



Santee Cooper Resource Planning

Stakeholder Working Group Update Meeting #8

September 10, 2025



Welcome and Agenda

Stewart Ramsay, Facilitator, VANRY Associates

Meeting Agenda



3:30 – 3:40	Welcome and Agenda	Stewart Ramsay, VANRY
3:40 – 4:00	Updated Strategy and Assumptions	Clay Settle
4:00 – 4:15	2025 IRP Update	Clay Settle
4:15 – 4:30	Winyah CECPCN	Clay Settle
4:30 – 4:50	Questions and Discussion	Clay Settle
4:50 – 5:00	Meeting Closeout	Stewart Ramsay, VANRY



Review 2025 IRP Updated Strategy & Assumptions

Clay Settle, Senior Manager Resource Planning

Bob Davis, Executive Consultant, nFront

Modeling Strategy Summary

2025 IRP Update

Update the Commission about how recent changes in market conditions and modeling assumptions affect the Preferred Portfolio recommended through the 2023 IRP

Portfolios

- 2023 IRP Preferred Portfolio (updated for new market conditions and assumptions)
- Optimized Portfolio (derived under new market conditions and assumptions)
- Green House Gas (GHG) Portfolio (meeting requirements of the EPA GHG Rule at the time of modeling)
- Additional Portfolios as needed to assess portfolio risk and benefits

Reference Case (EPA GHG Case Pathway 1)

A business-as-usual case that assumes the EPA's recent GHG regulation is stayed

- Retire Winyah by 2032
- Retire MB and HH Combustion Turbines (CTs) by 2034

2024 GHG Case

Assume EPA's recent GHG Rule is implemented as currently filed

- Retire Winyah and MB and HH consistent with Reference Case
- Retire Cross by 2032
- Limit new Combined Cycles and H-class CTs to 40% Capacity Factor (CF)
- Limit other new CTs to 20% CF

2025 GHG Case

Assume EPA's GHG partial repeal (alternative path)

- Retire Winyah by 2032
- Retire MB and HH Combustion Turbines (CTs) by 2034
- Limit new H-class CTs to 40% Capacity Factor (CF)
- Limit other new CTs to 20% CF

