



Aug. 31, 2023, Stakeholder Meeting (#8) for PNM Integrated Resource Plan

Meeting Summary

Approximately 30 stakeholders representing 22 different organizations attended the Aug 31, 2023, meeting via WEBEX.

A recording of the meeting is available at:

<https://pnmresources.webex.com/pnmresources/ldr.php?RCID=ce897ca1790007f769fe120429e00289>

PW: mXbauP9a

The recording of the supplemental Q&A session, held from 1-2 PM this same day, is available at:

<https://pnmresources.webex.com/pnmresources/ldr.php?RCID=be18888a0a15703e33770f891265d4f6>

PW: PmSt3Mg2

Meeting materials are posted at [New Mexico Energy Planning – Gridworks](#) or

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

- [Slide Deck – Gridworks IRP Stakeholder Meeting #8 – 8/31/23](#)
- [Slide Deck – PNM 2023-2042 IRP: Modeling Results Update – 8/31/23](#)
- [PNM SoN final draft – 8/28/23](#)

Meeting Purpose, Outcomes, and Announcements

The purpose of the meeting was to begin drafting stakeholder input to the action plan. Key meeting outcomes were:

- Review and seek input to the Statement of Need and priority needs
- Create stakeholder understanding of modeling results
- Begin collection of suggestions for Action Plan

Statement of Need Update

Michael Barrio reviewed the stakeholder input to the Statement of Need (SoN). The document (“[PNM IRP SoN_final_draft_8.28.23.docx \(gridworks.org\)](#)”) is posted on the Gridworks.org website. Appreciation was expressed for the work by the working group members: Athena Christodoulou, Barbara Chatterjee, Daren Zigich, Michael Kenney, Cydney Beadles, Jim DesJardins, and Chadette Pfaff. Stakeholders suggested that geothermal energy be added to the list of considered resources. (Note that a workshop on ADVANCING GEOTHERMAL DEVELOPMENT IN NEW MEXICO is being held at New Mexico Tech on Sept. 21, 2023. For more information, contact shari.kelley@nmt.edu or tasolomon6@gmail.com.) The SoN also includes a list of Items for Future Discussion.

The group was reminded of the results of the “STAKEHOLDER PRIORITY NEEDS” survey deployed during the last meeting. PNM provided a refresher on the SoN and Action Plan requirements in the IRP rule and shared a template/outline of their SoN.



Modeling Update

The PNM team provided an update on phase 3 of the modeling. Thirty-four different portfolios were modeled and ranked based on cost, technology risk, and carbon emissions. All portfolios satisfied initial reliability requirements. The group discussed the selection of portfolios that advanced to phase 3 of modeling. Given the interest in “Green Hydrogen”, a stakeholder suggested that a portfolio inclusive of this technology be considered as part of phase 3. Five scenarios (each with a set of resource/technology options) underwent SERVM-enabled reliability checks and received resource adjustments to optimize reliability metrics of LOLE and EUE.

Key observations from the modeling are shown below:

Near-final results

PNM'S OBSERVATIONS & NEXT STEPS

High-level observations:

- Lowest-cost portfolios include dispatchable technologies and long-duration storage
- Technology combinations provide lower-cost alternatives to single-technology scenarios – generally, the more resource options available to the model, the lower the cost of the resulting portfolio

Technology observations:

- Wind is included in all portfolios; renewable generation is required to meet energy, RPS, and CO2 requirements
- Portfolios often include storage with at least 24 hours of duration, and >50% efficiency – often combining 24-hour 67% RTE storage with 70-hr 85% RTE
- Linear generators are chosen over CTs when the model is given the option to add both
- When given the choice, model adds a combination of short duration storage, long duration storage, and dispatchable generation – resource diversity will be important for maintaining a reliable carbon-free system
- Cost declines are an important consideration for emerging technologies

Next Steps

- Incorporate reliability adjustments into portfolios based on SERVM results
- Examine robustness of initial observations against other key sensitivities, including implications of technology cost uncertainty upon results that rely heavily on emerging technologies
- Conduct resiliency study on most promising portfolio options
- Compare quantitative and qualitative metrics for Phase 3 portfolios to inform best path forward for Most Cost-Effective Portfolio

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The PNM modeling team will be completing several modeling tasks to inform the best path forward for the most cost-effective portfolio.

Note: A supplemental Q&A session regarding modeling results was held from 1-2 PM this same day to answer technical questions on the modeling.



Action Plan Discussion

Action plan suggestions offered throughout the 2023 IRP stakeholder meetings are shown below:

- 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 education effort regarding electricity sector changes and IRP 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

PNM shared the list of actions that were included in the prior (2020) IRP.

Stakeholders are invited to submit action plan suggestions **by noon on Sept. 13**, per the following process:

- Submit suggestions via a form available at: <https://forms.gle/hvJUPZGCrpjXn8vs6> Note that name, organization and email are required. Multiple submissions are allowed.
- Those who are unable to access google docs, send an email with “PNM ACTION PLAN SUGGESTION” in the email subject to info@gridworks.org by noon on Sept 13. Please include your suggestions, your name, and your organization.
- Discussion of ideas will be the foundation for the Sept. 14 meeting.

Closing and Request for Feedback

Gridworks thanked all stakeholders for their engagement, insights, and suggestions as we move forward together in this new process. Gridworks appreciates those who completed the survey during the meeting. Others are encouraged to complete the survey by visiting this link:

bit.ly/PNM-IRP-Feedback, or scanning the QR code shown here



NEXT MEETING: Thursday, Sept 14

TIME: 9:00 – 10:30 AM

WHERE: WEBEX

REGISTER: [Schedule & Registration \(pnmforwardtogether.com\)](https://pnmforwardtogether.com), click on the September 14 “REGISTER” box in the meeting schedule table.