



Resource Planning Advisory Council

IRP Preliminary Portfolio Results Review

August 6, 2026

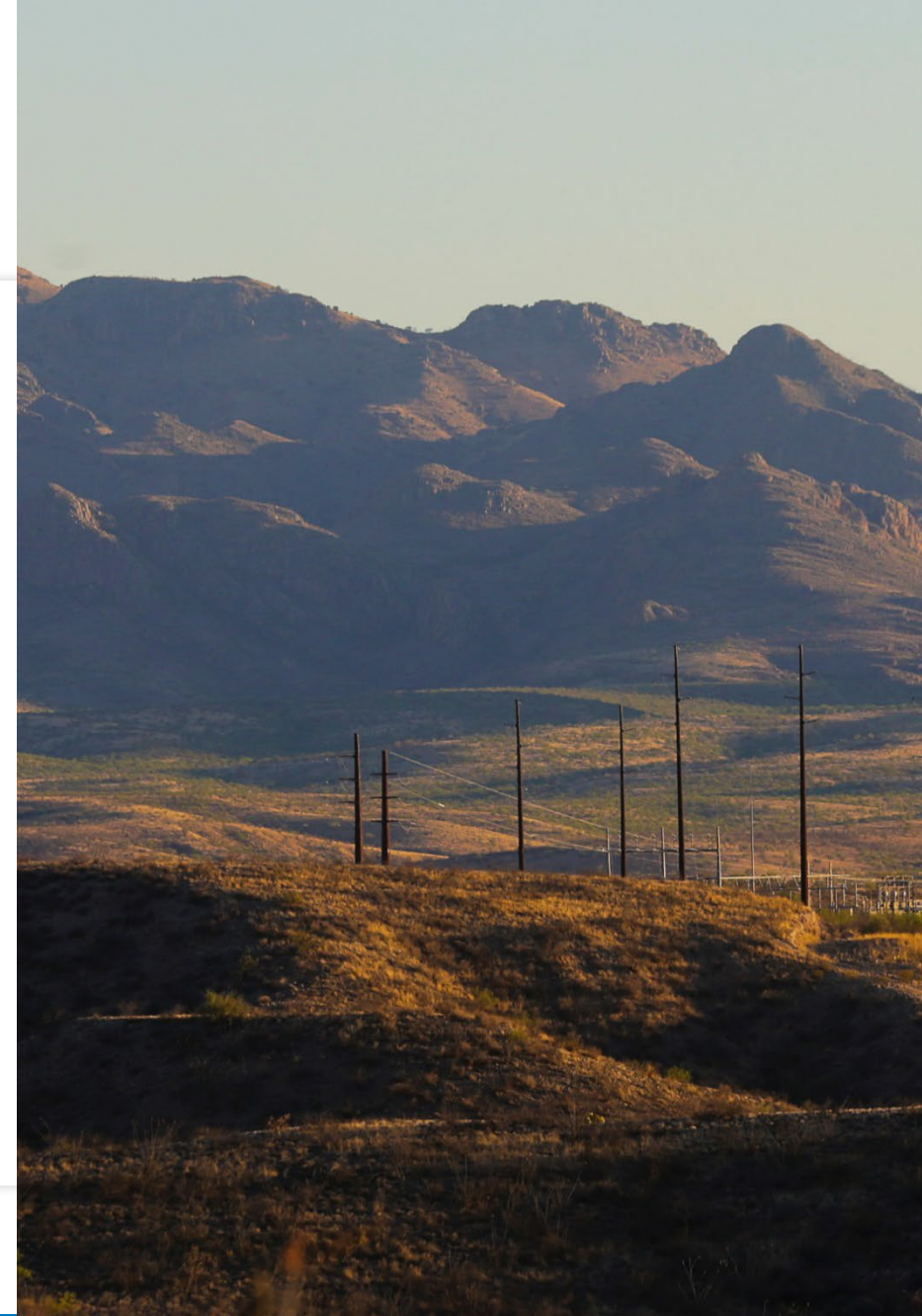
Agenda

- 1** Safety Minute/Introductions
- 2** 2026 Preliminary Portfolio Results
- 3** Looking Ahead
- 4** Wrap-Up

Safety minute & logistics

- In case of emergency, proceed down the stairs, out the doors, and gather on the lawn of the Children's Museum just to the south
- Restrooms
- Cafe

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Introductions

-Your name

-Your organization



Tucson Electric Power



Tucson Electric Power

2026 IRP Preliminary Portfolio Overview

Disclaimer

This presentation contains preliminary IRP portfolio modeling information. The modeling reflected herein remains ongoing, and portfolio results, assumptions, and conclusions may be modified prior to TEP's IRP submission to the Arizona Corporation Commission.

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Key Terms

Springerville Generating Station Repowering

- The modification of Springerville 1 and 2 units to run on natural gas

Planning Reserve Margin (PRM)

- The amount of resource capacity needed above peak load to ensure reliability

Long-term Capacity Expansion model (LTCE)

- Software that will calculate the lowest-cost resource mix to meet given criteria and constraints

Production Cost model (PCM)

- Software that will dispatch the modeled resources to meet load and calculate system costs

Effective Load Carrying Capability (ELCC)

- The amount of capacity each resource can be expected to provide to meet peak load

Sensitivity

- Modeling results from running the PCM on a different set of parameters (change in market or fuel pricing, etc)

Net Present Value Revenue Requirement (NPVRR)

- The current value of all capital, fuel, and O&M expenses in a portfolio over the 15-year timeframe

Natural Gas Combined Cycle (NGCC)

- A type of gas power plant that utilizes both gas and steam turbines to increase efficiency

