRP, while lifecycle costs and specific

POTENTIAL RANGE OF CUMULATIVE NEW CAPACITY BY 2028 (CTP CASE)



Most resource needs in the near term have been satisfied with solar and storage procured through recent all-source RFP solicitations; range of uncertainty is relatively narrow.

Low-cost carbon-free energy resources

with the capability to produce clean energy to meet a majority of our customers' needs throughout the year.

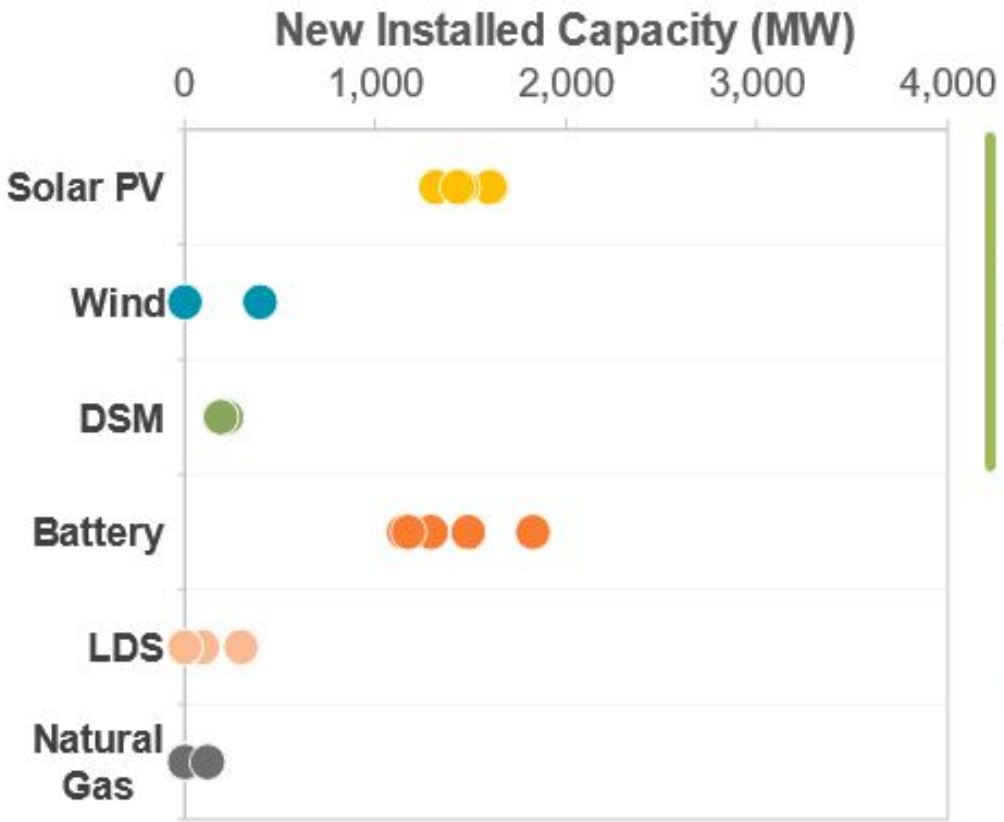
Dynamic balancing resources

that enable our operators the tools to balance the supply and demand for electricity on an instantaneous basis, recognizing that the generation profiles of many of our carbon-free resources will not coincide naturally with electricity demand; and

Firm resources

with the capability to operate at or near full capacity for extended periods of time that will allow our operators to maintain reliability even under the most constrained conditions in the system, which may include both periods of high demand as well as periods of low renewable output

POTENTIAL RANGE OF CUMULATIVE NEW CAPACITY BY 2032 (CTP CASE)



In the medium term, value of resource diversity becomes apparent, as resource selections include capacity from all technology segments