Sensitivity Analyses

- Load Forecast
- Fuel Prices
- Thermal Resource Capital Cost

2025 Draft EPA Greenhouse Gas Rule

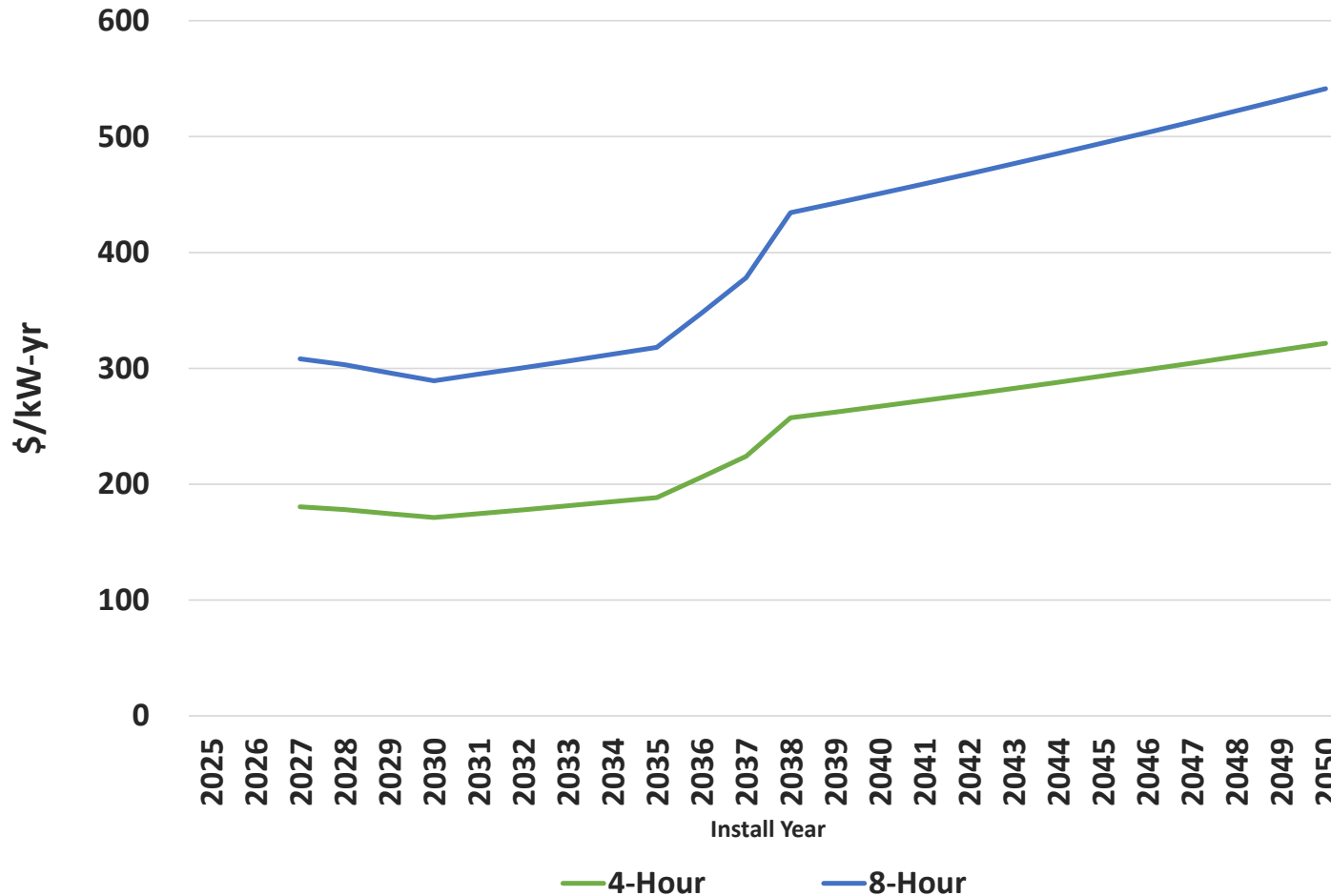


- Draft Rule Recorded in the Federal Register on June 17, 2025
- Draft Rule proposes two pathways to repeal the 2024 GHG rules:
 - Pathway 1 Full Repeal
 - Full repeal on revocation of the “endangerment finding” of CO₂ for fossil fuel plants (would result in an effective repeal of the 2024 GHG Rule)
 - Pathway 2 Partial Repeal (alternative pathway)
 - Control technology carbon capture and sequestration (CCS) cannot be considered Best System of Emission Reduction
 - Remove CO₂ emission standards for existing coal fired steam-generating units
 - Remove CCS requirements for new natural gas plants
 - Retain emission limits of new natural gas plants
 - Low Load <20% CF low-emitting fuels
 - Intermediate Load 20%< CF <40% NGCT
 - Base Load >40% CF NGCC

One Big Beautiful Bill Implications

- Santee Cooper evaluated the potential impact of the new One Big Beautiful Bill Act, signed into law on July 4, 2025
- The bill accelerates the elimination of IRA tax incentives for solar and wind resources, and phases out tax incentives for battery storage in the mid-2030s
- 2025 IRP Annual Update will reflect the changes in IRA tax incentives as base assumptions
 - Solar and wind cost assumptions will assume the No ITC cost projection case presented in Stakeholder Working Group Meeting 7
 - BESS cost assumptions will assume the updated cost projections provided on the next slide

BESS Cost Assumptions Updated



- Projections Reflect PPA Pricing
 - Base year capital costs from S&L
 - Capital and FOM cost trends from 2024 ATB Conservative Case
 - Representative finance assumptions
 - 20-year service life
- Cost Projections Reflect the Phase-out of Tax Credits over 2035-2037
- Projections approximately 40% higher than 2024 IRP Update



Fuel Price Forecast

Comparison of 2025 IRP Update to 2024 IRP Update

Major Factors Affecting the Fuel Price Forecast 2025 IRP Update vs 2024 IRP Update

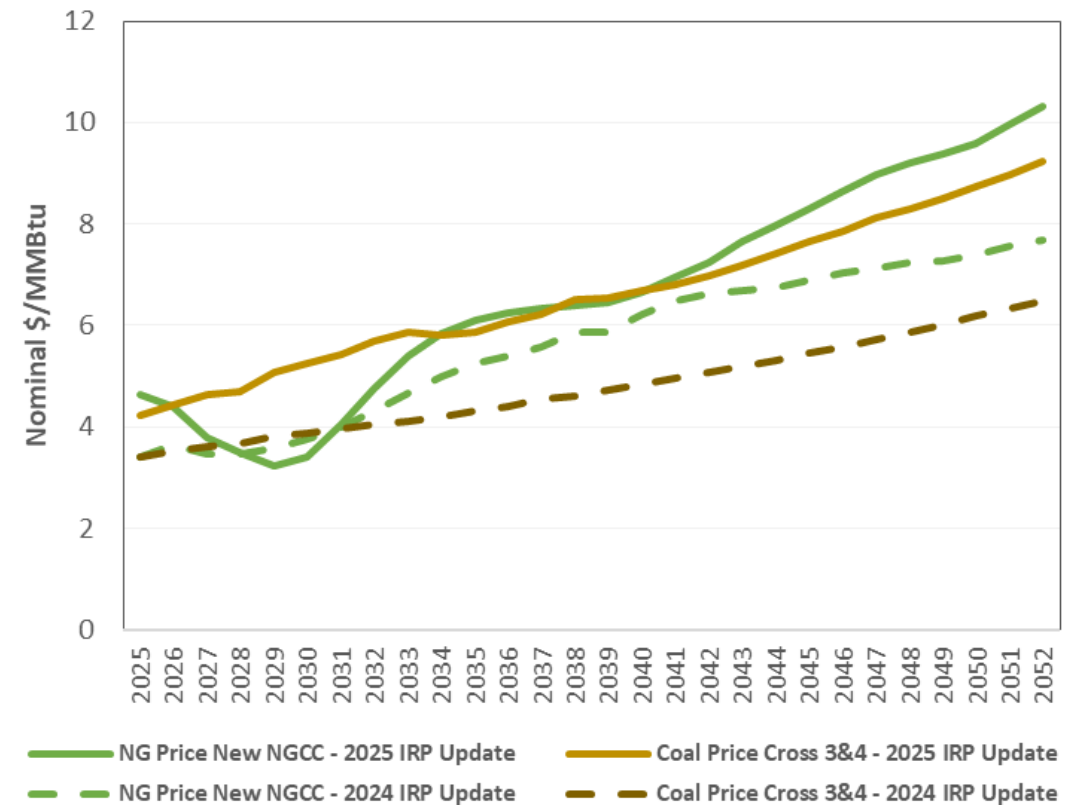


During the prior stakeholder meeting, a question was asked about major changes to the fuel price forecast (as compared to the 2024 IRP Update). The following is a summary.

