



SOUTHWESTERN PUBLIC SERVICE COMPANY 2023 New Mexico integrated resource plan

October 3, 2023

Statement of Need – 2030 Resource Needs

There are resource needs by 2027 that are currently being addressed by the 2021 IRP Action Plan. SPS/Xcel Energy also has capacity need ranging from 1,760 to 3,963 MWs by 2028-2030, depending on planning assumptions. This translates to a resource need ranging 5,314 MW to 10,211 MW, depending on planning assumptions and the nature of resources modeled to meet the capacity need. These needs require commencement of the resource procurement process as soon as possible. Key inputs to the planning assumptions underlying the capacity needs and resources projected to fill such capacity needs are:

- Load Forecasts:
 1. Planning
 2. Electrification and emerging technologies
 3. Financial
- Technology Cases:
 1. Multi-jurisdictional Baseline (“MJB”),
 2. Existing Commercially Available Carbon Free Dispatchable Technology Resources (“ET”),
 3. Long Duration Storage,
 4. Gas-to-hydrogen Conversion
- Based on generic pricing, Recommended/Preferred Portfolio has potential for:
 - A range of 4,271 to 6,631 MW of new clean energy resources (wind/solar)
 - A range of 1,043 to 4,290 MW from dispatchable resources (i.e., resources that can be called upon at anytime)
 - Dispatchable storage resources range from 10 to 4,290 MW (depending on planning assumptions)

Projects bid into the RFP and selected through the resource procurement process will determine the most effective cost portfolio that SPS ultimately identifies.

Statement of Need – 2030 Resource Needs

	Resources Added 2028-2030 (Nameplate Capacity)						
	Dispatchable				Variable Energy Resources		
	Firm Peaking	CC	Storage	Total	Wind	Solar	Total
Financial Forecast							
15% PRM							
Multi-Jurisdictional Baseline*	933	-	130	1,063	3,390	1,021	4,411
Existing Technologies	-	-	1,380	1,380	3,500	1,021	4,521
Long Duration Storage	-	-	1,280	1,280	3,500	1,091	4,591
Hydrogen Conversion	933	-	110	1,043	3,250	1,021	4,271
18%/20% PRM							
Existing Technologies	-	-	1,670	1,670	3,500	1,021	4,521
Long Duration Storage	-	-	1,540	1,540	3,500	1,091	4,591
Hydrogen Conversion	933	-	410	1,343	3,500	1,021	4,521
Planning Forecast							
15% PRM							
Multi-Jurisdictional Baseline*	700	837	100	1,637	3,500	1,301	4,801
Existing Technologies	-	-	2,220	2,220	3,500	1,021	4,521
Long Duration Storage	-	-	1,980	1,980	3,500	1,831	5,331
Hydrogen Conversion	933	837	170	1,940	3,500	1,051	4,551
18%/20% PRM							
Existing Technologies	-	-	2,530	2,530	3,500	1,021	4,521
Long Duration Storage	-	-	2,310	2,310	3,500	1,771	5,271
Hydrogen Conversion	933	837	360	2,130	3,500	1,021	4,521
Electrification & Emerging Technologies							
15% PRM							
Multi-Jurisdictional Baseline*	933	2,511	10	3,454	3,500	1,211	4,711
Existing Technologies	-	-	3,810	3,810	3,500	2,271	5,771
Long Duration Storage	-	-	3,260	3,260	3,500	3,011	6,511
Hydrogen Conversion	933	837	1,580	3,350	3,500	1,341	4,841
18%/20% PRM							
Existing Technologies	-	-	4,290	4,290	3,500	2,371	5,871
Long Duration Storage	-	-	3,580	3,580	3,500	3,131	6,631
Hydrogen Conversion	933	837	1,990	3,760	3,500	1,021	4,521

*Multi-jurisdictional baseline provides information for SPS's other jurisdictions and does not incorporate New Mexico's Energy Transition Act. ET, LDS, HC as shown in this table are all NM ETA compliant.

REPRESENTATIONS SUBJECT TO SPS INTERNAL REVIEW AND FINAL EXECUTIVE APPROVAL

Statement of Need – Planning Period

The resource needs through the Planning Period (2028 – 2043) are projected to range from 12,595 MW and 23,610 MW, depending on the following planning assumptions:

- Load Forecasts:
 1. Planning
 2. Electrification and emerging technologies
 3. Financial
- Technology Cases:
 1. Multi-jurisdictional Baseline (“MJB”),
 2. Existing Commercially Available Carbon Free Dispatchable Technology Resources (“ET”),
 3. Long Duration Storage,
 4. Gas-to-hydrogen Conversion

Based on generic pricing, Recommended/Preferred Portfolio has potential for:

- 7,799 to 13,859 MW of new clean energy resources
- 4,470 to 11,200 MW from dispatchable resources (i.e., resources that can be called upon at anytime)
- Dispatchable storage resources range from 130 to 11,200 MW (depending on planning assumptions)

