

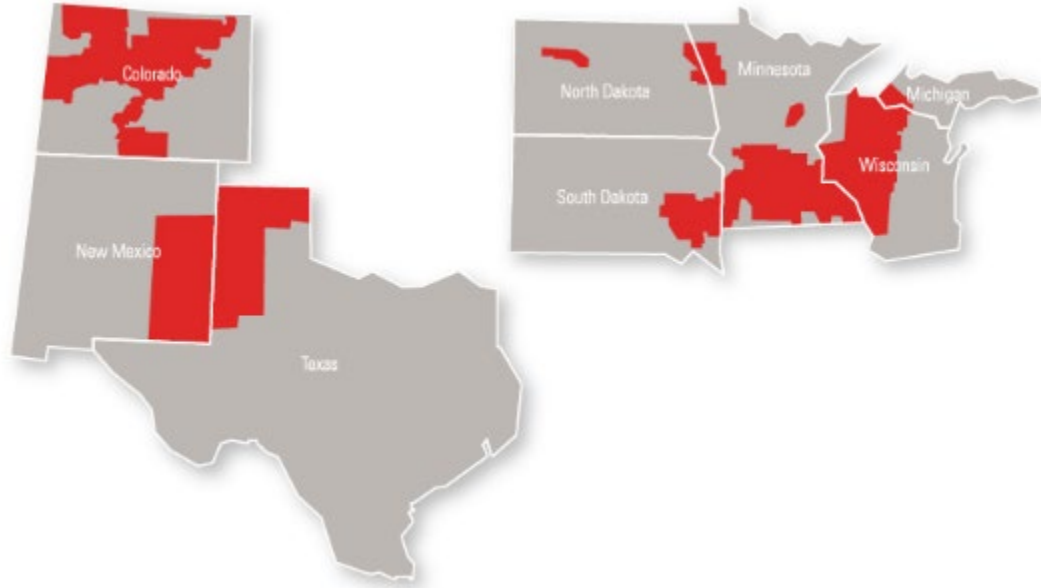


Regulatory Timelines: New Generation Resources for the New Mexico Public Utility

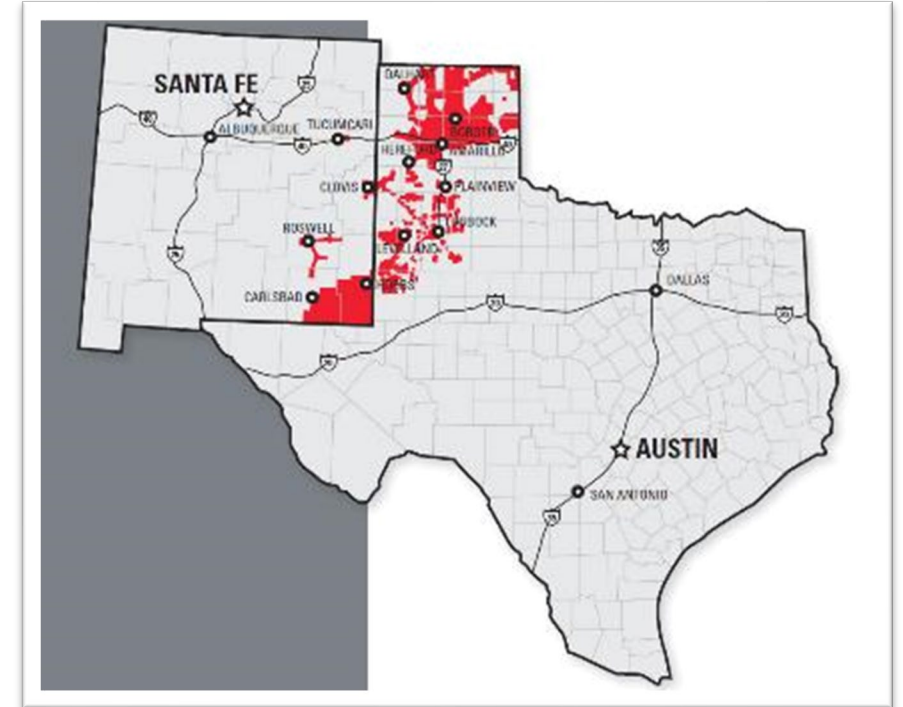
Zoë E Lees, Regional Vice President Policy and Planning

September 24, 2024

Who is Xcel Energy & Southwestern Public Service Company



Xcel Energy is a major U.S. regulated electric and natural gas delivery company that serves approximately 3.8 million electricity and 2.2 million natural gas customers across parts of eight Midwestern and Western states.



403,000 Customers
99.96% Electric Reliability
5,100MW Generation Capacity
41,000 Miles of Transmission Lines
24,000 Miles of Distribution Line

Customer's Service in New Mexico

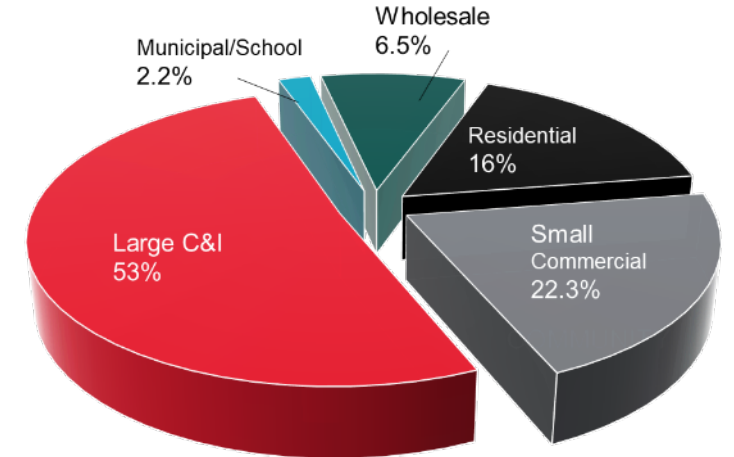
2024 SPS C&I Sales

- SPS serves a predominately Commercial & Industrial load
 - >50% of sales are to the oil and gas industry
- 2023 Sales are strong with 4.5% increase over 2022
- New Mexico MWh Sales continue to grow with development in Lea and Eddy County – 700MW+ over 10 years
 - 1300MW+ of new load requested by 2027

