EXECUTIVE SUMMARY

Background

Every three years, PNM is required to prepare an Integrated Resource Plan (IRP)[1]. In this IRP, PNM has analyzed cost-effective power supply plans under two scenarios:

- San Juan Generating Station (SJGS) retires after the end of the current coal supply agreement, terminating June 30, 2022
- SJGS continues to operate beyond 2022

The purpose of an IRP is to identify the most cost-effective resource mix that would meet the projected electricity demands of PNM's customers over the next 20 years, and to develop a four-year action plan that is consistent with that resource mix. PNM prepared this IRP for the period 2017 through 2036, examining all cost-effective resource options under a wide variety of possible futures for its energy portfolio. The four-year action plan is designed to test the assumptions in this report and maintain flexibility to adjust the mix of replacement supplies as the price and capabilities of renewable energy, natural gas, and energy storage technologies evolve over the next four years.

Key Findings

The most significant finding of the IRP is that retiring PNM's 497-MW share of SJGS in 2022 would provide long-term cost savings for PNM's customers. It's important to note that this finding assumes that PNM is able to recover the full cost of the remaining plant investment after SJGS retirement. This is consistent with what's known as the "regulatory compact," under which government regulators grant PNM the ability and obligation to serve as the sole supplier of electricity to all customers in a specific area. In return, PNM must provide reliable service, meet state and federal regulations, and work in the best interests of customers. In doing so, PNM has the right to recover prudent costs, including the opportunity to make a reasonable return on investments.

With this plan, PNM would be coal-free in 2031.

The results of the IRP illustrates that energy needs are changing and replacing coal supply with renewable energy and more flexible generators will save money in the long run. Accordingly, the analysis found that PNM exiting its 13 percent share in the Four Corners Power Plant (FCPP) after the coal supply agreement expires in 2031 would also save customer money. This action would eliminate coal from PNM's generating fleet.

Retiring SJGS would result in the loss of jobs in the Farmington area. These high-wage positions will not be easily replaced. PNM will work with the most affected communities to mitigate the impact of these changes.

[1] In accordance with 17.7.3 New Mexico Administrative Code, Integrated Resource Plan for Electric Utilities.

New Supply-Side Resources

PNM recognizes that renewable energy, natural gas, and energy storage technologies are rapidly evolving. The best mix of new resources currently includes solar energy and flexible natural gas-fired peaking capacity, which provides continuous reliability. The mix may also include energy storage, depending on the economics of the proposals PNM receives through a solicitation that the company will conduct as described in the action plan. Wind energy is also a possibility. However, the best wind conditions are in Eastern New Mexico, and transmission lines from that area are nearing maximum capacity. Only a limited amount of new wind energy can added to serve PNM's customers until new transmission capacity is developed.

Over the four-year action plan period, PNM will validate the assumptions in this report and rebalance the mix of replacement resources by monitoring and updating the analysis as price and capabilities of these technologies evolve.

Continuing Supply-Side Resources

Through 2022, PNM's existing supply-side resources, except for SJGS, will remain a part of the cost-effective resource base. These resources provide energy and capacity from renewable sources (wind, solar, and geothermal) as well as nuclear, coal, and natural gas-powered resources.

PNM owns 288 MW of PVNGS and leases another 114 MW, with leases of 104 MW expiring in 2023 and 10 MW expiring in 2024. Retention of this leased capacity beyond 2023 would preclude the need to replace it with carbon-emitting generation and would preserve the CO_2 emission reductions that result from the SJGS retirement. If carbon-emitting generation were to replace PNM's leased nuclear generation resources, it would offset at least some of those CO_2 emission reductions. Moreover, retention of the leased capacity preserves fuel diversity in the PNM portfolio, minimizes freshwater use, and serves as a balance against potential increases in natural gas prices.

Access to Power Markets

PNM also utilizes energy purchases and sales from the wholesale market to enhance reliability and reduce costs to customers. Power markets are changing rapidly. PNM's plan includes an assessment of how best to maintain real-time opportunities to purchase and sell energy by studying the costs and benefits of joining the California Energy Imbalance Market (EIM).