Statement of Need – Planning Period

Resources Added 2028-2043 (Installed Capacity)								
Dispatchable					Variable Energy Resources			
	Firm Peaking	CC	Storage	Sub Total	Wind	Solar	Sub Total	Grand Total
Planning Forecast								
MJB	4,899	837	390	6,126	6,120	4,209	10,329	16,455
ET	-	-	10,390	10,390	9,840	2,769	12,609	22,999
LDS	-	-	6,000	6,000	10,210	3,649	13,859	19,859
HC	933	837	7,090	8,860	9,640	2,799	12,459	21,299
Electrification & Emerging Technologies								
MJB	3,500	2,511	570	6,580	5,700	3,869	9,569	16,149
ET	-	-	11,200	11,200	8,730	3,680	12,410	23,610
LDS	-	-	6,530	6,530	9,080	4,759	13,839	20,369
HC	933	837	8,140	9,910	8,740	2,750	11,490	21,400
Financial Forecast								
MJB	4,666	-	130	4,796	4,740	3,059	7,799	12,595
ET	-	-	7,960	7,960	7,720	2,769	10,489	18,449
LDS	-	-	4,470	4,470	8,140	2,839	10,979	15,449
HC	933	837	4,710	6,480	7,080	2,769	9,849	16,329

*Multi-jurisdictional baseline provides information for SPS's other jurisdictions and does not incorporate New Mexico's Energy Transition Act. ET, LDS, HC as shown in this table are all NM ETA compliant.

Statement of Need Objectives

- Reliability and resiliency
- Cost effective resource portfolio
- Meet the RPS requirements to the best of ability while considering affordability and system reliability
- Meet projected load growth and secure replacement energy and capacity for retiring resources Robust energy system that furthers diverse economic development in the state
- Meet evolving resource adequacy requirements
- Ensuring affordability to all SPS customers, including residential and low-income customers, as the system transitions
- Providing a just and orderly transition for workforce, customers, and communities, including consideration of replacement generation in communities affected by accelerated retirements.
- Engaging customers to help the utility reliably serve during grid constrained events

SPS Suggested Action Plan Items

SPS Items
<ul style="list-style-type: none"> •Develop All Source RFP for resource need in the 2028-2030 time frame including PPA extensions •Engage Independent Evaluator per NMPRC rules •Develop RFP bid evaluation documents, including reliability and resiliency assessments and fuel security. •Select portfolio of resources for the 2028-2030 time frame based on bid evaluation •File CCN/PPA approval •Develop RFI for long-lead time emerging dispatchable, tech resources ahead of next IRP cycle •Evaluate Demand Response options, including Interruptible Credit Option, and request regulatory approval where appropriate

Action Plan Items – as of 9/13/23 Stakeholder Meeting

Common Items

COMMON ITEMS
<ul style="list-style-type: none"> •Evaluate existing generation life extensions for SPS owned units •Priority of reliability, resiliency and affordability...Actions TBD •Evaluate Demand Response options, including Interruptible Credit Option, and request regulatory approval where appropriate....add elements from SH list •Develop RFI for long-lead time emerging dispatchable, tech resources ahead of next IRP cycle (under SPS internal consideration) •Develop All Source RFP for resource need in the 2028-2030 time frame including PPA extensions •Engage Independent Evaluator per NMPRC rules •Develop RFP bid evaluation documents, including reliability and resiliency assessments and fuel security. •Select portfolio of resources for the 2028-2030 time frame based on bid evaluation •File CCN/PPA approval

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Stakeholder Suggested Action Plan Items

STAKEHOLDER ITEMS
<ul style="list-style-type: none"> •The end result should ensure reliability, affordability and resiliency. If affordability and dispatchability is not serious consider you haven’t done your job. •I want to see SPS address in their action plan how they will ensure system reliability and resiliency. Affordability to consumers and a continued investment in our Local Communities. •...suggests that Xcel prioritize they will ensure system reliability and resiliency as well as continued expansion of and investment in the electrical grid serving Eddy County. •Analysis / study of how to reduce O&G connected load through voluntary program(s) and/or Special Service contracts. (question: other large loads beyond O&G) •Analysis / study of interruptible tariff(s) for high-tech and other loads. •engage customers to help the utility reliably serve all during grid constrained events, including new rate structures. •Explore PPA extensions. •Determine value of demand response (based on modeled scenario) and initiate a stakeholder process to design an appropriate DR program. •Load mgt time of use – pursue time varying rates as part of grid modernization. •Include fugitive methane emissions in the upcoming RFP analysis. •Compare EE procurements through the established three-year EE plan review process with the assumptions in the IRP modeling effort. •Include carbon emissions in RFP evaluation criteria. •Conduct an independent analysis of life cycle emissions relevant to NM electric utilities (might require legislation) •Incorporate the contributions from the SPS Grid Mod and EE/DR proceedings into the IRP.