2026 IRP Portfolios

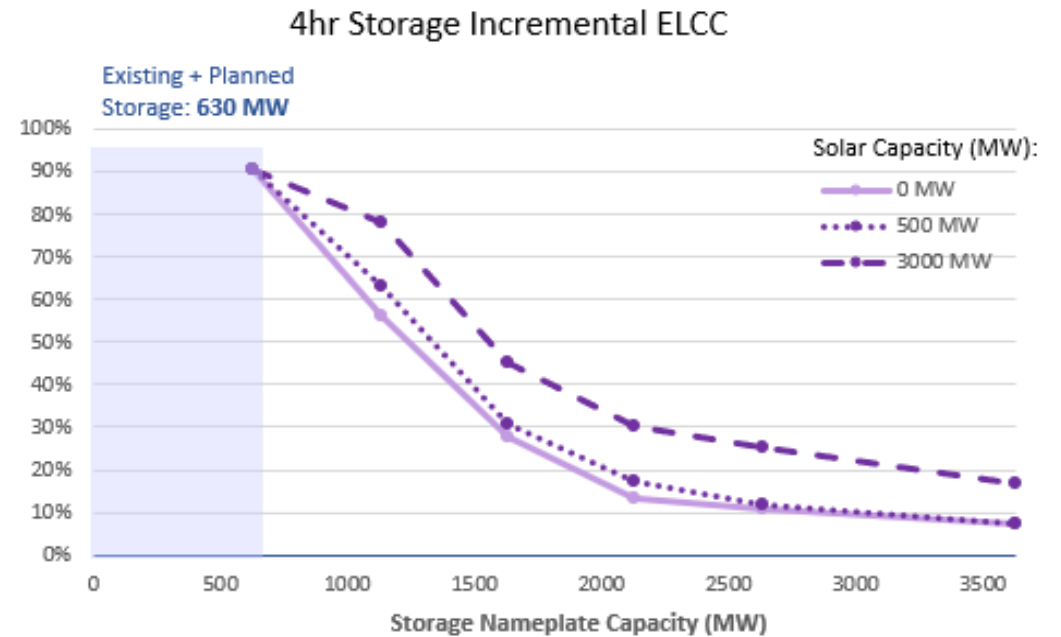
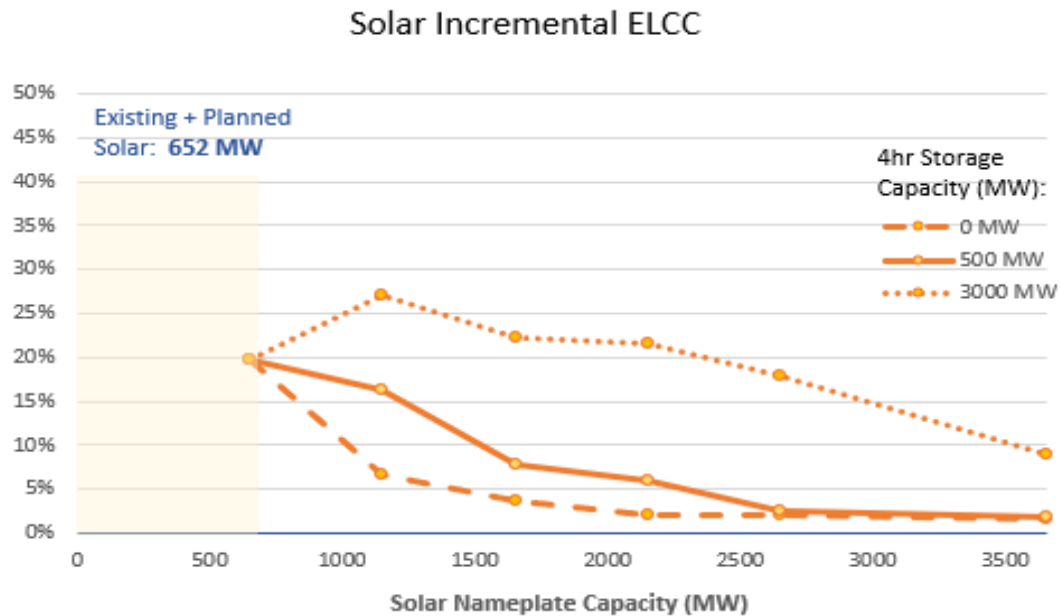
#	Name	Description
P01	Technology Neutral Base Case	A least-cost, technology neutral portfolio required by the ACC.
P02	Clean Energy Buildout	A portfolio that only allows the LTCE to chose carbon-free resources (solar, wind, storage, geothermal, pumped hydro, nuclear).
P03	High Load Factor Customer Growth	A least-cost, technology neutral portfolio that adds 550 MW of high load factor customers to the base forecast beginning in 2030.
P04	High Load Factor Customer Growth - Clean Energy Buildout	A portfolio that adds 550 MW of high load factor customers to the base forecast beginning in 2030 and only allows the LTCE to select carbon-free resources.
P05	Pumped Hydro	A least-cost portfolio that adds 100 MW of pumped hydro storage in 2033.
P06	Geothermal	A least-cost portfolio that adds 100 MW of geothermal generation in 2034. Included due to interest by the RPAC.
P07	Nuclear	A least-cost portfolio that adds 100 MW of nuclear generation in 2038.

Resource Adequacy

Two step process for ensuring resource adequacy for each portfolio

Step 1: Planning reserve margin (PRM) of at least 18% each year

- Accounts for higher-than-forecasted peak loads, operating reserves, and resource outages
- Increased from 16.5% used in prior IRP based on the updated Resource Adequacy Study
- Uses an “Effective Load Carrying Capability” (ELCC) methodology to determine the coincident peak capacity of wind, solar, and 4hr storage



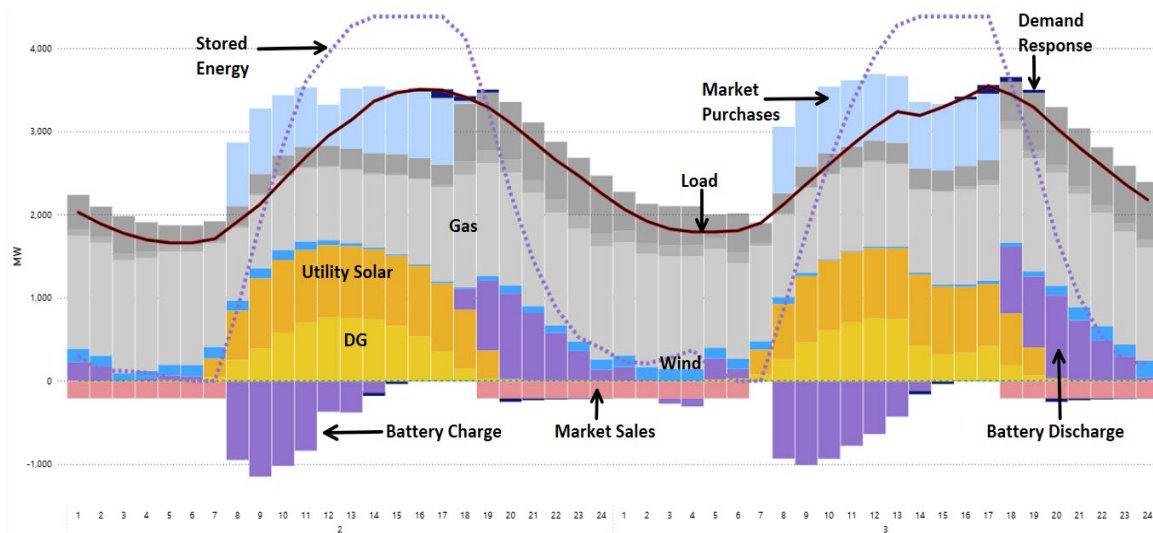
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Resource Adequacy (continued)