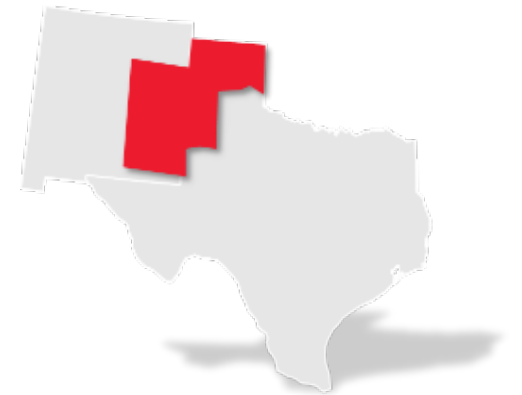


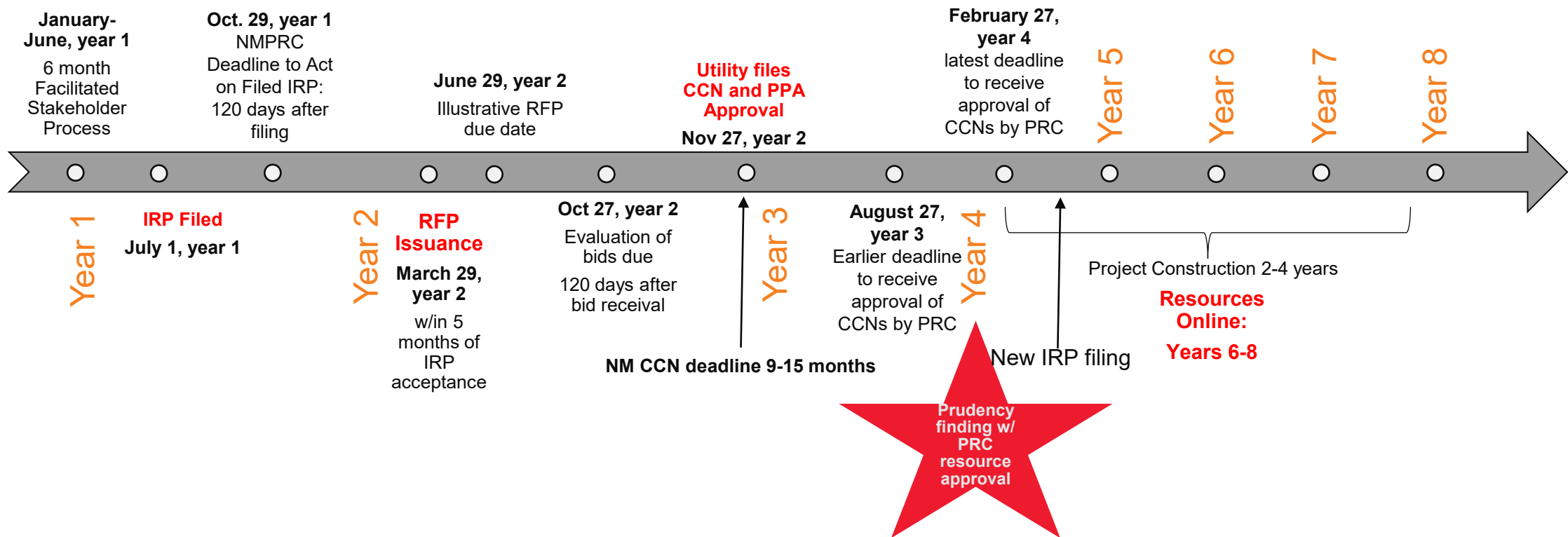
Oil and Gas production rates are paralleling load growth on the Southeastern New Mexico Electrical Grid

ELECTRICITY SALES



State MWh sales split
65.6% Texas
34.4% New Mexico





Resource Planning Illustrative Regulatory Process Timeline

Why do we care about the Regulatory Timelines?

Presentation activity

- Capital costs: initial investment required for building new generation facilities, including the cost of land, equipment, and construction. Sensitivity to capital costs is crucial it affects the overall financial viability of the project
- Financing Costs: The cost of financing, including interest rates and the availability of capital, can influence the overall cost of the project.
- Transmission and Distribution Costs: The cost of connecting new generation facilities to the grid, including transmission network upgrades and distribution infrastructure, can be a significant factor.
- Supply Chain: Multiple disruptions, including logistics bottlenecks, shortages of raw materials and components, and labor shortages, have resulted in rising costs and a scarcity of essential electric supplies. These disruptions have widened the gap between demand and supplies of electrical equipment and components
- Workforce Availability: lack of workforce availability can lead to increased costs of construction, project delays, and reduced quality and productivity due to inexperience.