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Firm resources

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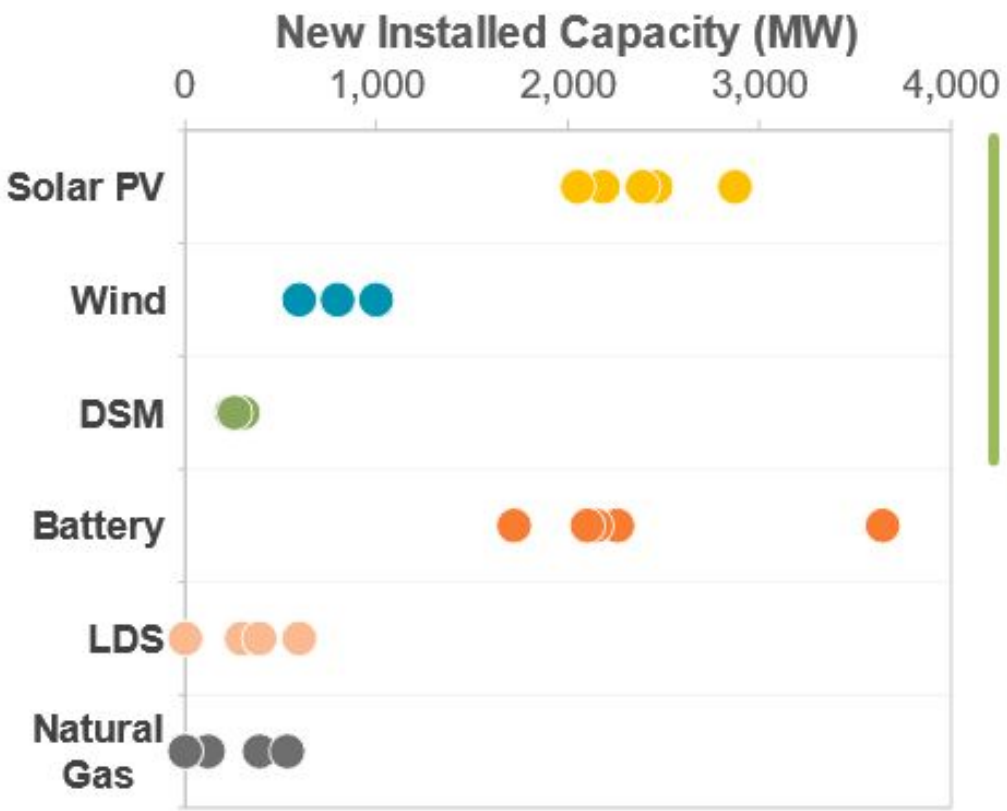
POTENTIAL RANGE OF CUMULATIVE NEW CAPACITY BY 2040 (CTP CASE)



In the long term, significant capacity additions are needed to meet carbon-free goals and ensure reliability; scenarios continue to show a wide range of outcomes

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Dynamic balancing resources

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Firm resources

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Do Stakeholders Agree with the PNM Resource Need Analysis?

SoN Agreement Process

Are the projected quantities and types of new capacity needs appropriate for the timeframes (thru 2028, 2028-2032, 2033-2040)

SEE PNM SLIDES WITH DETAILS

- Do you believe the projected capacity additions are reasonable?
- Do you believe the projected types of resources are reasonable?

- If you have concerns or do not agree with the capacities and types of resources needed, we must hear from you through one of three options:
  - today, verbally or by chat;
  - by 12 NOON on Oct. 5 via email to info@gridworks.org; or
  - in person at a WebEx meeting from 9:00 -10:00 AM on Oct. 6.

Next Steps in Consideration of Stakeholder Input to the SoN

Gridworks - Summary of key comments from stakeholders.

PNM - Please share your next steps in consideration of the stakeholder input to the SoN.

Definition of the Action Plan

Per the IRP Rule, 17.7.3.11 utility's action plan shall:

1) detail the specific actions the utility shall take to implement the IRP spanning a three-year period following the filing of the utility's IRP;
2) detail the specific actions the utility shall take to develop any resource solicitations or contracting activities to fulfill the statement of need as accepted by the commission; and
3) include a status report of the specific actions contained in the previous action plan

The utility creates the action plan, stakeholder input is to be considered.

Process for Discussion of Action Plan Items

- PNM presentation regarding action plan suggestions
- Review of stakeholder input to action plan
- Discussion of items common to stakeholders and PNM
- Process and schedule for submitting stakeholder comments

ACTION PLAN

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Stakeholder Action Plan Suggestions Offered to Date

Actions need to be measurable and able to be checked for compliance. Language is welcome in this regard.