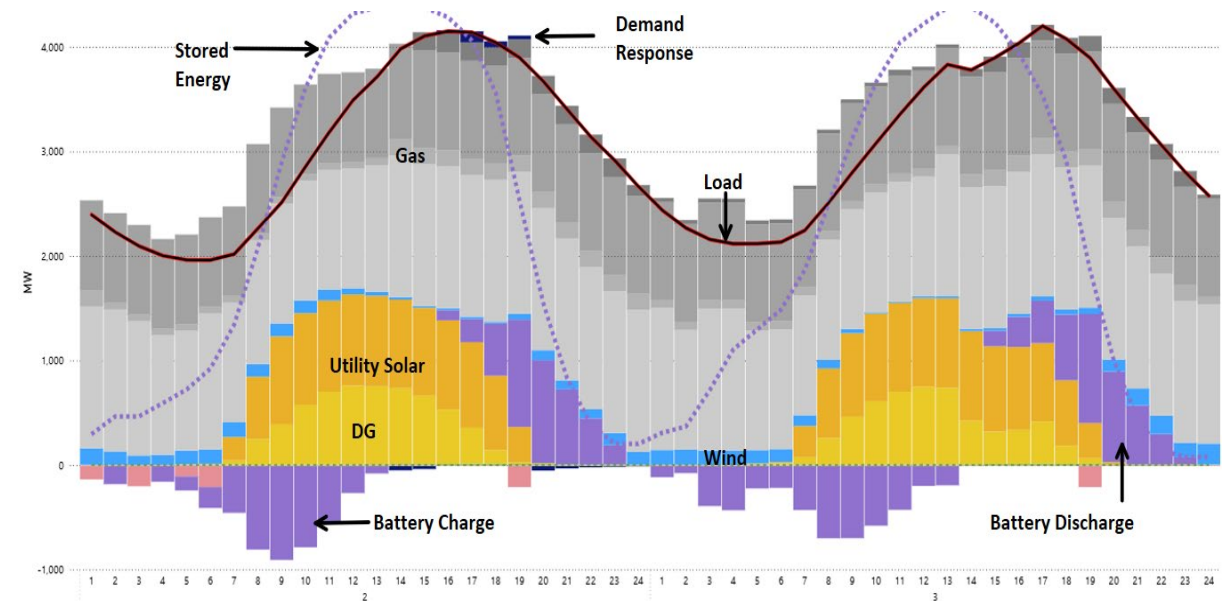
Step 2: 15-year hourly stress test

- Demand is increased 18% to reflect PRM requirement
- No market access is permitted in any hour
- Ensures no shortfall