Developer Cards

Presentation activity



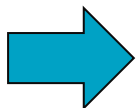
Resource Type



In service date



Must start construction



DSIS Queue Position



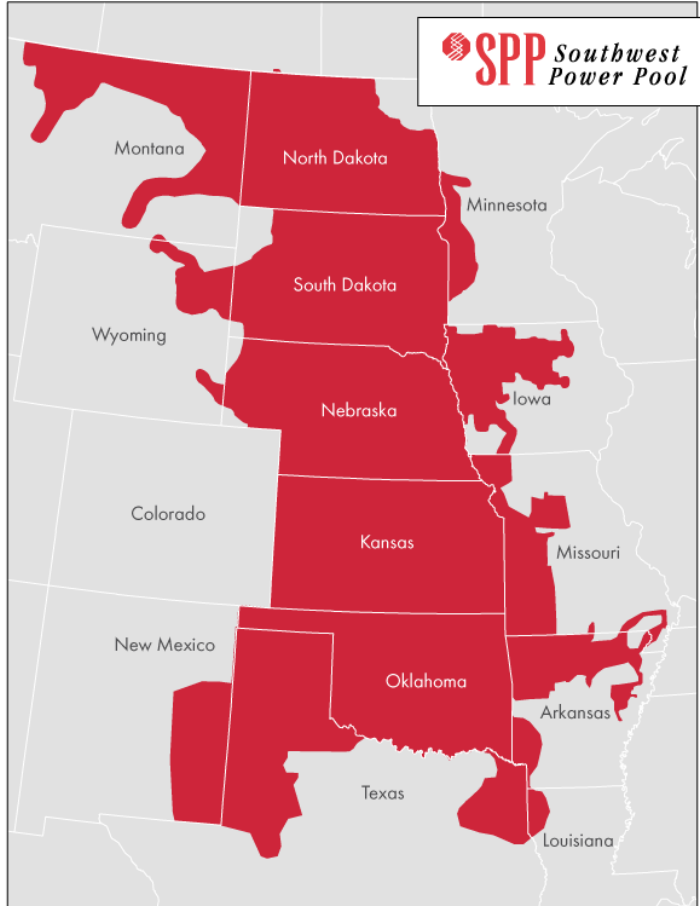


Planning considerations for activity

The SPP and Available Gen



Southwest Power Pool Membership



SPS is a member of the Southwest Power Pool ("SPP").

SPP is a regional transmission organization ("RTO") approved by FERC that oversees the bulk electric grid and wholesale power market in the central United States, providing a portfolio of services, including reliability coordination, tariff administration, regional scheduling, and market operations.

SPP also performs coordinated and transparent regional planning for more than 60,000 miles of high-voltage transmission facilities in the SPP footprint, is the balancing authority for the consolidated 14-state balancing area and operates the SPP Integrated Marketplace.

SPP Generation Interconnection Queue: for new generation

Definitive Interconnection System Impact Study (DISIS)

- Required for all generation that connects to or can impact the Transmission system
- Current Queue: approximately 408 projects, 83.3 GW
- 7 cluster studies currently in progress, all in various stages
- DISIS 2017-002 has agreements in progress; DISIS-2024-001 window currently open

Studies consist of three phases (outlined in Attachment V of the SPP OATT)

- Phase 1 – reliability impact
- Phase 2 – reliability and stability impact
- Phase 3 – reliability and stability, issuance Generation Interconnection Agreement (GIA)
 - Between Phases 1 and 2 and Phases 2 and 3, generators are required to pay or are withdrawn

System Resources – Commercially Available Technologies

<u>Renewable</u>	<u>Storage</u>	<u>Firm/Dispatchable</u>
Wind	BESS ¹	CTG ²
Solar		CC ³

- 1) Battery Energy Storage System (“BESS”)
- 2) Combustion Turbine Generator (“CTG”)
- 3) Combined Cycle (“CC”)



Xcel Energy's Sagamore Wind Farm, NM.



Xcel Energy's Sandhill Solar Farm, CO.



Hobbs Generation Station, NM.



Xcel Energy's Jones Station, TX.



Source Image: CESI

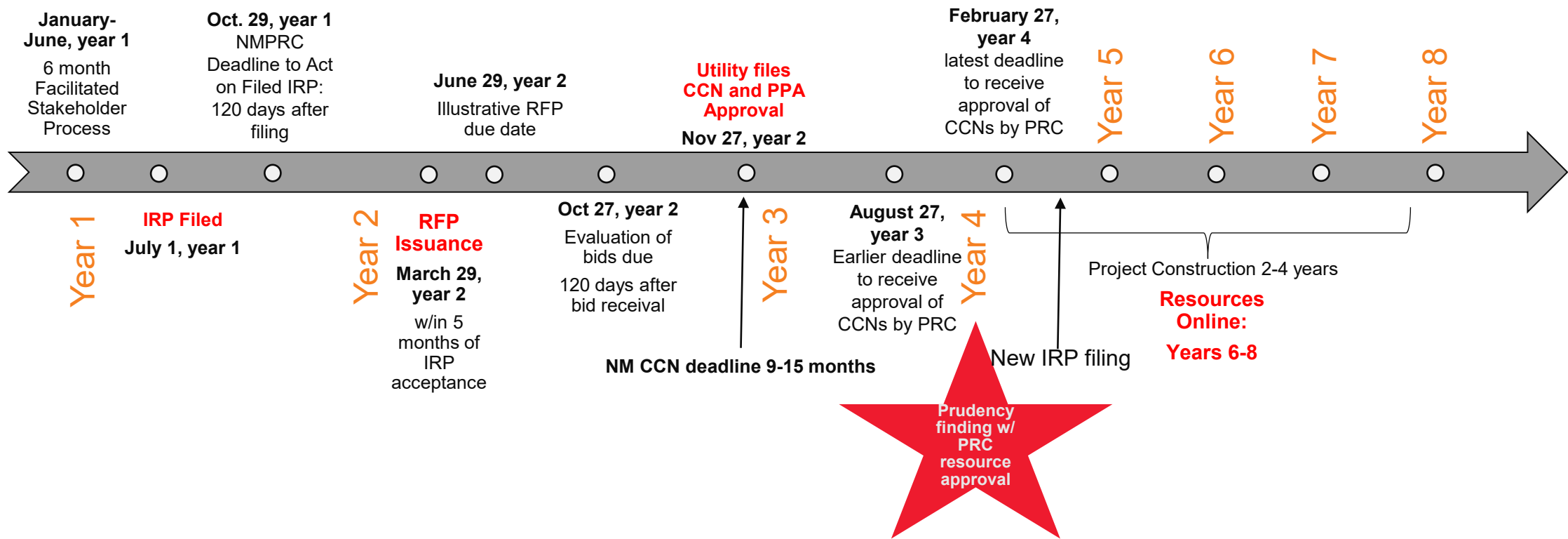
Resource Planning: Regulatory Requirements

