

20-Year Transmission Outlook Stakeholder Questions and Answers



PNM would like to thank all stakeholders who submitted questions.

Q: We understand the lines that PNM is proposing are not under development (but more in the conceptual phase), how likely will those lines go in development and when?

A: These projects are at the conceptual level and require extensive planning, stakeholder collaboration, and the development of a robust business case to proceed further. The 20-Year Transmission Outlook has identified transmission concepts that could support New Mexico's transition to renewable and zero-carbon resources or enhance transfer capacity to neighboring transmission systems. It is expected that only a subset of the conceptual projects identified in the outlook will ultimately move forward to development.

Q: Is there a ranking of probability of success for those lines, or are they all equally unsure?

A: PNM has not established a ranking to determine the likelihood of success of any of the transmission concepts. Further analysis, and stakeholder discussions are necessary to evaluate the feasibility, level of interest, and tradeoffs associated with each concept. These steps will help identify which projects are most likely to advance beyond the conceptual phase.

Q: What are the main roadblocks expected on the path of successfully develop and construct all those lines?

A: The most significant challenges in the development and construction of transmission lines typically involve siting and permitting processes. This often requires extensive time and effort due to the complexities of environmental impact assessments, land acquisition negotiations, and obtaining approvals from federal, state, and local authorities.

Q: Would you recommend generators to start developing around the areas crossed by the new transmission lines, rather than in proximity of existing lines?

A: These conceptual transmission projects serve as a framework to support the transition to carbon-free energy. PNM has a business practice to allow generators to request interconnection service at existing points of interconnection or by evaluating conceptual network upgrades as an alternative point of interconnection.

Please refer to PNM's business practice:

https://www.oasis.oati.com/woa/docs/PNM/PNMdocs/BP_POI_on_for_generator_interconnections_2-21-25.pdf.

Q: Is Sunzia considered a merchant line like Southline?

A: Yes, SunZia is considered a merchant line, similar to Southline. You can find more details in the FERC document under docket number ER23-2146-001.

Q: We understand that Sunzia is a DC line, and it's the only DC line shown in the study, why would that line be included in the study? We understood DC lines wouldn't be included because they serve export purposes, not serving local load. Is there a scenario in which Sunzia would serve New Mexico load?

A: The SunZia project primarily facilitates the export of New Mexico's renewable resources, aligning with the objectives outlined in the 20-Year Transmission Outlook. PNM is exploring the possibility of an AC interconnection to the SunZia AC collector facilities. This will provide additional transfer capacity potentially enabling greater integration and distribution of renewable resources to serve local load and enhance the state's energy infrastructure.

Q: How merchant lines like Riosol, Southline (and Sunzia) interact with PNM and are included in PNM planning process? Are they treated exactly like PNM proposed lines? Is the expectation that those lines will then be operated by PNM?

A: Merchant lines are included in the PNM Planning process depending on their interconnection request with PNM. This can include wires-to-wires requests, transmission service requests, large generator interconnection procedures requests, and the regional transmission planning process outlined under FERC Order 1000. PNM collaborates with merchant line project owners who seek interconnection with the PNM transmission system to explore the project's potential role in providing transmission capacity in New Mexico. For the 20-Year Transmission Outlook, PNM included planned merchant projects as potential transmission options and to assess their impact on the New Mexico transmission system. It's important to note that merchant transmission lines are treated differently from PNM-proposed lines and would not be operated by PNM. These lines remain under the ownership and operational control of the merchant entity.

Q: If a generator wanted to interconnect to a merchant line, like Southline, how should we get involve (if so) with PNM and when (we understand no interconnection process would be required with PNM)?

A: If a generator wishes to interconnect with a merchant project, the process should be coordinated directly with the Transmission Owner of the merchant project. The merchant project's Transmission Owner would then engage PNM as necessary.

Q: Given the long-term vision of Combustion Turbines fueled by clean fuel included in PNM's plan, how would you recommend a green hydrogen producer to engage, and when, with PNM?

A: PNM acquires resources through formal Requests for Proposals (RFPs). We recommend hydrogen producers to collaborate with generation developers to ensure their proposals integrate hydrogen as a viable clean fuel option. An example is the RFP PNM issued on December 30, 2024, with bid submissions due by May 15, 2025. Active participation in such processes can help establish green hydrogen as a key component in future combustion turbine projects.

Q: Is there a way for a generator like us to monitor/keep track of load requests and future demand to adjust our developments (location/size/technology)? We want to address as best we can the future needs and be a functional part of the decarbonization solution.

A: Yes, you can monitor and keep track of PNM's expected needs by reviewing regulatory filings as noted below.

<https://www.txnmenergy.com/investors/rates-and-filings/pnm-nmprc-filings.aspx>.

Q: Could you help me locate PNM's two most recent Local Area Transmission Plans? I searched the OASIS site and found slides about the 20-year Transmission Plan but not the latest reports. Where could I find the 2023 and 2024 10-Year Plans?