Major changes from the 2024 to the 2025 IRP Update

- 2025 IRP relies on the EIA 2025 AEO fuel price forecast. 2024 IRP relies on the 2023 AEO.
- General inflation rate was assumed to be 2.6% for the 2025 IRP, vs 2.3% for the 2024 IRP.
- Nominal delivered NG prices are 17% higher on average over the Study Period
 - Henry Hub prices are projected to be similar to the 2024 IRP through the early 2030s (NYMEX prices are used for the initial few years of the forecast)
 - Henry Hub prices are forecast by the AEO to be slightly higher (10%) from the early 2030s to early 2040s
 - Henry Hub prices are forecast by the AEO to be significantly higher from the early 2040s through 2050 (23%)
 - Pipeline delivery charges are projected to be 2% higher (2024\$)
- Nominal delivered coal prices are 38% higher on average over the Study Period
 - Eastern basin coal prices are forecast in the AEO to be approximately 48% higher (2024\$)
 - Rail delivery charges are projected to be 7% higher (2024\$), driven by higher forecast diesel fuel prices

Comparison of Delivered Fuel Price Forecast
Nominal \$/MMBtu





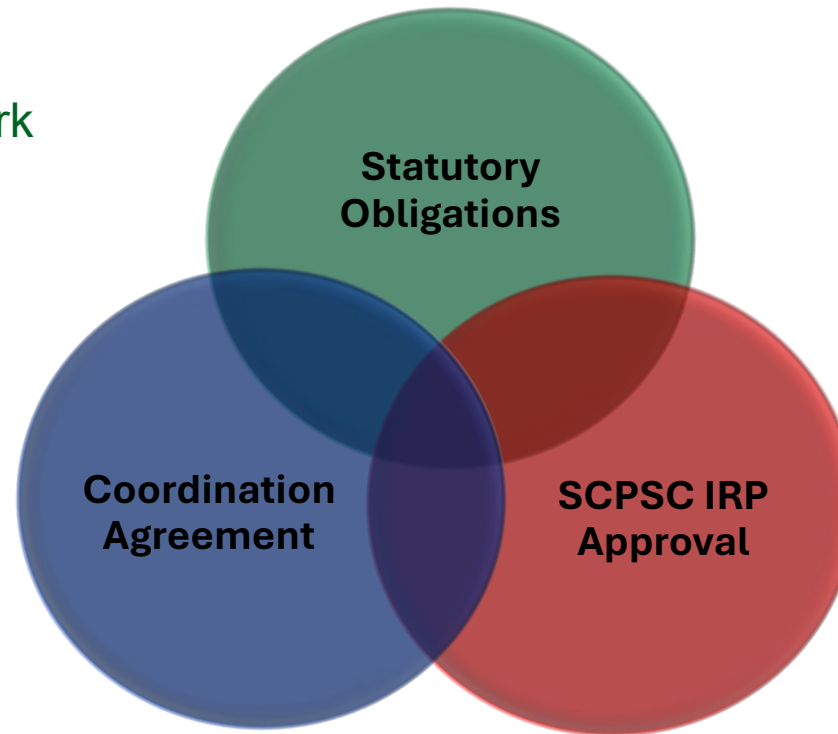
Review 2025 IRP Update

Clay Settle, Senior Manager Resource Planning

Planning Obligations

Coordination Agreement:

- Joint planning framework
- Load Forecast, Generation Expansion Plan (GEP), Resource Commitment Process

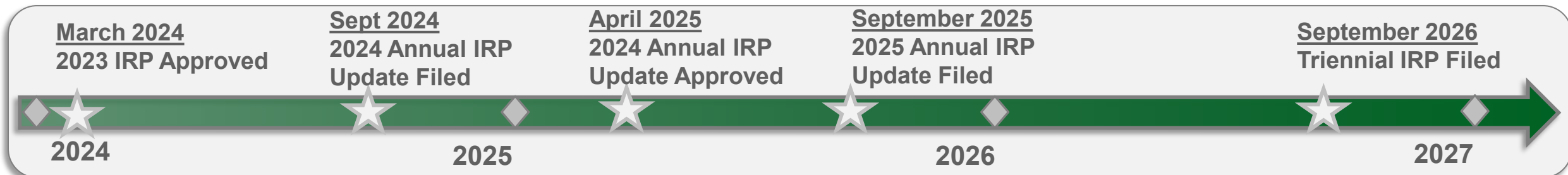


Statutory Requirements:

File Integrated Resource Plan (IRP) every three years with annual updates, to PSC for approval