SPS Suggested Action Plan Items

SPS Items	
•Develop All Source RFP for resource need in the 2028-2030 time frame including PPA extensions	
•Engage Independent Evaluator per NMPRC rules **	
•Develop RFP bid evaluation documents, including reliability and resiliency assessments and fuel security.	
•Select portfolio of resources for the 2028-2030 time frame based on bid evaluation	
•File CCN/PPA approval	
•Develop RFI for long-lead time emerging dispatchable, tech resources ahead of next IRP cycle	
•Evaluate Demand Response options, including Interruptible Credit Option, and request regulatory approval where appropriate	
<div>**Please note the Commission engages Independent Monitor and SPS works with IM through RFP process</div>	

Action Plan Items – Adjusted per Stakeholder Discussion

Common Items

COMMON ITEMS
•Evaluate existing generation life extensions for SPS owned units
•Priority of reliability, resiliency and affordability...Actions TBD
•Evaluate Demand Response options, including Interruptible Credit Option, and request regulatory approval where appropriate....add elements from SH list
•Develop RFI for long-lead time emerging dispatchable, tech resources ahead of next IRP cycle (under SPS internal consideration)
•Develop All Source RFP for resource need in the 2028-2030 time frame including PPA extensions
•Engage Independent Evaluator per NMPRC rules **
•Develop RFP bid evaluation documents, including reliability and resiliency assessments and fuel security.
•Select portfolio of resources for the 2028-2030 time frame based on bid evaluation
•File CCN/PPA approval
•Include Interruptible tariff request in upcoming Energy Efficiency Reconciliation Filing
•Once approved, evaluate Renewable*Connect Voluntary Program for large industrial customers and analyze whether to expand the program and analyze other possible program offerings
•SPS currently has time varying rates. However, SPS will conduct a TOU Study per Rate Case Stipulation

Stakeholder Suggested Action Plan Items

STAKEHOLDER ITEMS
•The end result should ensure reliability, affordability and resiliency. If affordability and dispatchability is not serious consider you haven't done your job.
•I want to see SPS address in their action plan how they will ensure system reliability and resiliency. Affordability to consumers and a continued investment in our Local Communities.
•...suggests that Xcel prioritize they will ensure system reliability and resiliency as well as continued expansion of and investment in the electrical grid serving Eddy County.
•Analysis / study of how to reduce O&G connected load through voluntary program(s) and/or Special Service contracts. (question: other large loads beyond O&G)
•Analysis / study of interruptible tariff(s) for high-tech and other loads.
•engage customers to help the utility reliably serve all during grid constrained events, including new rate structures.
•Explore PPA extensions.
•Determine value of demand response (based on modeled scenario) and initiate a stakeholder process to design an appropriate DR program.
•Load mgt time of use – pursue time varying rates as part of grid modernization.
•Include fugitive methane emissions in the upcoming RFP analysis.
•Compare EE procurements through the established three-year EE plan review process with the assumptions in the IRP modeling effort.
•Include carbon emissions in RFP evaluation criteria.
•Conduct an independent analysis of life cycle emissions relevant to NM electric utilities (might require legislation)
•Incorporate the contributions from the SPS Grid Mod and EE/DR proceedings into the IRP.

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Stakeholder Suggested Action Plan Items

Action Plan Items – Unadopted Items and Discussion of Rationale

STAKEHOLDER ITEMS

- ~~The end result should ensure reliability, affordability and resiliency. If affordability and dispatchability is not serious consider you haven't done your job.~~
- ~~I want to see SPS address in their action plan how they will ensure system reliability and resiliency. Affordability to consumers and a continued investment in our Local Communities.~~
- ~~...suggests that Xcel prioritize they will ensure system reliability and resiliency as well as continued expansion of and investment in the electrical grid serving Eddy County.~~
- Analysis / study of how to reduce O&G connected load through **voluntary program(s)** and/or Special Service contracts. (question: other large loads beyond O&G) **(Category 1)**
- ~~Analysis / study of interruptible tariff(s) for high tech and other loads.~~
- engage customers to help the utility reliably serve all during grid constrained events, including new rate structures. **(Category 2)**
- ~~Explore PPA extensions.~~
- Determine value of demand response (based on modeled scenario) and initiate a stakeholder process to design an appropriate DR program. **(Category 2)**
- ~~Load mgt time of use — pursue time varying rates as part of grid modernization.~~
- Include fugitive methane emissions in the upcoming RFP analysis. **(Category 3)**
- Compare EE procurements through the established three-year EE plan review process with the assumptions in the IRP modeling effort. **(Category 2)**
- Include carbon emissions in RFP evaluation criteria. **(Category 3)**
- Conduct an independent analysis of life cycle emissions relevant to NM electric utilities (might require legislation) **(Category 3)**
- Incorporate the contributions from the SPS Grid Mod and EE/DR proceedings into the IRP. **(Category 2)**

1. Category 1: Requires more discussion in future forums
2. Category 2: Addressed through other Commission proceedings
3. Category 3: Legal and Regulatory Issues/Considerations with Request

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