Integrated
Resource
Planning

Request for
Proposals

Regulatory
Authorizations



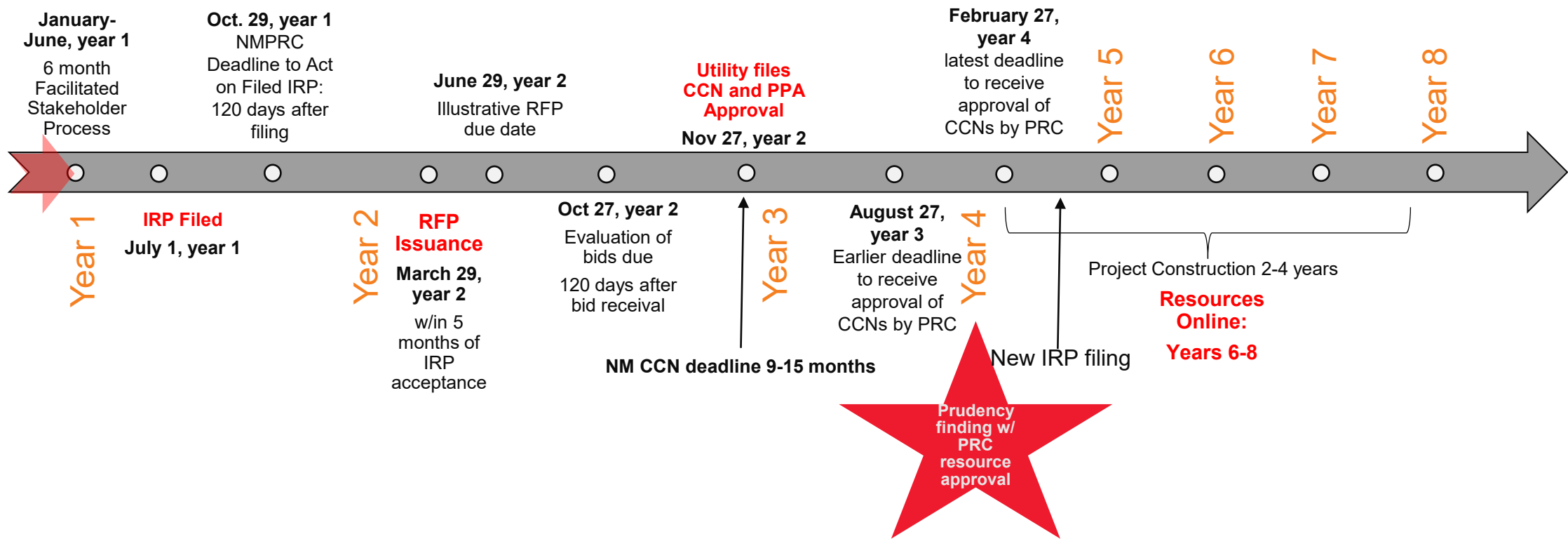


Resource Planning Illustrative Regulatory Process Timeline



Integrated Resource Planning





Resource Planning Illustrative Regulatory Process Timeline

IRP Requirements per Rule 17.7.3 NMAC

File a proposed integrated resource plan (IRP) to meet the service needs of its customers over the **planning period**. The plan shall show the resource options the utility intends to use to meet those needs. The plan shall also specify how the implementation and use of those resource options would vary with changes in supply and demand. The utility is only required to identify a resource option type, unless a commitment to a specific resource exists at the time of the filing. The utility shall also discuss any plans to reduce emissions from existing resources through sales, leases, deratings, or retirements.

- **Facilitated stakeholder process** means the statutory public advisory process pursuant to Section 62-17-10 NMSA 1978, conducted by a commission appointee to facilitate advisory discussions among stakeholders, including members of the public, to advise the public utility and reach potential agreement in the utility's development of its statement of need and action plan. Pursuant to rule this process is at least 6 months long.
- **Planning Period** means the future period for which a utility develops its IRP, which, for purposes of this rule, is 20 years.
- **Statement of Need** means a description and explanation of the amount and type of new resources, expressed in term of energy or capacity, necessary to reliably meet an identified level of electricity demand in the planning horizon and to effect state policies
- **Action Plan** means the proposed process and specific actions the utility shall carry out to implement the IRP spanning a three-year period following the filing of the utility's IRP.

