Follow Up from Workshop #4
3/11/26

1. Check with consultants regarding hydrogen cost assumptions. Does it account for federal changes to hydrogen funding?

Response: Not applicable. Since the timing of the conversion to burn hydrogen occurs towards the end of the planning period, PNM already assumed there would be no federal funding incentives or production tax credits available to produce hydrogen gas.

2. Large load treatment in SERVM, subject to weather risk assumptions?

Response: In SERVM, the different load groups (retail, existing datacenter, new economic development) are treated differently when performing resource adequacy analysis. Retail loads have the greatest weather variability whereas existing datacenter and new economic development loads have very limited weather variability.

3. Notify Gridworks when base case results are loaded in Venue so that stakeholders can be informed

Response: PNM will notify Gridworks when the base case results are loaded in Venue.

4. Clarify the Siemens gas price volatility study vis-à-vis the commodity costs in the shared files

Response: The natural gas price volatility study has not been completed and is still in progress. When it has been completed it will be uploaded to the Venue site.

5. Elaborate on the criteria PNM will use to evaluate portfolios: most cost-effective, risk, and reliability tradeoffs

Response: The core quantitative modeling framework for comparing resource portfolios is based on the 20-year Net Present Value (NPV) of revenue requirements, which serves as the primary metric for cost-effectiveness. All portfolios must also meet the minimum reliability criteria of 0.1 LOLE. While the baseline assumes full alignment with state and federal regulations, PNM is also performing sensitivity modeling on specific scenarios that may deviate from these requirements to better understand the cost and reliability implications of various regulatory pathways.

Beyond the primary modeling constraints, portfolios are subject to a qualitative review to account for risks and opportunities that are not captured in the modeling. Examples of qualitative considerations include, but are not limited to, the technological maturity of

proposed resources, as well as geographical challenges such as limited injection capacity, the need for long-lead time transmission expansions or volatility related risks.

6. Future model iterations combining scenarios to explore synergies

Response: PNM is willing to explore combining scenarios to identify potential synergies, provided that the IRP timeline permits such additional iterations. This analysis would benefit significantly from a strong, well-defined set of core stakeholder scenarios.

Follow Up from Email (IRP@pnm.com)
3/12/26

1. Looking for the operational parameters for different resources (ramp rates, min. up and down times, etc.). I looked in the generic resource spreadsheets in Venue and did not find these parameters. Please point me to them. If they are not in venue, please add these parameters for the resources you are modeling so we can understand your assumptions for all resource types.

   Response For detailed modeling assumptions for each specific resources not included in the publicly available data on Venue, please contact PNM to request access to the confidential data for PNM's modeling database in Microsoft Excel format which will be provided once the information is available.

2. Does PNM have any technical problem with a stakeholder scenario which uses a year-by-year "busbar" which decreases costs more quickly for 4-hour and 8-hour BESS? To be specific, the referenced scenario could use the NREL Low scenario. It uses a 7% annual cost decrease explicitly for 4-hour BESS and implicitly for 8-hour BESS. https://docs.nrel.gov/docs/fy25osti/93281.pdf

   Response:

   PNM is open to exploring this as a stakeholder request, but we prefer to evaluate all technologies on an even footing using a consistent set of underlying assumptions to prevent modeling bias. If the objective is to observe how a portfolio shifts by adjusting a single cost variable, we believe those takeaways can likely be inferred from the existing modeling runs already being conducted.

   For example, if the underlying goal is to evaluate the cost-effectiveness of lower BESS costs against natural gas peakers, one could compare the CTP with gas to the CTP No New Gas scenarios. This comparison allows for the calculation of a likely break-even point, identifying the specific cost threshold at which batteries become more economical than new gas alternatives without requiring a standalone model run.

Follow Up from Email (IRP@pnm.com)
3/13/26

The items below are not specific questions but could help shape specific stakeholder scenario requests which would be the appropriate means to address.

1. High level goal: Ensure New Mexico reaches the ETA's 80% renewable by 2040 & 100% carbon free electric grid RPS targets by 2045, and PNM by 2040, with as few carbon emissions as possible in the meantime, with minimized costs to the customer. This end state is likely to rely 80-90% on solar & wind with battery storage and VPP/DR and with the last increment filled by clean, firm geothermal, with batteries covering the peaking needs. Battery and solar costs should be modeled as continuously declining which is the long-term trend. Existing transmission capacity should be maximized with GETs and other upgrades.

   Gridworks has recently issued invitations for stakeholder groups specifically designed to address many of the topics raised in this discussion.