IRP annual update requirements:

- Update base planning assumptions relative to its most recently accepted IRP
- Describe the impact of the updated base planning assumptions on the selected resource plan



Recent Milestones

- The Public Service Commission approved Santee Cooper's 2024 IRP Update in April 2025
- On May 21, Santee Cooper and Central Joint Planning Committee (JPC) unanimously adopted an updated combined system load forecast
 - Continues to identify a significant increase in load growth initially identified in 2024
- On July 31, the JPC unanimously approved a Generation Expansion Plan (GEP)
- Santee Cooper is preparing to file its 2025 IRP annual update in September
 - Meet statutory requirements and comply with the PSC's orders approving the 2023 IRP and 2024 IRP Update
 - Engaged stakeholders

Key Conclusions

- The key resource decisions are consistent with the portfolios identified in the 2023 IRP and 2024 IRP Update
 - Natural Gas Combined Cycle (NGCC) at Canadys (joint build with Dominion) is an economic resource decision
 - Combustion Turbines (CTs) and Battery Energy Storage Systems (BESS), sized to meet system peaking needs
 - Solar additions as economic
- Recent policy changes in Environmental Protection Agency (EPA) Greenhouse Gas regulations and One Big Beautiful Bill (OBBB) appropriately incorporated
 - No impact on key near-term resource decisions

Resources Additions

Key resource additions to meet projected load growth

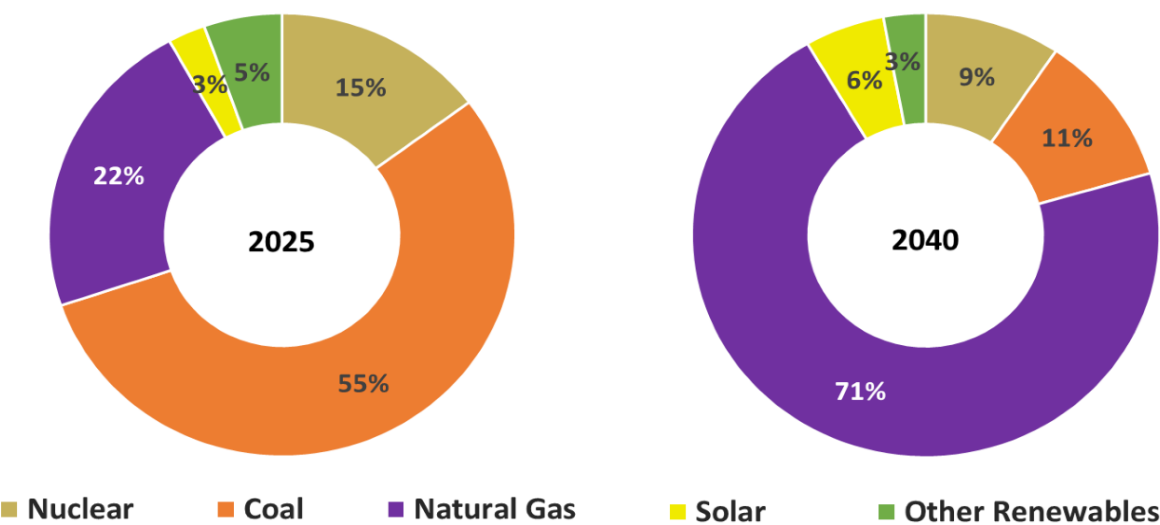
Resource	Winter	COD (winter of)	Comments
Joint Build Natural Gas Combined Cycle (NGCC)	998 MW	2032-2033	50% share of a proposed resource being developed jointly with DESC at Canadys
Combustion Turbines (LM6000s)	107 MW	2028	Two units at Winyah
Battery Energy Storage System (BESS)	~ 300 MW	2027-2029	150 MW at Jefferies; 150 MW Central's Blue Bell projects
Additional NGCC/CT Resources	Greater than 1,200 MW	2035 or later	Evaluate NGCC, LMs, CTs and PPAs
Solar	Future solar solicitations as economic to the system in coordination with Central		