Ideas offered by stakeholders during the June 29 Meeting:

- Changing fossil fuel plants to long duration energy storage as environmental justice for impacted communities
- Collect distribution feeder level reliability metrics to understand reliability equity
- Initiate public information effort regarding electricity sector changes and IRP process

Items introduced during stakeholder modeling run request process:

- Explore availability of landfill gas as supplementary/replacement fuel
- Include extreme weather considerations during next IRP cycle
- Explore benefits from participation in organized regional market, and from participation under extreme weather scenarios
- Incorporate consideration of correlated gas outages in next IRP cycle

Stakeholder Action Plan Suggestions Offered to Date (continued)

Ideas submitted since Aug. 31:

- By 2026, PNM shall have a default time of day rate for all customer classes. PNM shall assess the success of the time of day pilot and develop a plan to enroll all customers on a time-varying rate.
- Achieve demand response impacts of 5% of peak demand by 2026. PNM currently achieves demand response reduction of approximately 3% of peak demand. To reach this goal, PNM should solicit new DR programs with flexible requirements. This new solicitation should go out by mid-2024.
- Develop a list of advanced geothermal developers and ensure they are contacted for future RFI's. Develop a relationship with the advanced geothermal development community in the state
- Work to solicit geothermal bids and bids for a variety of thermal storage technologies.

Stakeholder Action Plan Suggestions Offered to Date (continued)

- Pumped Storage Hydro, CAES and long duration batteries are not currently realistic options. The following technologies are those that seem to be realistically available to PNM: Wind, PV, Li-ion (up to 4 hours economical); CT's; 8 hour pumped hydro. Converge on desired resource characteristics through the IRP process (rather than an IRP that includes potentially non-viable and speculative technologies), and then put out another RFI for narrowing to alternatives that are viable for inclusion in a future RFP and/or bilateral procurement where warranted.
- Hold a 2026 RFP for resources that will come online 2029 and beyond.
- Actively engage with evaluation activity for the most promising, maturing carbon free technologies like thermal or iron-oxide storage
- Share transmission assumptions with stakeholders and allow developers to give feedback and least-cost site projects.
- Prioritize projects and resources that can locate in federally designated energy communities (supported by the Inflation Reduction Act) and deliver low-cost clean energy to while providing economic development in communities that are transitioning from a carbon-based economy.

Stakeholder Action Plan Suggestions Offered to Date (continued)

Ideas regarding the next IRP:

- Upgrade models and software so PNM can model 8760 hours during the capacity expansion phase. Due to software limitations, storage is not modeled holistically in PNM's IRP process
- Refine modeling parameters including forced outage rates and chemical degradation over time for BESS resources
- Include future PPA procurement in the modeling process in addition to the assumption that PNM will own new resources
- Improve financial modeling so it accurately represents the cost difference between a 60-year lifetime resource and a 20-year lifetime resource
- Incorporate consideration of correlated gas outages
- Include extreme weather considerations
- Use a better transmission model. The current "ball and spoke" model is insufficient to the need for planning in the state
- Establish a stakeholder modeling workshop (or series of workshops) that will kickoff no later than 9/15/2024 to inform modeling assumptions and protocols that will be utilized in the 2026 IRP.
- Transition Resource Adequacy modeling to incorporate WRAP forward showing planning requirements and resource attributes no later than PNM's 2026 IRP.

Proposed Framework for Action Plan Items

Final Steps in the Facilitated Stakeholder Process

If you have concerns or do not agree with the capacities and types of resources needed, or any of the proposed action plan items, we must hear from you through one of three options:

- today, by chat;
- by 12 NOON on Oct. 5 via email to info@gridworks.org; or
- in person at a WebEx meeting from 9:00 -10:00 AM on Oct. 6.

- **Oct. 6, 9 - 10:00 AM - optional meeting to submit concerns and comments on SoN and Action Plan**
- **Oct. 19, 9 – 10:30 AM – Update on SoN and Action Plan by PNM**
- Dec. 15 - IRP is filed by PNM
- Dec. 19, 9 - 10:30 AM - Final stakeholder meeting to collect input regarding how you experienced the process
- Gridworks' report to the NM PRC is due Jan. 31, 2024. It will include results of both NM IRP Facilitated Stakeholder Processes (PNM and SPS).

Please Access and Complete the Survey Now

Feedback allows us to:

1. Measure effectiveness of this new process for the NM PRC
2. Improve Gridworks' facilitation effectiveness
3. Hear your concerns and suggestions

By either…

Scanning the QR Code to the right

OR

Visiting this link:
bit.ly/PNM-IRP-Feedback

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Thank you for attending.

Questions? Please contact Margie Tatro at:
mtatro@gridworks.org
505-205-0838

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Materials for this and future meetings available at: New Mexico Energy Planning – Gridworks
or
https://gridworks.org/initiatives/new-mexico-energy-planning/