SPS's Changing Capacity Position



SPP Planning Reserve
Margin Increases



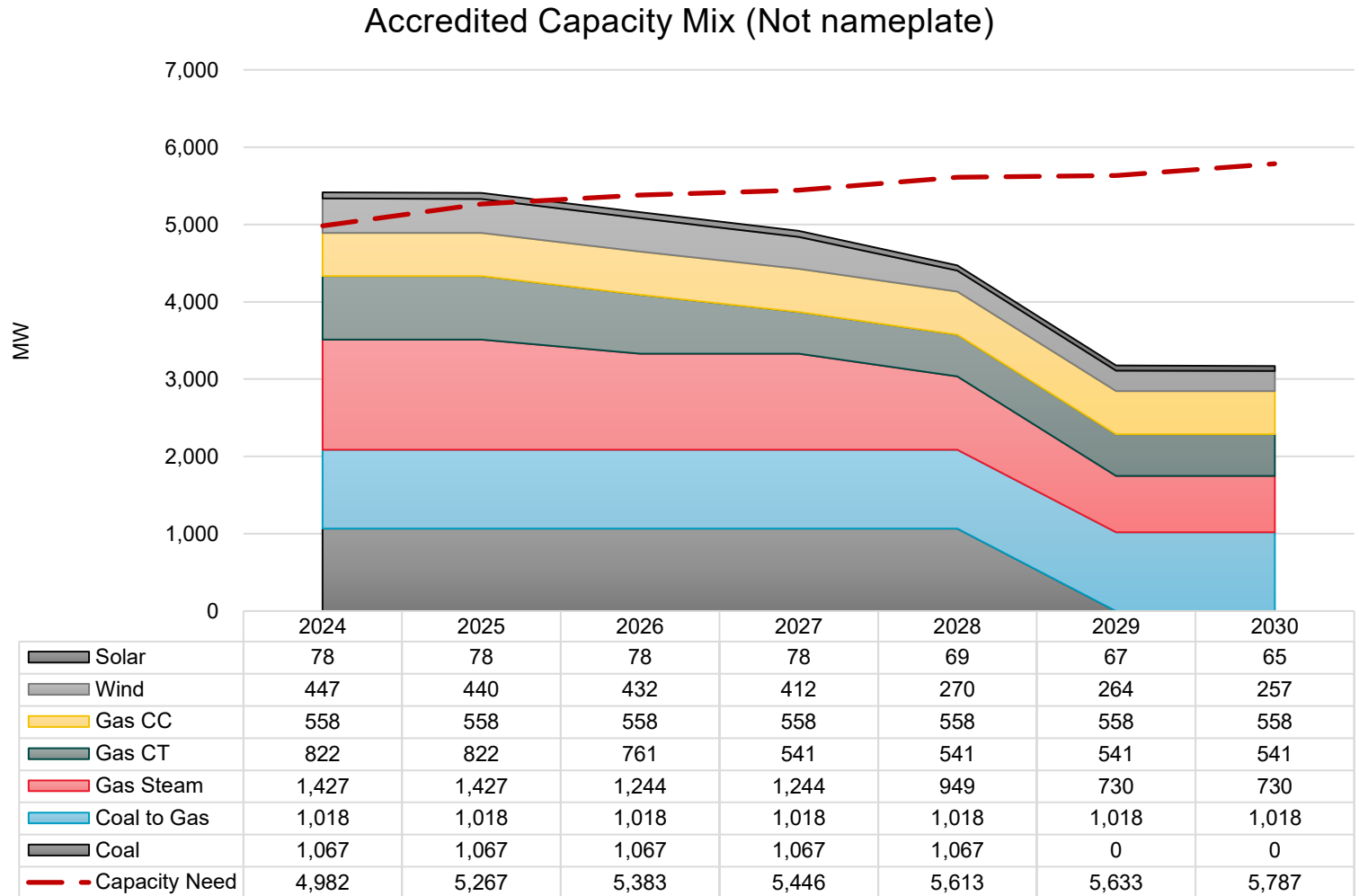
Increased Load



Generation Unit
Retirements

Decreasing Accredited Capacity

- Aging and retiring gas steam fleet
- Retirement of Tolk coal plant
- Expiring wind and gas PPAs
- ‘Firm and dispatchable’ resources will be required to replace retiring gas and coal resources
- Multi-year process to procure and construct new generating resources includes obtaining a Generator Interconnection Agreement from the SPP



Statement of Need

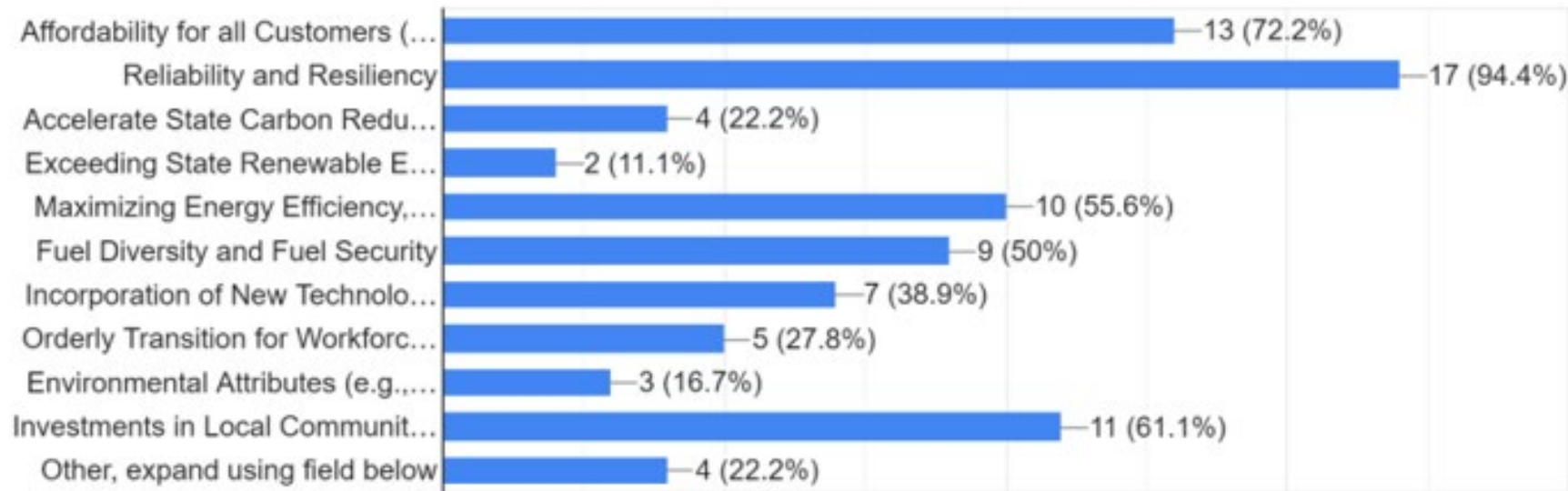
Resource Needs through the Planning Period (2028 – 2043) range from 12,595 MW to 23,610 MW, depending on planning assumptions