2. Geothermal: Replace some of the six existing PNM gas combustion plants with geothermal plants of the same or larger capacity at the same location using the existing grid connection. Also, model expanding the capacity of these existing substations and connections to see if any of these are cost-effective locations to build more geothermal capacity.

   PNM is open to exploring this as a stakeholder request, though we would like to further discuss the additional value provided by this level of granularity.
   By comparison, other stakeholder requests - such as evaluating enhanced geothermal with a potential 60% reduction in capital expenditure - could fundamentally shift the entire portfolio. In contrast, exploring substation-level data, for example, is likely to be immaterial to the final generic resource mix when compared to these broader changes in underlying technology costs.

3. Geothermal: New geothermal should be modeled at the lower capex $ per kW value in Luke Frash slides, instead of PNM's proposed $15,700/kW. These lower values are: EGS, enhanced geothermal capex at $6,100/kW available 2030Classic hydrothermal capex at $5,100/kW available 2030

   PNM is open to exploring this as a stakeholder request although the 2030 date is not realistic and would need to be reasonable for a meaningful stakeholder scenario.

4. Geothermal: Compare the cost of Hydrothermal and EGS to the cost of the PNM's current 518 MW hydrogen burn conversion, on p.26 of workshop-3, "Beginning 2045

La Luz, Lordsburg and any new gas CT's include H2 burn conversion cost and utilize H2 as fuel" . Use the lower geothermal capex #s above. Ensure to burden the hydrogen option with the ~$4.7 billion capex cost of PNM generating the green H2 fuel

PNM is open to exploring this as a stakeholder request, but we believe the impact of additional capital expenditure can be readily calculated using the results of existing modeling runs. Consequently, a standalone scenario may not be necessary to effectively quantify these cost adjustments.

5. Model costs of solar + BESS if prices of both drop 25-30% by 2035 per BNEF forecast

   PNM is open to exploring this as a stakeholder request, but we prefer to evaluate all technologies on an even footing using a consistent set of underlying assumptions to prevent modeling bias. If the objective is to observe how a portfolio shifts by adjusting a single cost variable, we believe those takeaways can likely be inferred from the existing modeling runs already being conducted.

   For example, if the underlying goal is to evaluate the cost-effectiveness of lower solar + BESS costs against natural gas peakers, one could compare the CTP with gas to the CTP No New Gas scenarios. This comparison allows for the calculation of a likely break-even point, identifying the specific cost threshold at which solar + batteries become more economical than new gas alternatives without requiring a standalone model run.

6. Model the impact of VPP virtual power plants at some high rate of penetration, sufficient to sum to the size of a gas peaker plant - like 50MW.

   Gridworks have recently sent out invitations for stakeholder groups that specifically consider VPPs / DERs.

7. What are the impacts to combustion power plants if the forecasts of water scarcity come to pass? See the Leap Ahead Report. At a minimum, model the potential impacts on the availability and cost of CT cooling water Also model risks to the social license to operate if cooling water is seen to compete with water available for drinking or for agriculture. See New Mexico Water Advocates and the state engineer's OSE Report.

   Response: The amount of water needed for simple cycle combustion turbine operation is minimal. In comparison to other steam cycle generation technologies such as geothermal, simple cycle CT's require 90% less water. For combined cycle operation, the amount of water would be similar to geothermal as they employ the same steam cycle. Depending on the technology selected in the portfolio, the water required would be minimal if any gas turbine are simple cycle or have a larger

impact if combined cycle. Stakeholders may request a stakeholder scenario to understand the impacts.

8. Model the impacts of the forecasted increases in extreme weather on the electric grid, including drought, wildfire, heat waves, and also extreme cold events due to polar vortex disruption.

   PNM already incorporates extreme weather risks into its resource adequacy framework by utilizing Loss of Load Probability (LOLP) modeling. This stochastic approach allows the model to simulate thousands of potential weather years, capturing the compounding effects of extreme temperature volatility and resource derates.

   Furthermore, PNM is open to exploring additional weather-specific scenarios through the defined stakeholder request process to further test the grid's resilience against these evolving risks provided these can be meaningfully defined.

9. How can I not conclude that this results in 388MW of new gas operating well through 2045 (not 2040) then becoming stranded assets, for which PNM will ask the commission to grant an ETA variance to keep the plants operating for the typical 25-30 year useful life, in order to recover their investment.

   Response: PNM has noted that any combustion technology that continues to operate beyond 2045 would need to be converted to a non-carbon fuel source (hydrogen) which does not require a variance to the ETA. A stakeholder scenario can explore other options.