Typical Load July 2-3, 2040

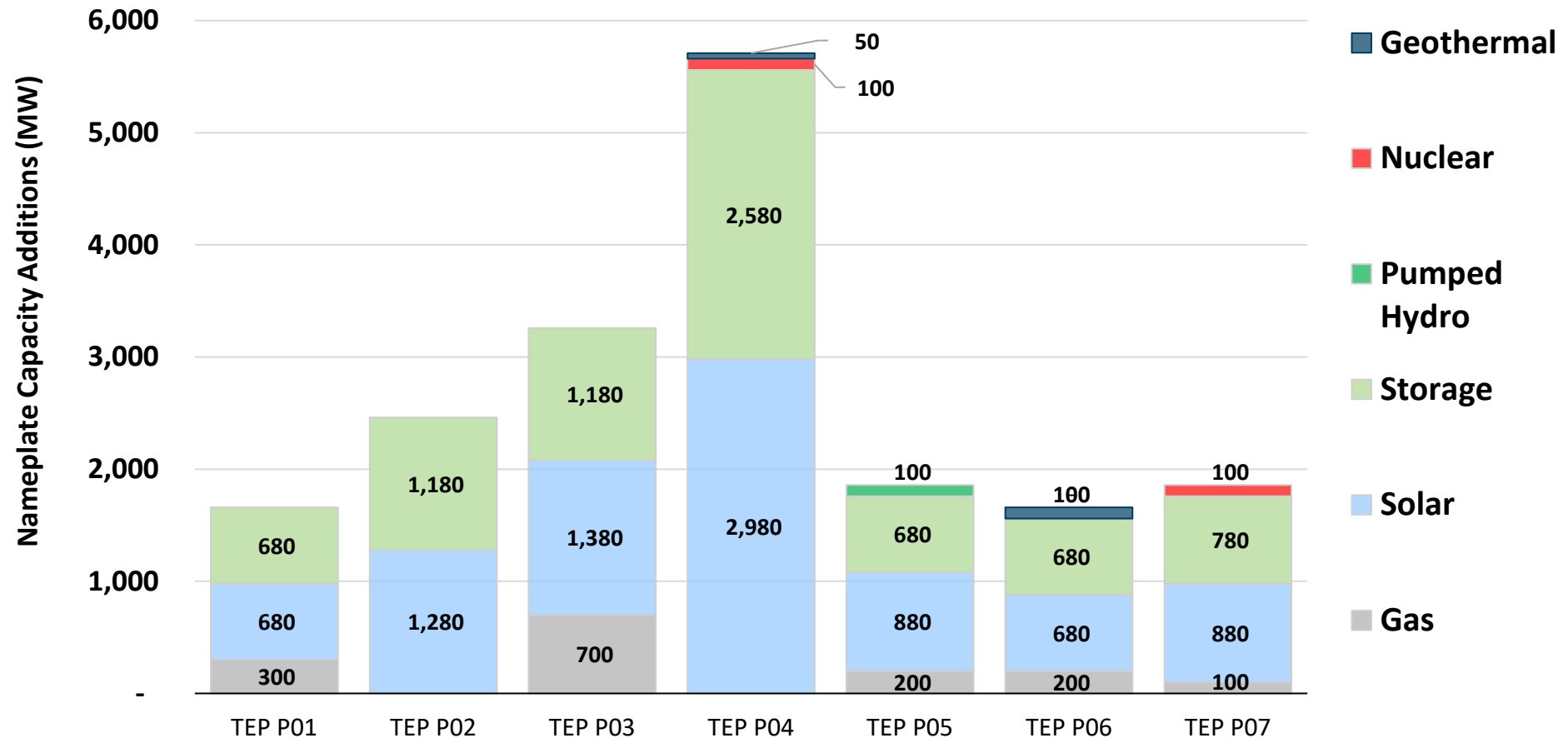


Stress Test, July 2-3, 2040



Resource Buildout Comparison

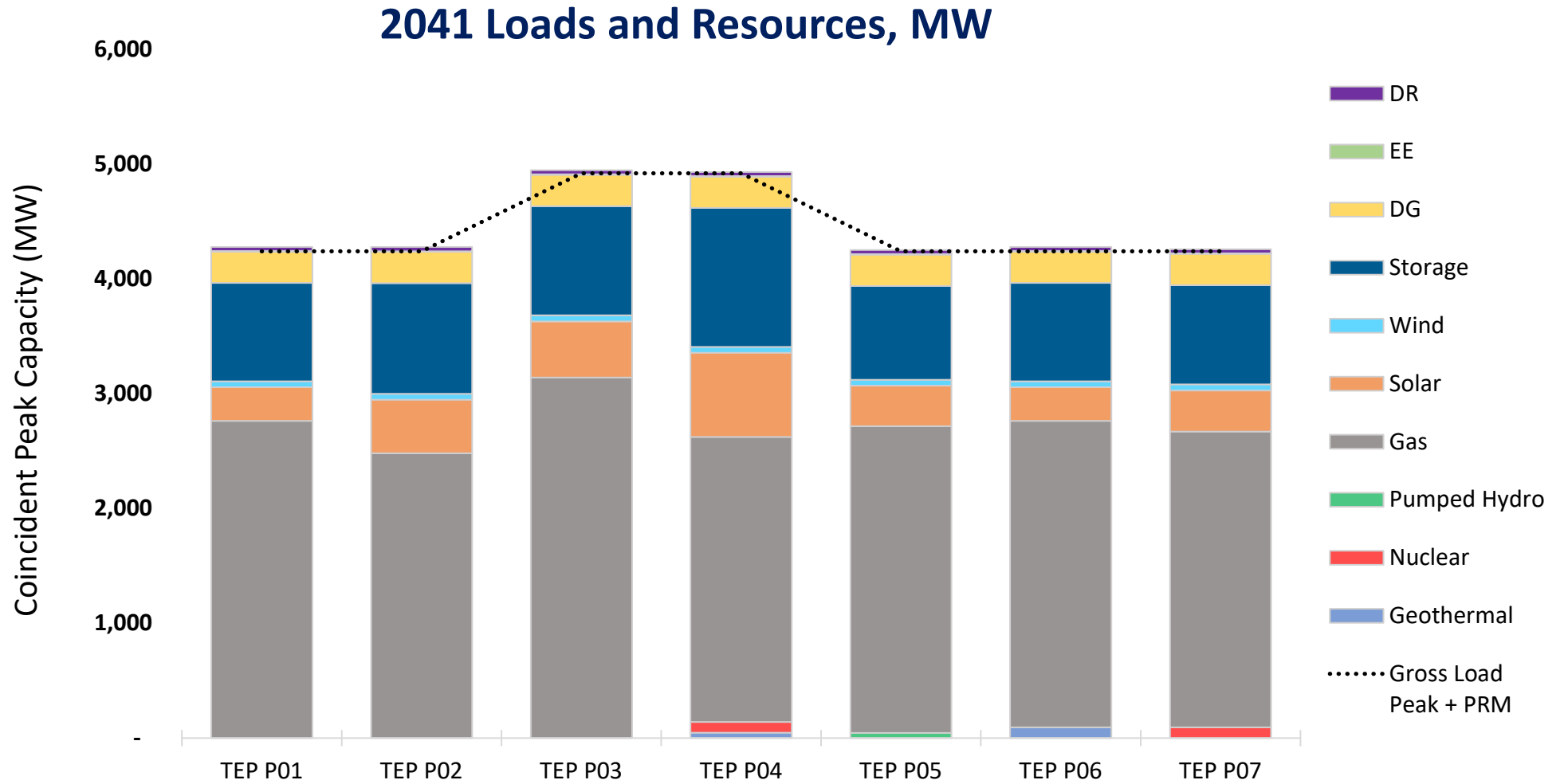
Total Resource Additions for Each Portfolio, MW



* Each portfolio includes the 730 MW Springerville Coal-to-Gas Conversion

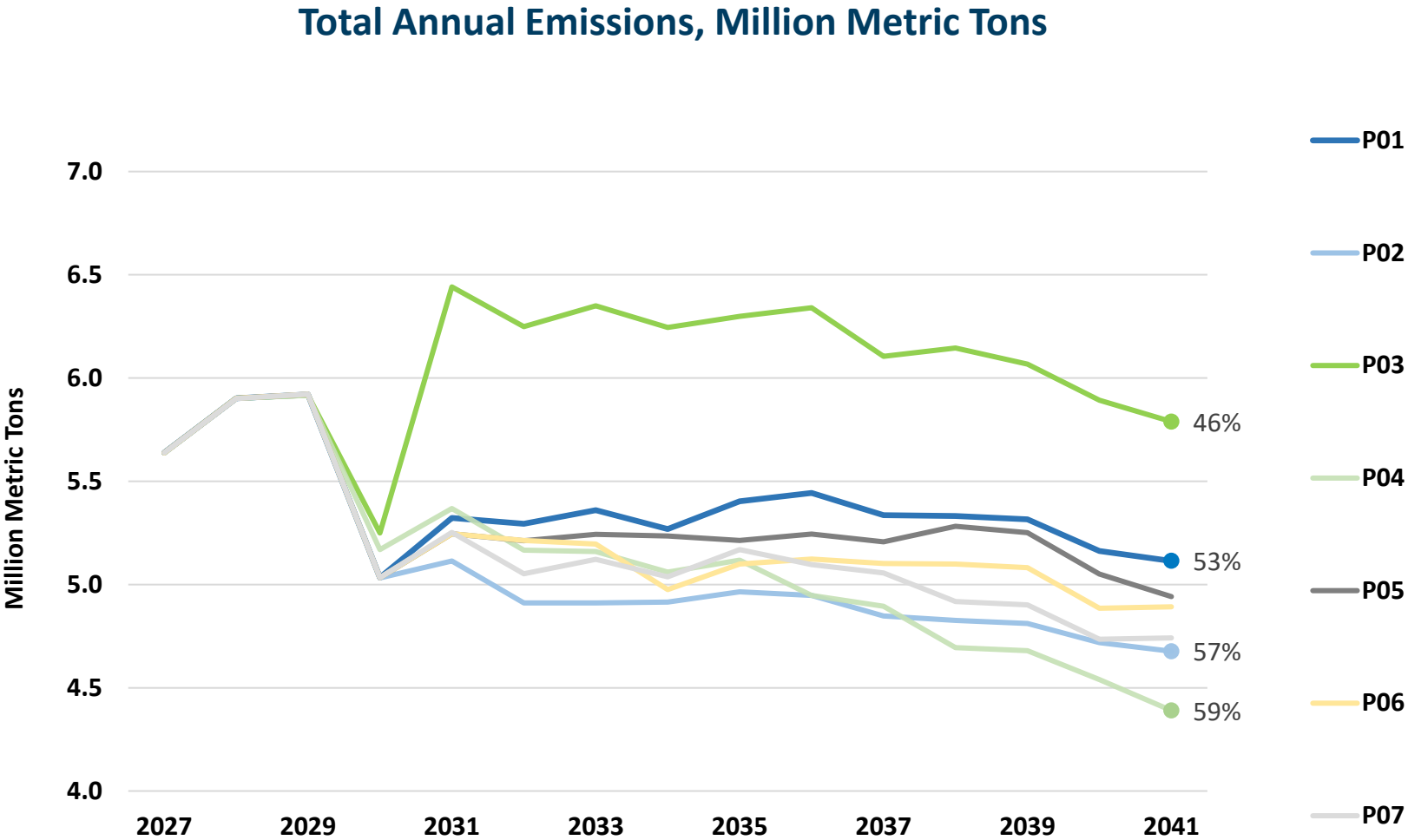
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System Reliability by Portfolio (Reserve Margins)