Resource Needs Near Term (2028 – 2030) range from 5,324 MW to 10,211 MW, depending on 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**

Facilitated Stakeholder Engagement Process

- Eight Stakeholder Meetings, including in-person meetings in Roswell and Hobbs
- 78 Organizations Represented
- Additional Interim Meetings – Modeling Working Group & Statement of Need Working Group
- During the August 1-2 meeting, Gridworks deployed a survey for stakeholders to submit priority needs. Results are below.



Action Plan

RFP within 5 months of Commission Action

SPS commits to evaluating the cost-effectiveness of extending the life of its gas-steam units as potential resources for comparison against received bids

Following the completion of the RFP process, SPS will file applications for generation CCNs and PPA preapprovals

SPS will also be advancing its efforts to build its renewable energy customer programs.

Through the stakeholder process, SPS and stakeholders developed a list of mutually supported items to include in the Action Plan. In addition to the general steps described above, SPS and stakeholders agree that SPS will:

Evaluate existing generation life extensions for SPS-owned units as discussed above;

Evaluate Demand Response options, including the Interruptible Credit Option, and request regulatory approval where appropriate;

Include an interruptible tariff request in Energy Efficiency Reconciliation filing;

Evaluate Renewable*Connect expansion as discussed above;

Conduct a TOU study according to the rate case stipulation in Case No. 22-00286-UT.

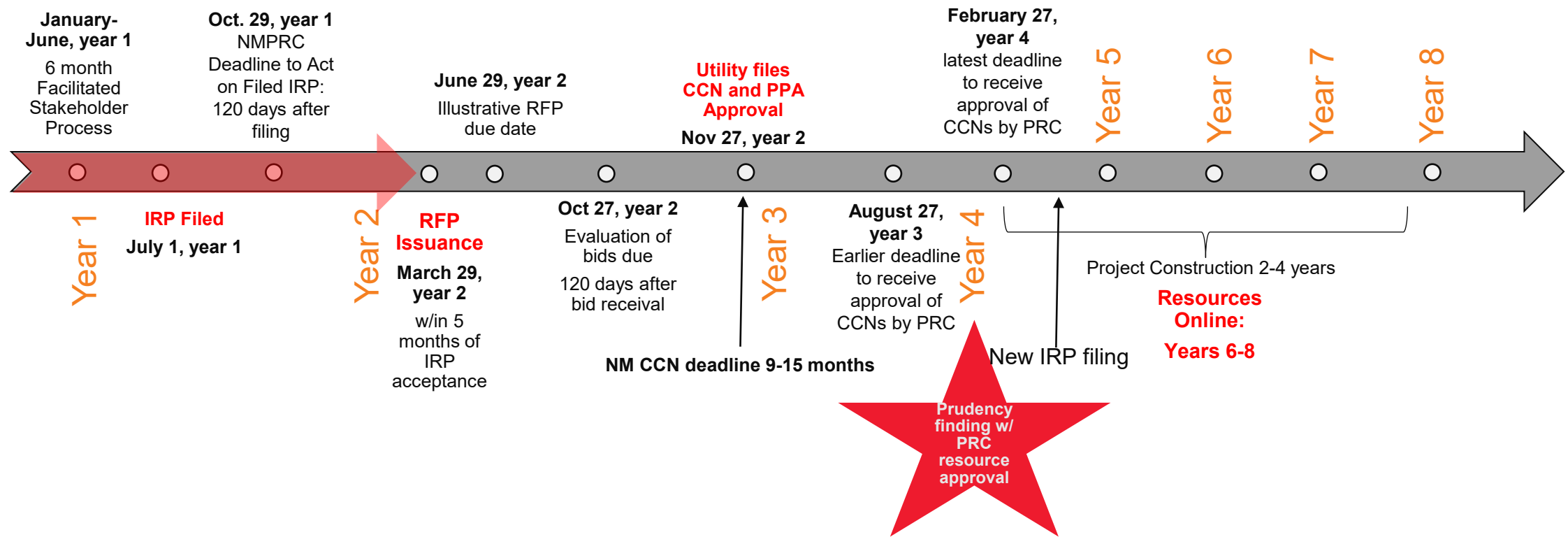
Develop and issue an RFI for long-lead time emerging dispatchable resources ahead of next IRP cycle; and

Develop RFP bid evaluation documents that include appropriate reliability and resiliency assessments.

A white hard hat with a red logo is positioned on a metal surface with a diamond plate pattern. The background is a solid white diagonal shape.

Request for Production





Resource Planning Illustrative Regulatory Process Timeline

2022 IRP Rule: Request for Proposal Process

In 2022, PRC passed a wholesale rewrite of the IRP rule, which included a process for required RFPs following IRP. That rule :

- Requires a utility to issue an RFP within 5 months of IRP acceptance for resources to fulfill the objections of the utility's IRP action plan.
- Provides a regulatory process ahead of issuing RFP which includes the appointment of an independent monitor and subsequent design report, and procedures for stakeholders to provide comments on the draft RFP.