Resource Portfolio Impact

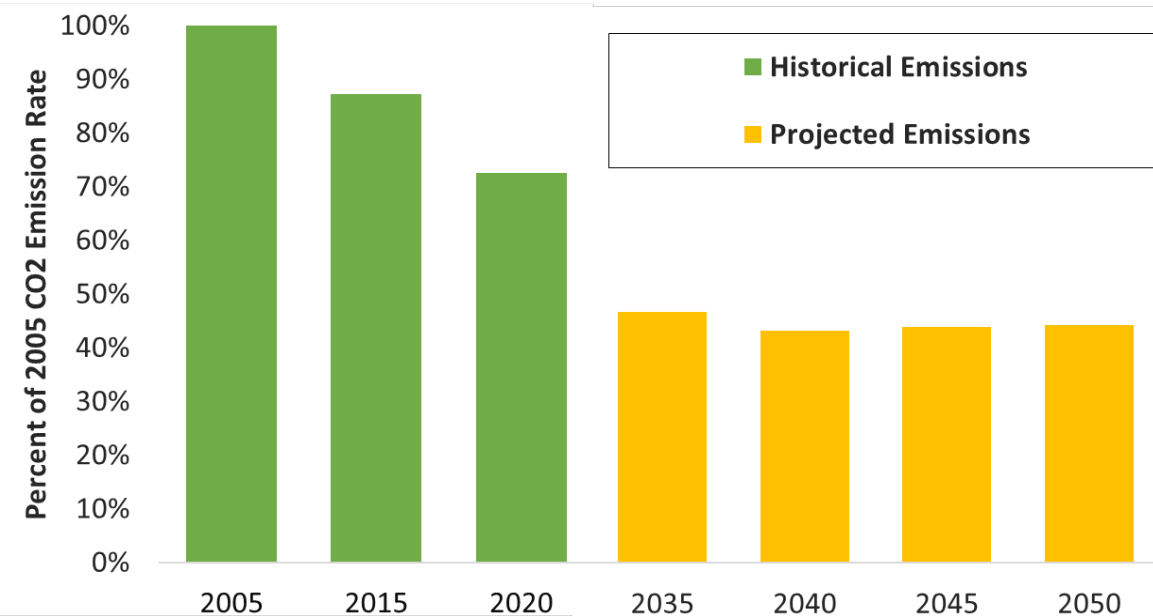
Enhanced reliability through addition of new dispatchable resources

Reduced coal reliance
Addition of flexible peaking through CTs and BESS
New efficient NGCC

Generation by Resource Type (GWh, Energy)



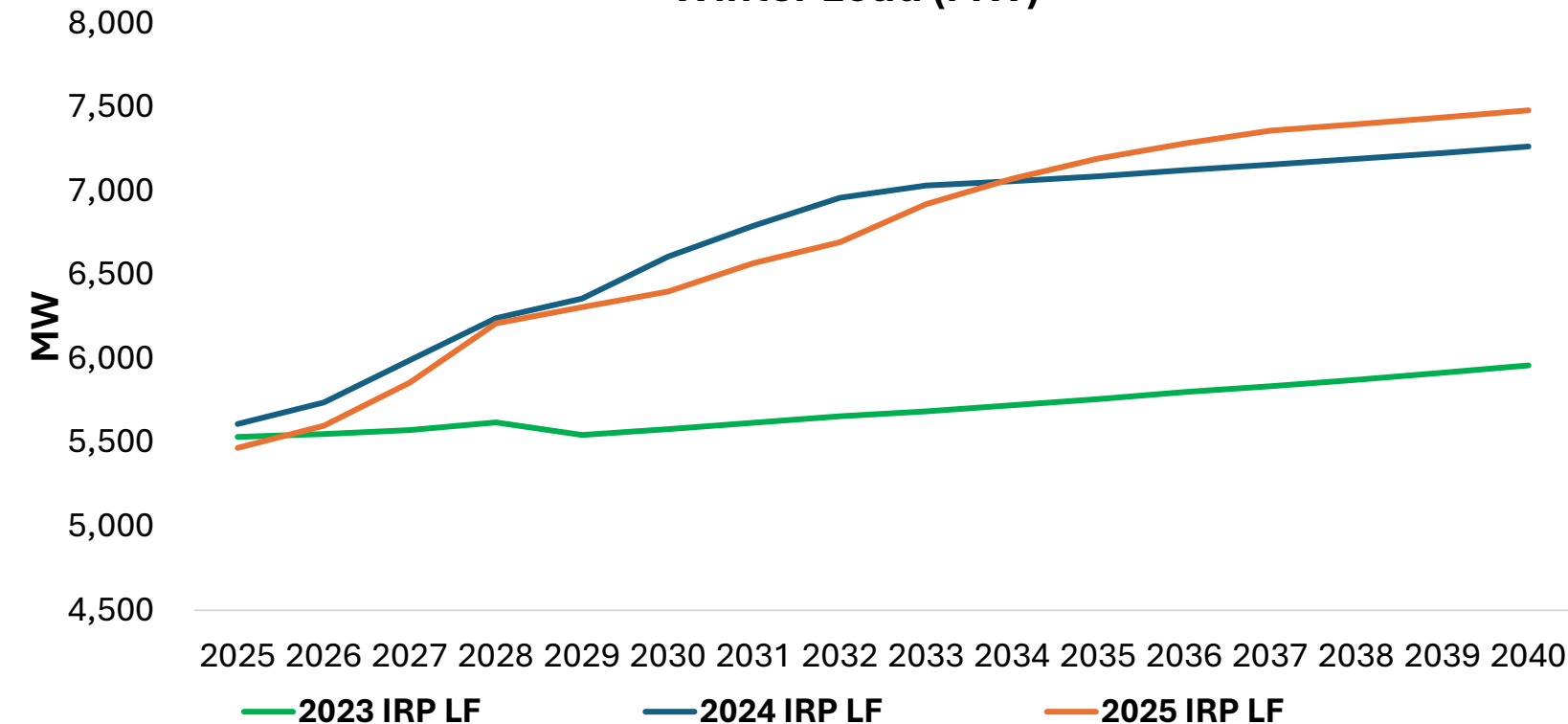
Projected CO₂ Emissions Rate as Percentage of 2005 Rate



System Load Forecast

Jointly developed with Central and unanimously approved by the Joint Planning Committee on May 21, 2025