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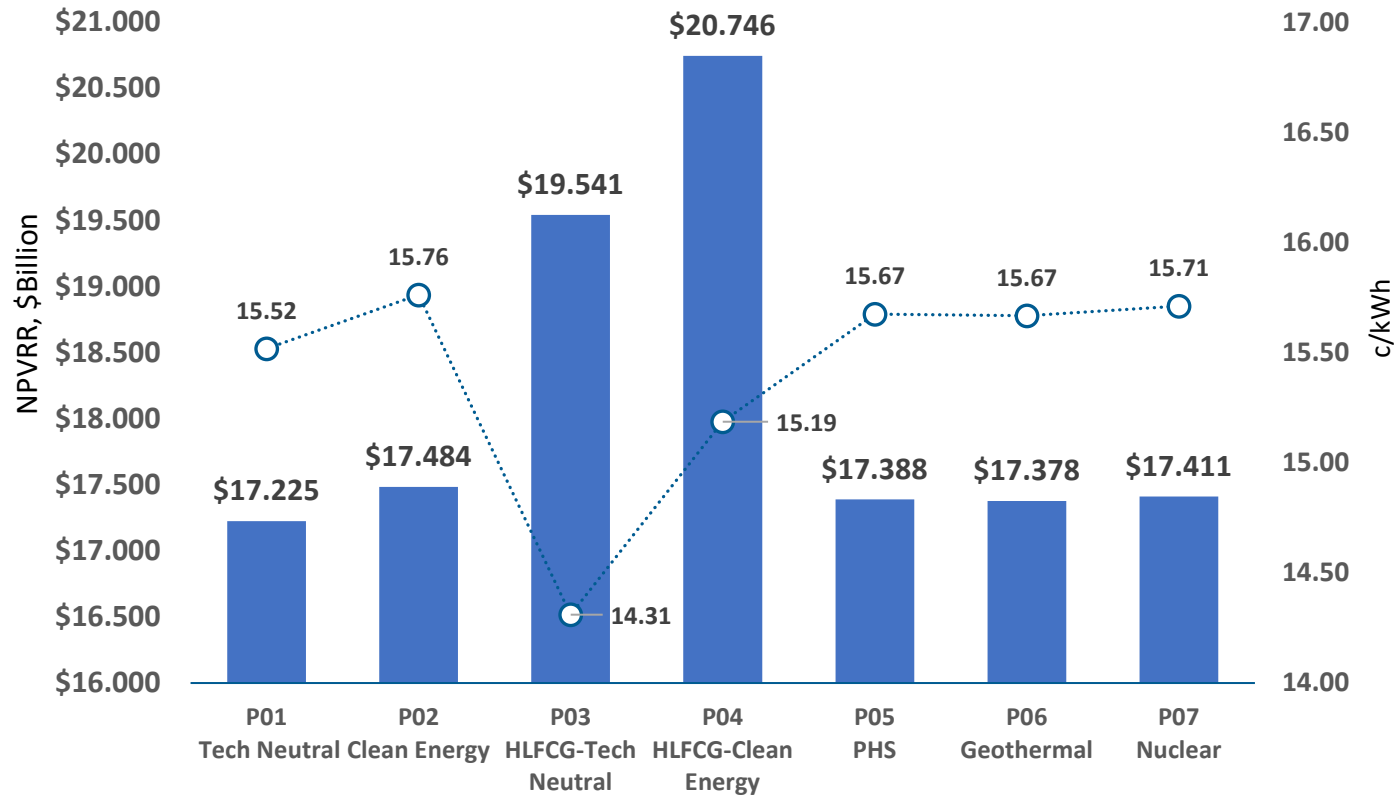
Portfolio Emission Results



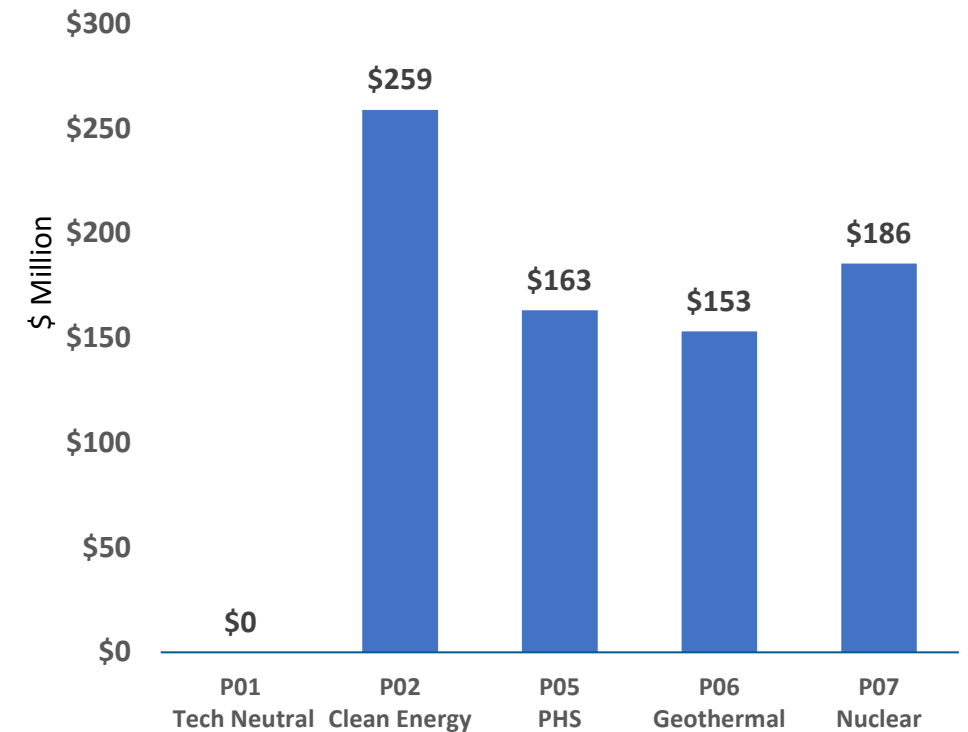
*Percentage in 2041 represents Emissions Reductions since 2019.

Net Present Value Revenue Requirements (NPVRR)