“To address the utility's procurement need, if any, as described in the statement of need, and to fulfill the objectives of the utility's action plan, the utility shall issue a request for proposals (RFP) in the current IRP docket, within five months of the commission's acceptance of its statement of need and action plan.” NMAC 17.7.3.12

“The utility may issue additional RFPs in the current IRP docket, adhering to the processes and procedures described in 17.7.3.12 NMAC, if prudent following a material event...” NMAC 17.7.3.12

SPS New Mexico All-source RFP Filed July 22, 2024

SPS’s Accredited Capacity Need

	2027	2028	2029	2030
Summer (MWac)	770	1,596	2,880	3,007
Winter (MWac)	543	1,726	3,049	3,190

The 2024 all-source RFP is based on an updated planning forecast, directly incorporating highly probable expected new large commercial and industrial customer loads in the near term.

SPS’s accredited capacity need also reflects expected changes in the Southwest Power Pool methodology of accreditation that include Performance Based Accreditation for conventional thermal resources and Effective Load Carrying Capability of wind, solar, and energy storage resources. The values also represent changes in the Southwest Power Pool minimum required planning reserve margin from 15% to seasonal values of 16% in summer months and 36% in winter months.

SPS 2024 RFP Bid Options

RFP Project Types		
Parameter	RFP Option 1 and 2	RFP Option 3
Resource Types	All	All
Approximate MWac Target	Option 1 – To replace 1,080 Mwac (Tolk) Option 2 – To replace 521 Mwac (retiring gas)	As shown in Table 1
Minimum Size for Project Site	> 10 MWac	> 0.1 MWac
Project Structure	BT, Self-build	PPA, BT, Self-build, Combination
Timing	Option 1 - COD on or before May 1, 2029 Option 2 - COD on or before May 1, 2028 or 2029 depending on replacement site	COD before May 1, 2030
Geography	Option 1 - T1 or T2 Option 2 – N2, X4, N1, or M1	Southwest Power Pool 05-Southwest Group*
GIP DISIS	N/A	Phase 2 complete, or better if needed**

*Existing SPS long-term purchased power agreements are exempt from this requirement.

**Surplus Interconnections are exempt from this requirement.

Inclusion of DISIS Generation in RFP

2024 RFP requires greenfield generation to be through Phase 2 of the DISIS

- 2/3 of the way through the DISIS process
- Most speculative generators drop out after Phase 2 due to higher “at risk” payments to remain in queue
- Phase 2, historically, gave the realistic indicator of final costs without waiting for final study results
 - Better price certainty in submitted bids
- Does allow for more generators to bid vs only those with a GIAs

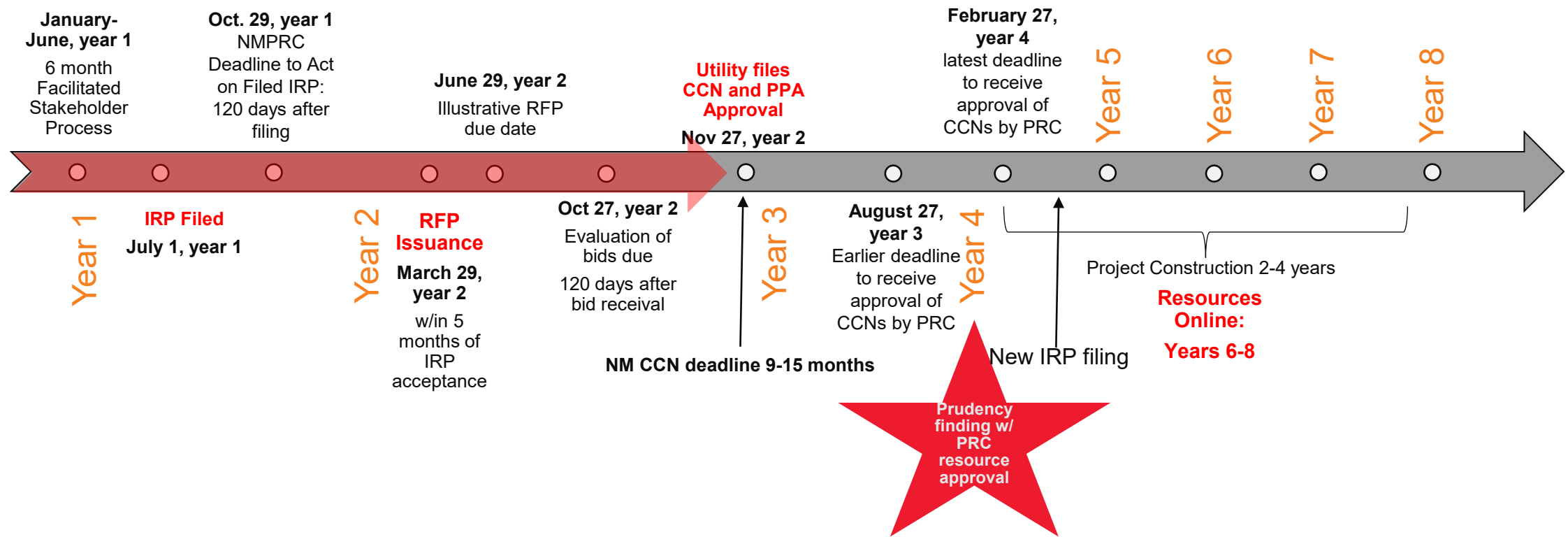
Replacement and Surplus generation is not subject to DISIS



Regulatory Authorizations

CCN, PPA, other necessary regulatory approvals





Resource Planning Illustrative Regulatory Process Timeline

Certificate of Convenience and Necessity

NMSA 1978, § 62-9-1

- “No public utility shall begin the construction or operation of any public utility plant or system or of any extension of any plant or system without first obtaining from the commission a certificate that public convenience and necessity require or will require such construction or operation.”
- Required for construction or operation of any public utility plant or system “that are used to provide retail service and the costs of which are to be included in retail rates.”
- The CCN requirement only applies to public utilities
- The Commission must issue a final order within 9 months. The Commission may extend the deadline by 6 months for good cause.