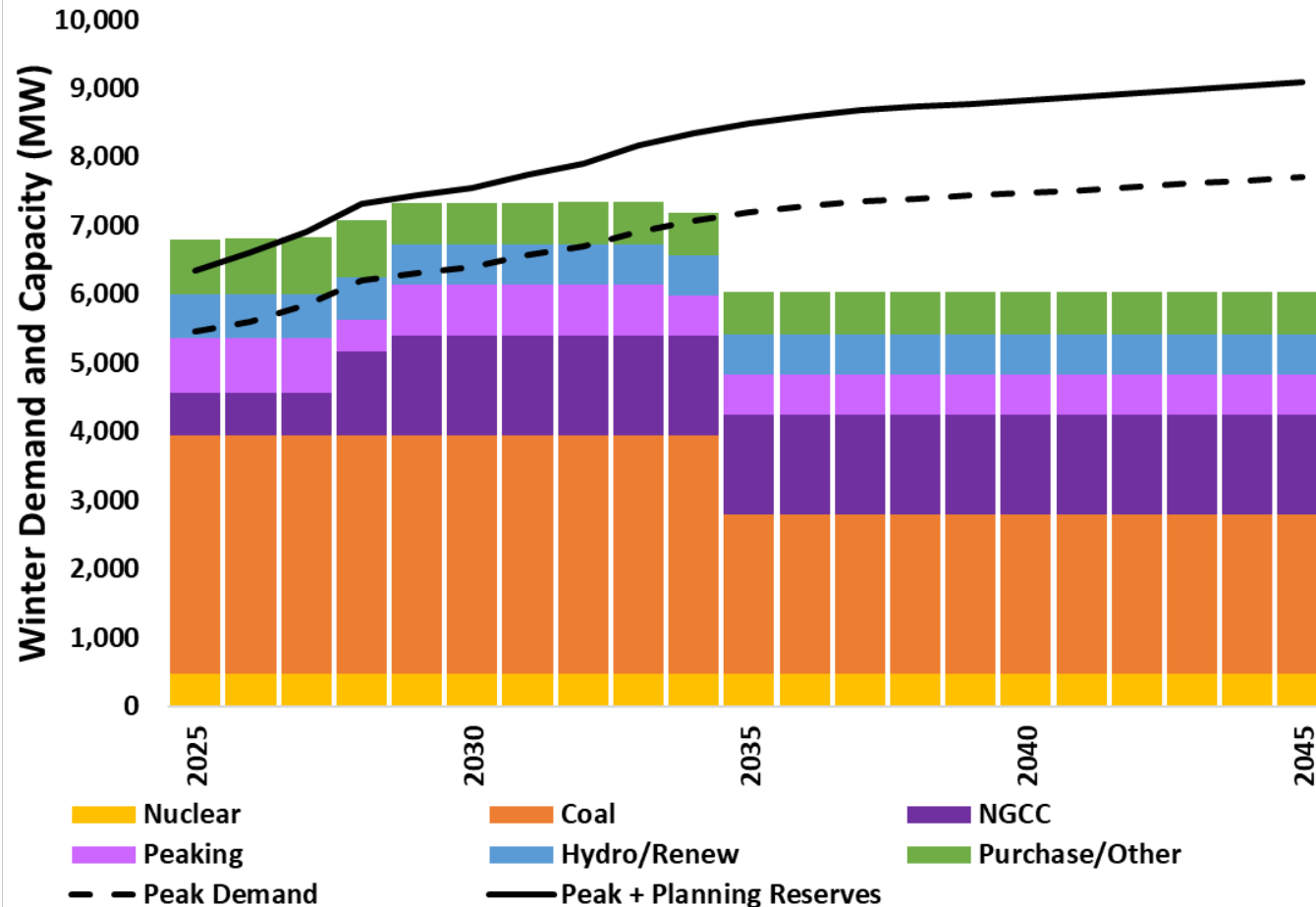
Winter Load (MW)



- The 2025 load forecast confirms growth identified in the 2024 load forecast
- Sustained interest from large loads results in significant increase to forecast from load projected in the 2023 IRP

Capacity Need

Combined System Supply and Peak Demand Balance Winter



- Capacity need starting in 2027 and grows to approximately 2,000 MW after assumed retirement of Winyah Generating Station
- Winyah will be retired when sufficient resources are available to reliably serve growing load

EPA GHG Rule Implications

- Santee Cooper evaluated the potential impacts of the 2024 GHG Rule and its proposed repeal under the 2025 GHG Rule
 - 2024 GHG Rule evaluation results in the selection of more NGCC and CT resources
 - 2025 GHG Rule evaluation results in the same portfolio as evaluated without GHG
- Near-term additions of CCs and CTs is an economic choice regardless of which GHG rule version prevails

One Big Beautiful Bill Implications

- Santee Cooper evaluated the potential impact of the new One Big Beautiful Bill Act, signed into law on July 4, 2025
- The bill accelerates the elimination of IRA tax incentives for solar and wind resources and phases out tax incentives for battery storage in the mid-2030s
- The evaluation supports greater need for energy efficient resources, such as NGCC in the mid-2030s