NPVRR and Average System Costs per kWh by Portfolio

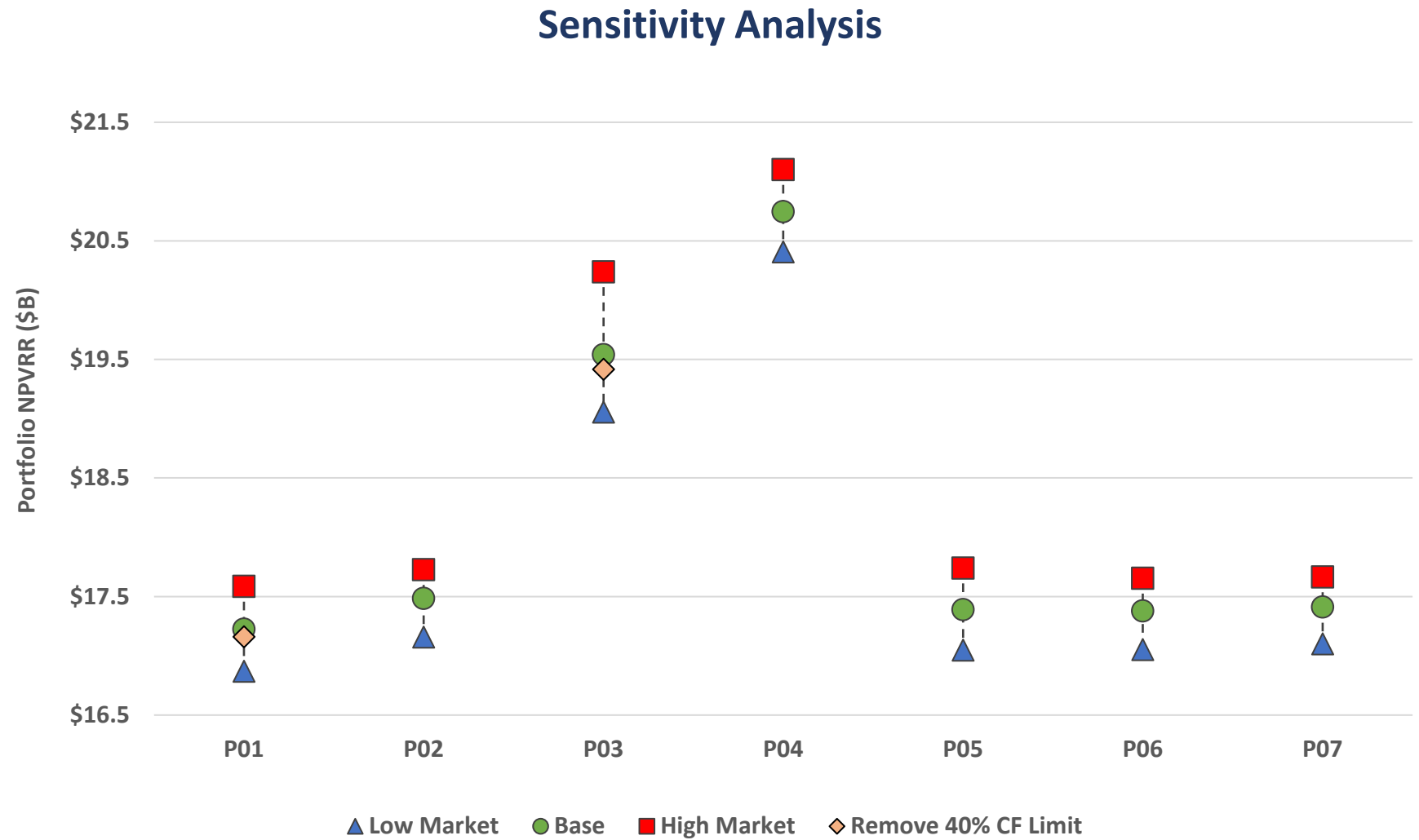


Comparison of NPVRR relative to P01 Tech Neutral Portfolio



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Portfolio NPVRR Sensitivity Analysis



TEP's Technology Neutral Base Case

Reliability

- Resource mix meets resource adequacy requirements
- New NGCC provides a base load and dispatchable resource
- New storage uses excess solar for peak dispatch

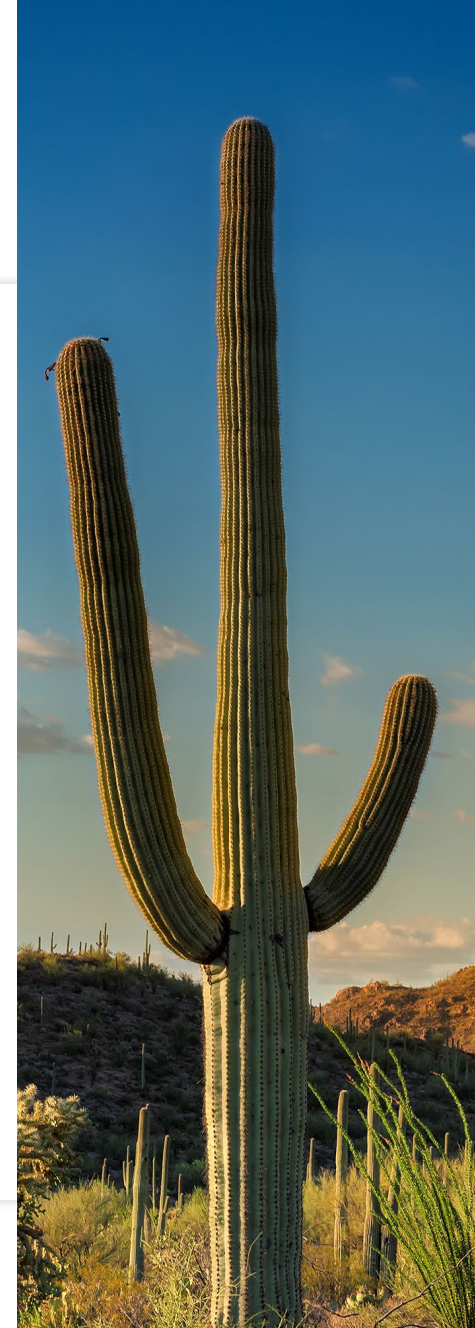
Affordability

- Resource mix represents a least-cost approach
- Exit from coal reduces long-term cost risk
- New NGCC provides a least-cost option
- Solar plus storage is projected to be cost-competitive over the long-term

Sustainability

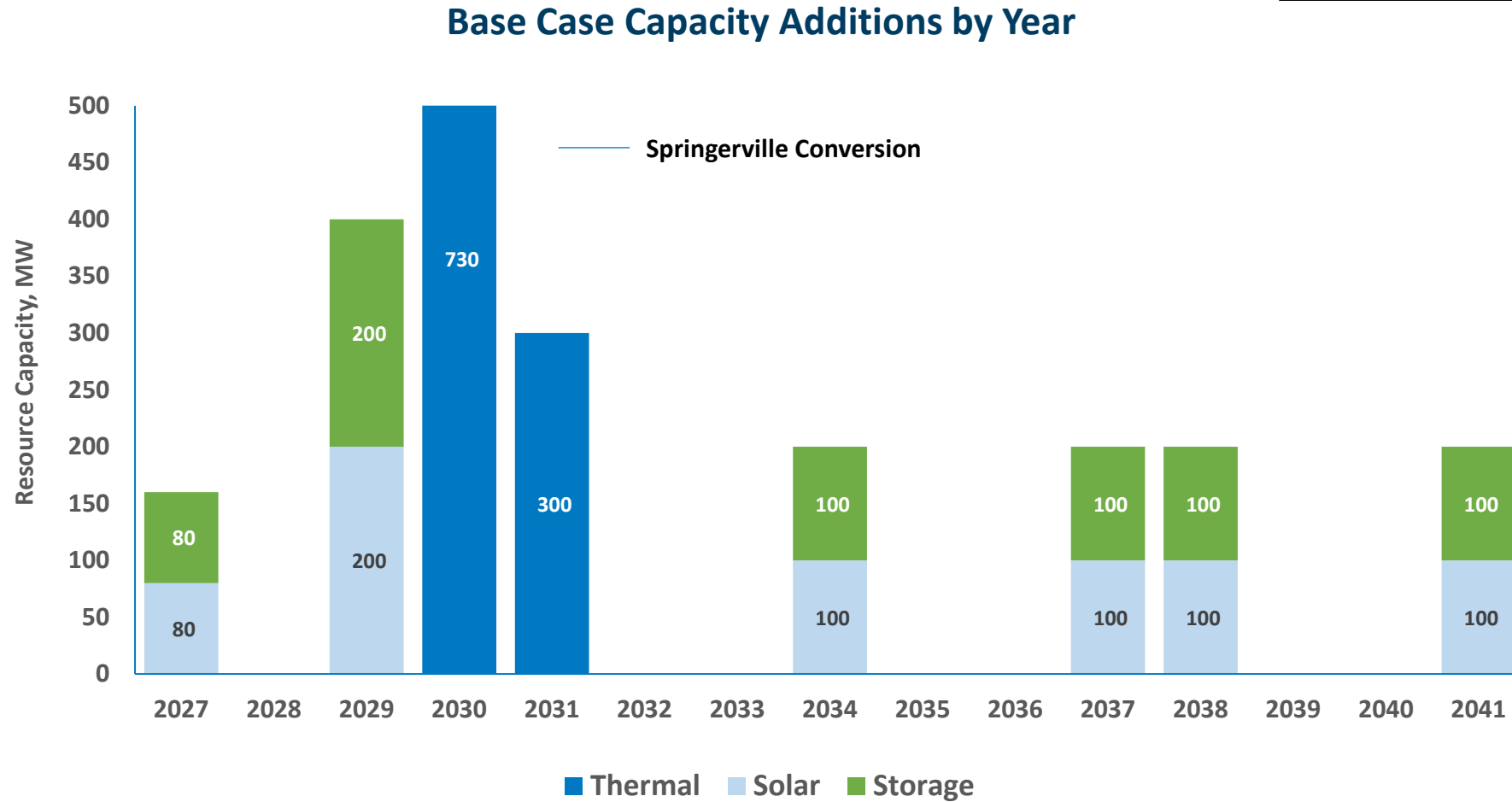
- Exit coal generation by 2032
- Solar and storage additions reduce emissions in the long-term