Assess and Update Existing Systems

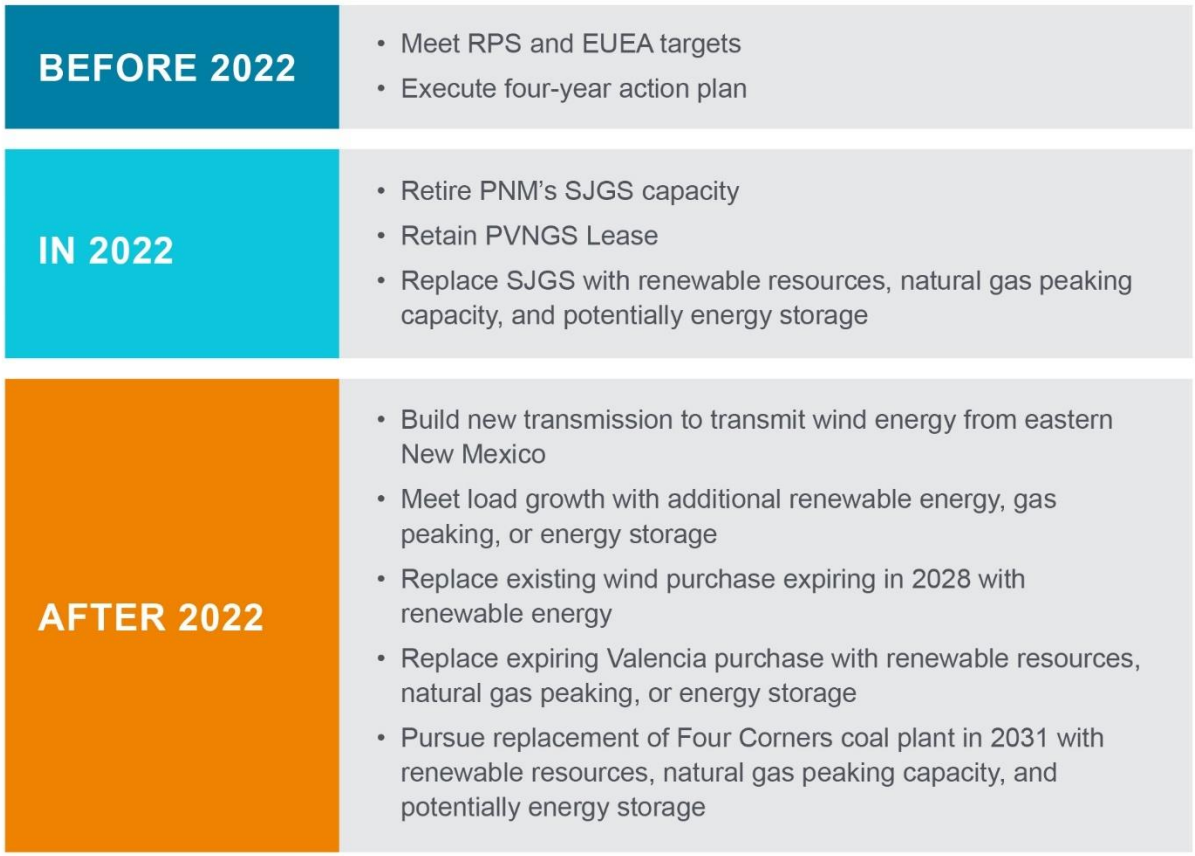
As part of the IRP analysis, PNM studied its power transmission system to identify locations for new resources that would not require construction of additional transmission. Replacing SJGS and Four Corners will require replacement supplies in the Four Corners region. While some locations are preferable to others in terms of the cost to interconnect new resources and the need to maintain adequate energy supply throughout PNM's Balancing Area, sufficient transmission capacity exists to connect new resources to the existing transmission system. The existing transmission system from Eastern New Mexico, where the best potential for wind supplies exists, is currently fully subscribed. This limits the ability for new wind resources to meet energy supply needs until new transmission capability is built.

The four-year action plan includes an assessment of PNM's oldest power plant: the three-unit Reeves Generating Station. Maintaining energy supply at Reeves is a critical element of PNM's system reliability for Albuquerque. PNM will consider possible technology improvements to phase out the older generators and replace them with new, more flexible supplies or energy storage.

The Most Cost-Effective Portfolio

The Most Cost-Effective Portfolio (MCEP) is summarized in Figure 1. PNM recommends this plan because it best meets the objectives to "identify the most cost-effective portfolio of resources to supply the energy needs of customers. For resources whose costs and service quality are equivalent, the utility should prefer resources that minimize environmental impacts." This plan cost-effectively maintains a reasonable reliability expectation while achieving the lowest freshwater use and carbon emissions while meeting regulatory requirements.

Figure 1. MCEP Summary



Four-Year Action Plan

The Recommendations section of this IRP further details the four-year action plan. In summary, PNM will do the following over the plan period:

- Continue to develop and implement energy efficiency and demand management programs
- Add renewable energy resources to maintain compliance with the RPS

- Explore options to maintain system supply and reliability
    - Assess the costs and benefits of joining the California Energy Imbalance Market
    - Participate in regional transmission planning groups
    - Complete an economic assessment of the Reeves Generating Station to develop a plan for Reeves that coordinates with the need for replacement resources, assuming PNM retires SJGS in 2022
- File for SJGS abandonment with the New Mexico Public Regulation Commission
    - File for abandonment of SJGS no later than July 1, 2018
    - Secure the Palo Verde leased capacity
    - Issue Requests For Proposals for energy storage, renewable energy and flexible natural gas resources to validate the assumptions in this report and to further refine the mix of replacement resources assuming SJGS retires in 2022
    - Define SGJS replacement resource siting requirements by conducting a power flow study
    - Pursue securitization legislation to provide additional long term customer cost savings and to provide funds for replacement resources
- Identify the best opportunities to increase transmission capacity to eastern New Mexico to allow for future expansion of wind energy resources