A: You can find summaries of PNM's 10-Year Transmission Plans for 2023 and 2024 on PNM's OASIS (<https://www.oasis.oati.com/PNM/>). These are shown in the PNM Open Public Meeting Folder under Meeting Notices and Meeting Materials. Additionally, generation interconnection studies and transmission service studies are available in the Generation Interconnection-Transmission Delivery folder on the same site.

Q: We request that PNM consider how this study might offer a head start on meeting the new regional planning requirements contained in the recent FERC Order 1920. We understand that some elements of the study PNM have proposed already take steps in this direction, such as the use of trends in active generation interconnection requests to

represent quantities and locations of potential growth in renewable energy development. We request that PNM also consider how this study might take steps to inform the evaluation of the seven categories of benefits that Order 1920 will require?

A: The 20-Year Transmission Outlook is designed as an initial framework for long range transmission plan within New Mexico that could inform broader regional study efforts. PNM expects to participate in regional planning efforts under FERC Order 1920 efforts to explore opportunities that extend beyond the New Mexico transmission system. This collaborative approach will ensure alignment with regional planning requirements while advancing decarbonization and grid reliability objectives.

Q: We request that PNM consider how two of the US Department of Energy's proposed National Interest Electric Transmission Corridors (NIETCs)—the Mountain-Plains-Southwest and the Plains-Southwest NIETCs—might offer improved opportunities for increasing transmission connectivity with PNM's neighbors to the north and east.

A: The 20-Year Transmission Outlooks primary focus was on developing long-range AC transmission plans within New Mexico. However, we will carefully consider these corridors as part of future transmission planning efforts.

Q: On Slide 5 of April 24, 2024 presentation, PNM indicated that it only intends to examine Net Peak and Maximum Renewable Output cases. We strongly disagree with this limited scope and requests that PNM also include a Gross Peak case.

A: While the 20 Year Transmission Outlook primarily focuses on Net Peak and Maximum Renewable Output cases, PNM acknowledges the importance of considering Gross Peak conditions. It's worth noting that PNM continues to include Gross Peak assessments as part of its normal transmission planning processes.

On Slides 14 through 18 of PNM's April 24, 2024 presentation, it divided its system into four zones and presented several transmission potential expansions for each zone. PNM noted in its presentation that it is looking for at least one transmission expansion option per zone. We believe that PNM needs to study all of the offered transmission expansion options, not just one per zone. This analysis is necessary in order to identify and compare the potential costs and benefits of each of the transmission expansion options. If, however, there is evidence that a particular option is infeasible or duplicative of a lower cost alternative, that option need not be studied.

A: While the study did not limit its scope to one transmission expansion option per zone, PNM acknowledges that some options were deferred due to time constraints during the initial stage. The 20-Year Transmission Outlook is meant to serve as a foundational step in

developing a comprehensive long-range transmission plan, and future iterations will likely involve a broader evaluation of the options offered.

Q: The scope of PNM's 20-Year Transmission Plan as presented on April 24, 2024 appears to be much more limited than what PNM stated in its 2023 Integrated Resource Plan (IRP). In its 2023 IRP, PNM indicated that it had scoped and began a 20-year transmission planning study to look at potential transmission solutions to enable increased renewable capability and ensure long-term reliability for the decarbonized system.

A: The 20-Year Transmission Outlook identified a group of transmission projects that aimed at reasonably addressing PNM's transmission needs for reliability and renewable generation integration. These efforts are directly aligned with the goals stated in PNM's 2023 IRP.

Q: We do not object to the limited scope of analysis, as presented by PNM on April 24, 2024, as a starting point to creating a 20-Year Transmission Plan. However, we encourage PNM to conduct a more robust analysis in 2025 and 2026. Furthermore, we strongly urge PNM to follow through with its 2023 IRP commitments to (1) factor the results of the 20-Year Study into its 2026 IRP effort for a more complete system integrated plan in its 2026 IRP filing and (2) to continue to bring a nodal version of EnCompass into its IRP process for its 2026 IRP to help enhance PNM's identification of transmission impacts that can influence the resource plan.

A: PNM will factor the results of the 20-Year Transmission Outlook into the IRP. Additionally, PNM remains committed to the ongoing development of nodal modeling through EnCompass to enhance the integration of transmission planning into the IRP process. This effort will support a deeper understanding of transmission impacts and help refine resource planning for the 2026 IRP.

Q: Alignment with FERC Order: The case for longer time horizons when transmission planning has strengthened with the recently issued FERC Order No. 1920 ("Order 1920"), where FERC found existing regional transmission planning insufficient. Order 1920 requires Transmission Providers to use a 20-year time horizon when evaluating the benefits of potential Long-Term Regional Transmission Facilities. Additionally, Western Electricity Coordinating Council ("WECC") started using a 20-year time frame in 2023 when assessing potential risks to the grid.