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Base Case Resource Build-out by Year

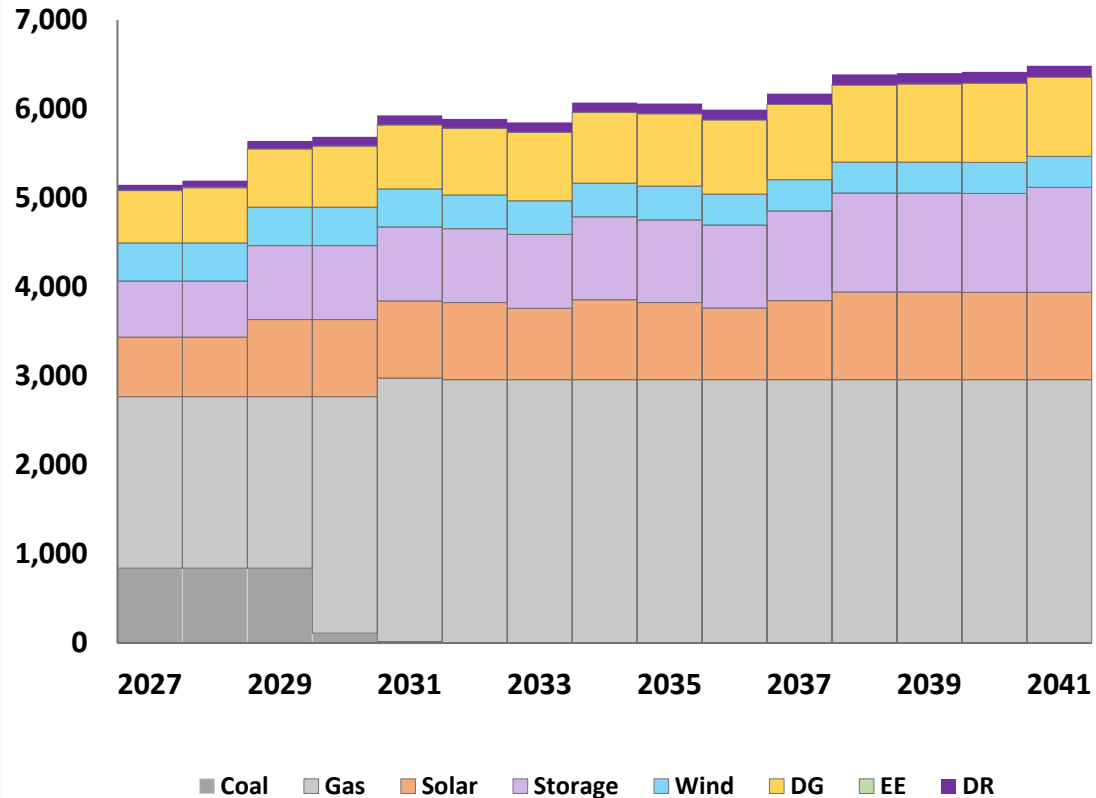
840 MW Coal Retirement by 2031



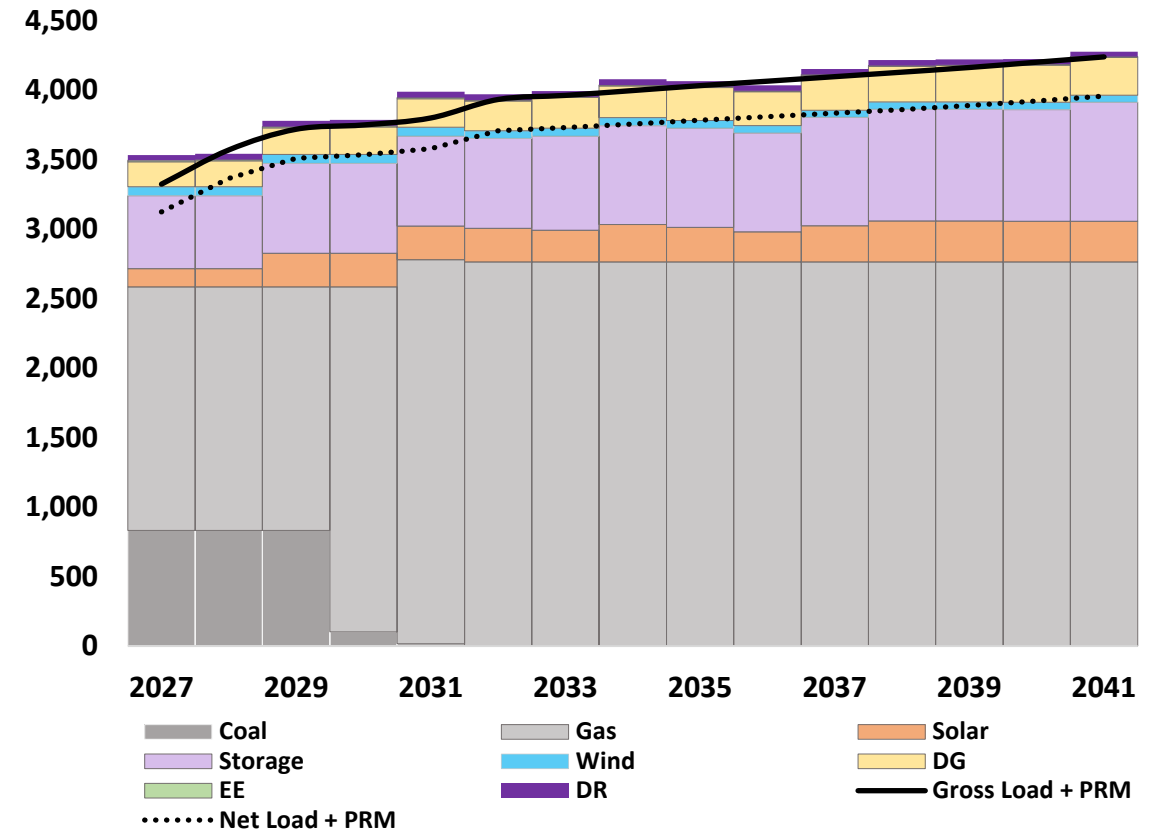
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Base Case – Future Resource Capacity