Prior Approval of Purchased Power Agreements

NMAC 17.9.551

- Public utilities may not become irrevocably obligated under a long-term PPA (term of 5 years or more) without first obtaining the commission's written approval of the agreement. Application must include:
 - A copy of the agreement with explanation of key terms
 - A description of transmission costs that the utility will incur to receive the power
 - An explanation of how the utility intends to recover from ratepayers the costs
 - Information about the generating facilities
 - Evidence that entering into the PPA is consistent with the provision of safe and reliable electric utility service at the lowest reasonable cost
 - Evidence that entering into the PPA is consistent with the utility's most recent IRP action plan
 - Evidence addressing whether the utility could have constructed an alternative to the PPA with a greater benefit to the ratepayers
 - Evidence addressing the methodology and criteria by which the PPA was selected
 - 6-month decision deadline

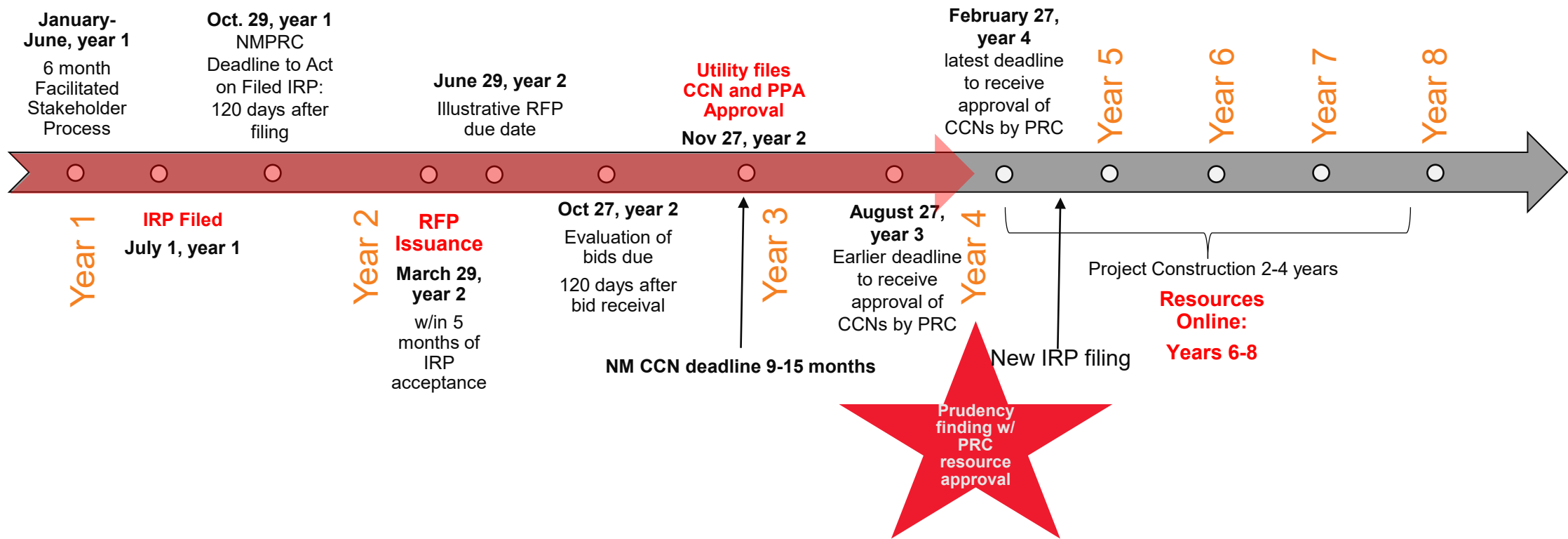


Other Regulatory Requirements: Locational Approval & ROW

Other Commission approvals necessary for many projects

- § 62-9-3: Location approval is a separate application in which the Commission conducts an environmental review for a project before approving the location of a project.
- Location approval is required for:
 - 1) any plant capable of operation at a capacity of 300,000 kilowatts (300 MW) or more for generation of electricity for sale; or
 - 2) 230kV transmission line in connection with such a plant.
- 6-month decision deadline unless filed with CCN, then it aligns with CCN deadline
- § 62-9-3.2: Any person (not exclusive of public utilities) must apply to the Commission for right-of-way approval for any transmission line right-of-way with a width over 100 feet.
- 6-month decision deadline





Resource Planning Illustrative Regulatory Process Timeline

Risks Posed by Regulatory Timelines

1. Little flexibility in process to address emergent growth/economic development opportunities is captured in IRP process
2. Statutory resource approval deadlines signal timeline risk to project developers. Keeping pricing firm is challenging.
3. For self-build and build transfer projects subject to CCN requirements, construction cannot begin until CCN approval is granted. Supply chain and workforce availability risks are amplified. Financing cost risk amplified.
4. Timeline presents challenges to keep up with dynamic load growth
5. Planning for long-lead time resources, such as small modular nuclear reactors, is very challenging with a three-year action plan. Current CCN paradigm does not contemplate provisional CCN approval to de-risk project development ahead of construction.



 **Xcel**Energy®