A: PNM acknowledges the importance of aligning with FERC Order No. 1920 and recognizes that longer time horizons in transmission planning are critical to addressing the challenges identified in the Order. As stipulated, the requirement to evaluate the benefits of potential

Long-Term Regional Transmission Facilities over a 20-year horizon represents a significant advancement in ensuring the sufficiency of regional planning efforts.

Q: Modeling Extra Weather Events: We would also support PNM's consideration of extreme weather events when transmission planning. North American Electric Reliability.

A: The 20-Year Transmission Outlook is the initial step in creating a robust long range transmission plan. PNM will comply with NERC standard TPL-008-1 Transmission System Planning Performance Requirements for Extreme Temperature Events. PNM plans to incorporate extreme weather into its transmission planning efforts, as required by FERC Order 1920.

Q: Did PNM consider the potential value or impact of recently approved merchant transmission lines when drawing zone boundaries?

A: Yes. Merchant transmission lines were considered during the study and in many cases support transfers among zones. However, the zones themselves played a fairly limited role in guiding the study. PNM welcomes feedback from stakeholders to enhance how the zones are defined and how they can better align with broader study objectives. This collaborative approach can help refine future analyses and improve the overall planning process

Q: PNM indicates that building the MCEP requires expanding the transmission system, and the IRP lists seven new conceptual transmission projects in Table 49 (p.152). Were any of these seven projects included as in-service in the base case for the 20-year Transmission Planning Outlook? Which ones?

A: Yes, the Tome-Person 115 kV upgrade (referred to as Belen-Person in the IRP) was included as in-service in the base case for the 20 Year Transmission Planning Outlook. This upgrade was recently completed to facilitate the integration of a new hybrid solar and battery facility south of Los Lunas. The project has been included in the 20-year plan as a base case assumption.

Q: Can you explain PNM's process for moving transmission projects from "conceptual" to "planned"?

A: PNM transitions a transmission project from "conceptual" to "planned" when a clear business need is identified. This need could involve enhancing reliability, supporting renewable energy integration, or meeting the requirements of PNM customers and/or other transmission customers. Once the necessity is established, the project undergoes further analysis, stakeholder engagement, and the development of a supporting business case.

These steps help ensure that the project is feasible and aligns with the broader goals of system reliability and decarbonization.

Q: Did the 20-Year Transmission Study move any transmission projects from conceptual to planned? If so, which projects and what are their expected in-service dates?

A: Yes, the 20 Year Transmission Outlook has initiated the process of defining a business case for a new transmission project to support PNM retail customers. PNM will provide more details when the project business case is completed pursuant to FERC standards of conduct.

Q: I saw on one of the slides that "Additional role for advanced conductor is possible but was outside the scope of this study." How and when will PNM evaluate the role of reconductoring and/or line rebuilds as a solution alongside new lines and greenfield development? I assume that reconductoring could substantially speed development timelines and address some near-term needs to deliver IRP resources and ensure reliability while upgrades are made to enable the future retirement of load-side gas resources. As I'm sure you're aware, the Connected West transmission gap analysis found that the Western grid could build 85% of needed transmission capacity within existing right-of-ways.

A: PNM acknowledges the potential role of advanced conductors as part of the transmission system's future and is actively evaluating these options within its large generator interconnection studies (FERC emphasized in Order 2023 the importance of considering advanced conductors during transmission planning and interconnection studies) and other planning efforts. Advanced conductors could indeed help address near-term transmission needs by speeding up development timelines and enhancing system capacity, particularly within existing right-of-ways. Employing advanced conductors requires consideration of certain factors such as but not limited to the next most limiting elements on the system, right-of-way width, line structure condition, and planned outage durations.

Q: Out of curiosity, what performance parameters/criteria are being used for your acceptance thresholds within the various models being analyzed at the conceptual level? Are you using an external industry standard or internal PNM performance criteria? Can you please point me to the standard (if available) just as a reference to be used for similar modeling on a smaller scale?

A: PNM utilizes industry standard performance criteria documented in WECC TPL-001-WECC-CRT-4 guidelines. You can access these standards through PNM's **OASIS site**, where they are made publicly available. <http://www.oasis.oati.com/PNM/>.

Q: Could you help me understand why the following table, for Sunzia says "No" for the column reflecting whether it "enables IRP wind delivery", but then in the final column says "potential wind...access"?

A: The discrepancy in the table you referenced likely reflects the current state versus potential future developments. The "No" under "enables IRP wind delivery" suggests that, as of now, SunZia's existing configuration does not directly support the delivery of IRP-designated wind resources. However, the mention of "potential wind...access" in the final column acknowledges that SunZia could have a future role in enabling wind delivery, particularly if PNM proceeds with the exploration of an AC interconnection to the SunZia AC collector facilities. This potential AC interconnection could enhance transfer capacity within New Mexico, making it possible for SunZia to support renewable energy integration and potentially enable IRP wind delivery as part of PNM's broader transmission planning efforts.