Integrated Resource Plan:
Statement of Need Table of Contents
Working group suggestions for Public Service New Mexico - May 15, 2023

Statement of Need 17.7.3.10

- The statement of need is a description and explanation of the amount and the types of new resources, including the technical characteristics of any proposed new resources, to be procured, expressed in terms of energy or capacity, necessary to reliably meet an identified level of electricity demand in the planning horizon and to effect state policies.
- The statement of need shall not solely be based on projections of peak load. The need may be attributed to, but not limited by, incremental load growth, renewable energy customer programs, or replacement of existing resources, and may be defined in terms of meeting net capacity, providing reliability reserves, securing flexible resources, securing demand-side resources, securing renewable energy, expanding or modifying transmission or distribution grids, or securing energy storage as required to comply with resource requirements established by statute or commission decisions.

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1. Introduction
   The statement of need is that part of the IRP that describes and explains the amount and type of new resources that are necessary to reliably meet projected electricity demand in the planning horizon.
   a. Traditionally "need" expressed as the amount of capacity required to serve projected peak load
   b. "Need" must now be derived from a variety of factors including emissions reductions goals and requirements, reliability reserve requirements, replacements of existing resources, the role of flexible, demand-side and storage resources, customer renewable energy programs, availability of organized markets, the capabilities of existing transmission and distribution facilities and the impact on customers, workers and communities
   c. Informs the action plan

2. Vision and Goals
   a. Regulatory Environment and Requirements
      i. Legal requirements and standards in planning horizon
      ii. Known and expected rules
   b. Goals
      i. Reliability and Resiliency: Utility's Obligation to Serve
         1. Minimum Reserve Requirements
         2. Reliability Standards
         3. Swift recovery from climate or cyber disruption
      ii. Public Interest and Equity
         1. Responsibilities to Ratepayers and Shareholders
            a. Affordability
            b. Availability to Underserved Communities

        c. Climate Justice for individuals and communities impacted by plant retirements or local pollution
    2. Social and Environmental Costs
        a. Costs of Energy to Consumers
        b. Climate Change Impacts
        c. End of Life (Recycling/disposal)
    3. Consumer Education
    4. NIMBY
3. Current and Expected System Conditions
    a. Timeline
        i. Urgency (What is driving the urgency?)
    b. Load Forecast
        i. Electrification Impact
    c. Baseline System
        i. Forecasted Retirements
        ii. Transmission Constraints
        iii. Distribution System Constraints
4. Identified Decision Points and Pathways
    a. “Getting to Zero” Carbon
    b. Making “no regrets” decisions
        i. Minimizing investment risk
    c. Regional Planning and Coordination
        i. Organized Market Opportunities
        ii. Future Regional Transmission Operator
5. Resources
    a. Candidate Resources
        i. Solar
        ii. Wind
        iii. Aeroderivative gas CT
        iv. Linear generator units
        v. Lithium-ion battery
        vi. Redox-flow battery
        vii. Iron-air storage
        viii. Very-long duration/seasonal storage
        ix. Pumped-hydro storage
        x. Compressed air energy storage
        xi. Liquified air energy storage
        xii. Thermal energy storage
        xiii. Green Hydrogen
    b. Potential New Resources
        i. Adoption of new technologies
        ii. High Penetration of Distributed/Customer-owned Generation
        iii. Firming Plans
        iv. Energy efficiency and demand-response

v. Cost-effective repowering or upgrading of existing fossil resources to minimize risk of stranded investment or delayed decarbonization

c. [System Needs]
d. Preferred Portfolio
    i. [results of PNM modeling]
    ii. Potential pilot projects
    iii. [PNM conclusions]