Stakeholder Engagement

2025 IRP Stakeholder Engagement

- Public Stakeholder Process
- 3rd Party Facilitator
- Information accessible on Santee Cooper's website

Three Types of Meetings:

- Stakeholder Working Group
- Technical Sessions
- General Notice

- To support the 2025 IRP Update, Santee Cooper facilitated:
 - 5 Stakeholder Working Group meetings from September 2024 through June 2025 with the next meeting planned for October
 - 1 General Notice meeting held in April, with 192 registrants and 101 attendees
 - 3 Technical meetings covering the topics of Coal Retirement and Market Potential Studies for Demand Side Management programs
- Stakeholders are engaged and have provided valuable feedback

Next Steps

- *2025 IRP Annual Update.* Filing with SCPSC in September. Continue to work with stakeholders to support the IRP process.
- *Coordination Agreement.* Continue collaboration with Central to ensure compliance with the Coordination Agreement.
- *Winyah Combustion Turbines.* Prepare to file siting application with the Commission.
- *Canadys NGCC.* Continued joint diligence and prepare to file siting application.
- *BESS.* Finalize BESS configuration and developer selection from BESS RFP.

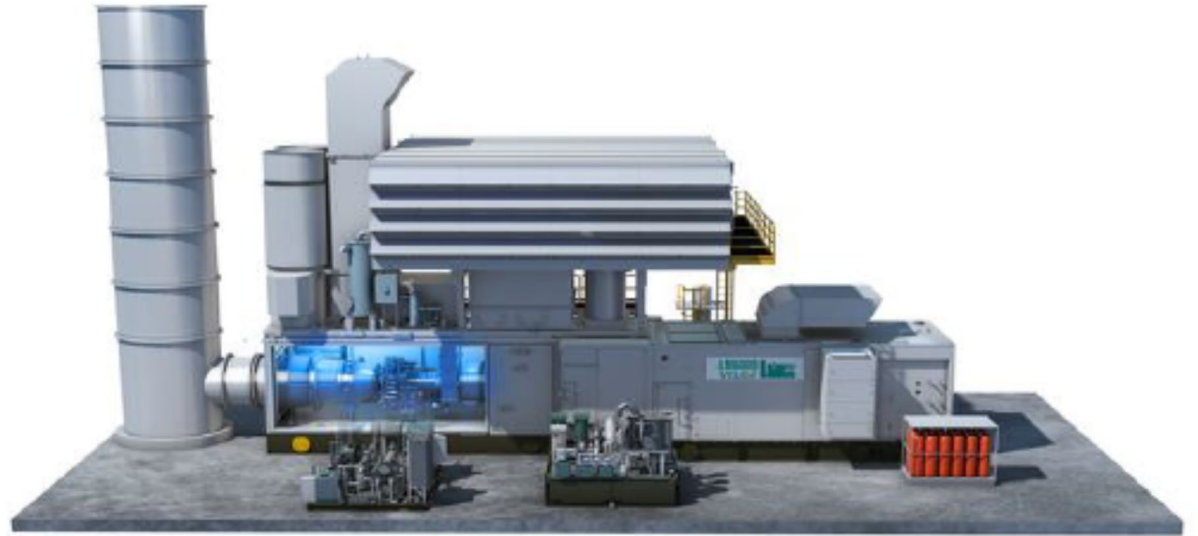


Winyah CEPCN Filing

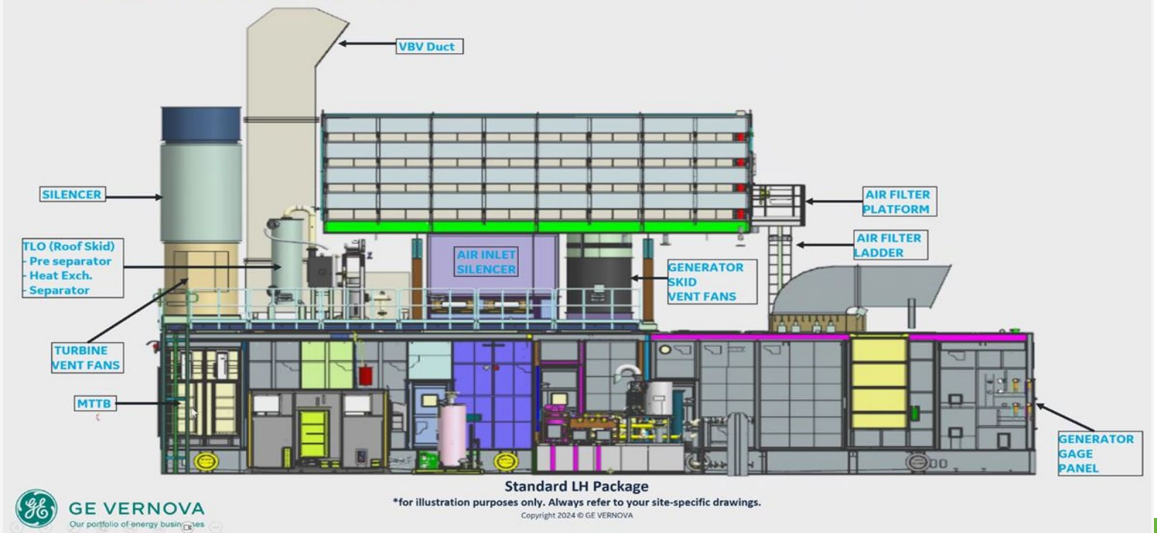
Clay Settle, Senior Manager Resource Planning