Annual Nameplate Capacity, MW



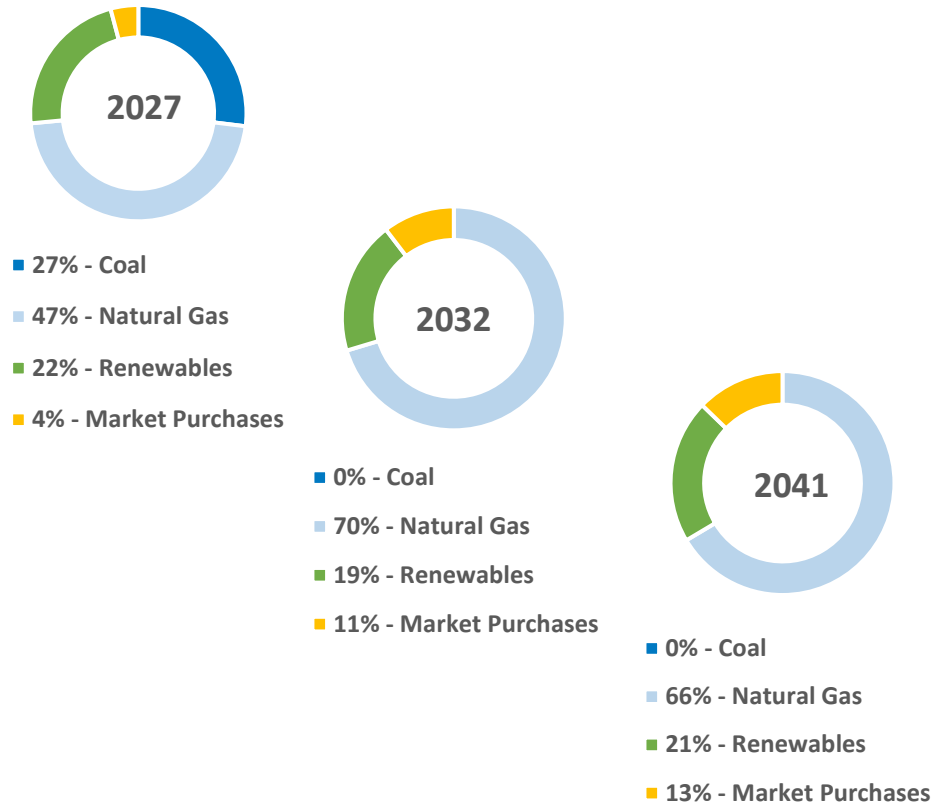
Loads & Resources, MW (Coincident Peak)



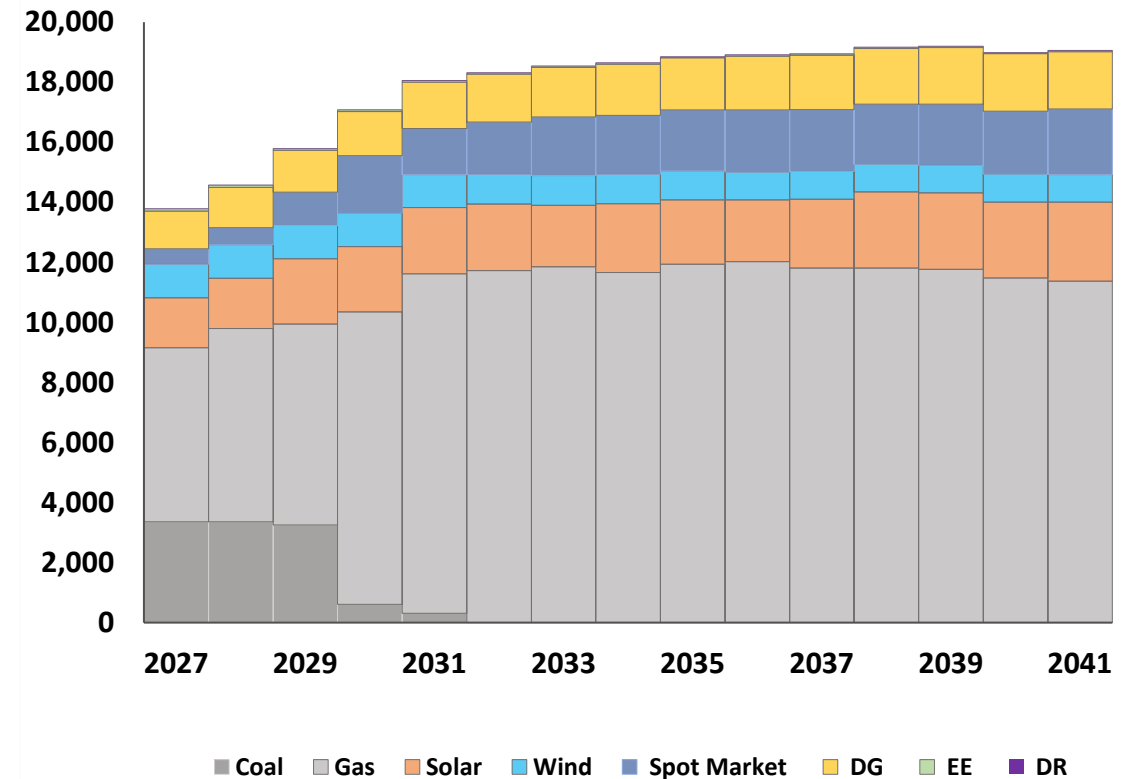
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Base Case – Future Resource Energy Mix

Energy Portfolio through 2041
% of Total MWh



Annual Energy Mix, GWh



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Looking Ahead

Future Resources

- TEP will re-evaluate resource options and needs in the future as loads, resource adequacy parameters, resource costs, and development timelines evolve
- New resources will be pursued through future ASRFPs



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Looking ahead

- The ACC has approved APS' request for a 90-day extension.

IRP Process Step	New Approved Deadline
IRP submission	October 30, 2026
Stakeholder comments due	February 10, 2027
Response to stakeholder comments	June 10, 2027
Staff Assessment and proposed order	September 13, 2027

- See tep.com/rpac for links to the ACC's IRP docket
- See azcc.gov > Meetings & Cases > Make a Public Comment in a Docket if you would like to file stakeholder comments

TEP & UNSE Public Meeting (virtual) – October 2026

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A dramatic sunset or sunrise scene with a utility pole in the foreground and mountains in the background. The sky is filled with orange and yellow clouds, and the sun is low on the horizon. The utility pole is a dark silhouette against the bright sky. In the background, there are silhouettes of mountains and another power line tower.

**Thank you for participating in the
2026 TEP RPAC!**