Winyah Simple Cycle Gas Turbine Project Overview santee cooper®

- Mainly used in simple cycle power plants for peaking capacity
- Two GEV LM6000 produces 40-60 MW each
- Designed for dual fuel operation
- Site located within Winyah's existing closed South Ash Pond
- COD Dec 2027 (Winter 2028)

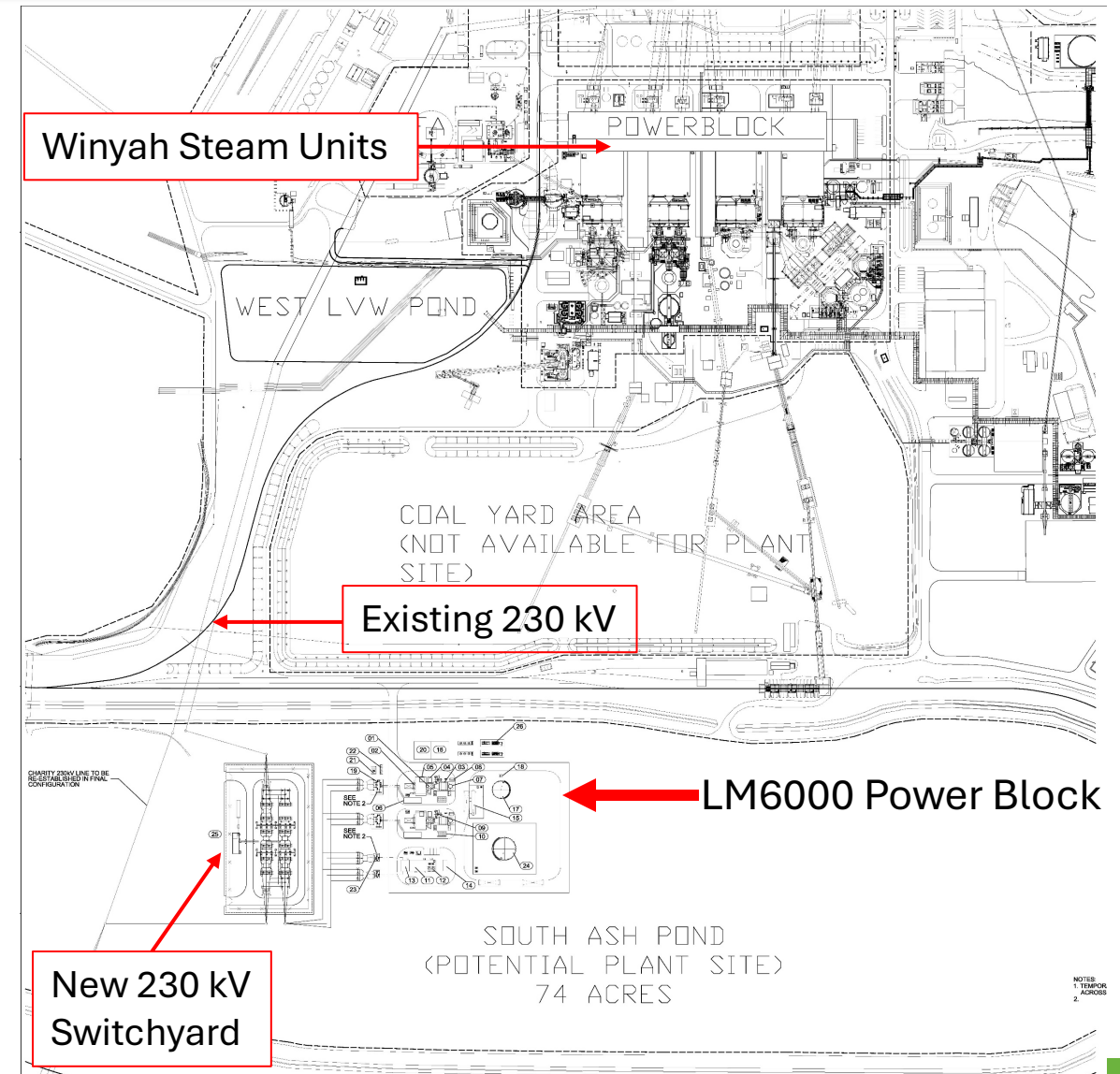


PACKAGE OVERVIEW



Project Benefits

- Adds approximately 90 MW on fuel oil and 107 MW on natural gas
- Will be “quick start” units capable of assisting peaking demands, backing up solar, and base generation
- FEED study completed by external consultant; 33-month substantial completion
- Low risk addition to our generation plan
- Low risk addition to transmission system





Meeting Closeout

Stewart Ramsay, Facilitator, VANRY Associates

Meeting Closeout

- Review and agreement for meeting action items
- Vanry will send the meeting summary to members for review
- Next working group meeting
 - Scheduled for October 14, 2025
 - Please let us know if a member would like to present on a topic
- Next general notice meeting targeted for November 18, 2025

Thank you!

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