Santee Cooper IRP Stakeholder Process 2024-2026

Coal Retirement Technical Meeting #2 – Meeting Summary

Date: 5/29/2025
Time: 2:00 PM – 4:00 PM EDT
Location: Virtual Meeting via Zoom, Vanry Associates hosting

Topics and Presenters

Technical Session – Coal Retirement Study

Clay Settle, Sr Manager Resource Planning, Santee Cooper

Bob Davis, Executive Consultant, nFront Consulting

Clay Settle opened the meeting discussing feedback[1] submitted by Energy Futures Group (EFG), on behalf of Coastal Conservation League and Southern Alliance for Clean Energy, on the information presented at Coal Retirement Technical Meeting #1. He then went through the scenarios submitted to the Santee Cooper Transmission Planning team to study and develop cost assumptions for the Cross Retirement Study. Next, Clay went through the schedule for the Retirement Study. Finally, Clay provided details on the methodology and assumptions and discussed how the results would be used in the 2026 Integrated Resource Plan (IRP). Throughout these sections of the presentation, the group had discussions on each of the topics. The slide deck presented at the meeting is attached for reference

Meeting Action Items

The following is a summary of action items, with status updates if applicable, agreed to at the close of the meeting.

ACTION ITEMS	RESPONSIBLE PARTY
Santee Cooper requested feedback from stakeholders on the Cross Retirement Study prior to 6/30/2025.	All Stakeholders

[1] Slide 2 of the attached presentation contains the feedback from EFG on the Cross Retirement Study.

Santee Cooper Resource Planning

Coal Retirement Technical Meeting #2

May 29, 2025

Stakeholder Feedback

Follow-up to Stakeholder Comments

At the start of the meeting, Santee Cooper stated that there were no comments to address from the February 26, 2025 meeting. But one of the items of significant discussion during that meeting was the possibility of iterating between transmission and resource planning modeling. We're unclear where that discussion was left and what next steps would apply. We would request a substantive written response to the following questions: Is Santee Cooper planning to move toward improved iteration between transmission and resource planning modeling? If not, how will Santee Cooper ensure it models both system reliability and an appropriate least-cost combination of transmission and generation resources to serve load?

Resource Additions and Retirements in the Coal Retirement Study and in the 2026 Comments

By the conclusion of the 2023 IRP, we had a fairly clear picture of how the choice of resource additions, retirements, and transmission projects related to each other from a cost perspective. We are concerned that this picture will not be so clear in the 2026 IRP. As stated during the April workshop, fixing in a large generator like the shared resource has significant implications for the cost of retiring the Cross units. Creating a chain of decisions that must be made 7+ years out in order to make the Cross retirement study outcomes valid doesn't preserve optionality nor allow Santee Cooper to continue to evaluate the prudency of its resource planning decisions. This is true whether alternative resource outcomes include a significantly different resource mix from Santee Cooper's current preferred plan (e.g., an all-renewable portfolio), or portfolios which propose fossil generation of different locations and different sizes.

On a related note, it's not clear why Santee Cooper wouldn't examine how its transmission upgrades might change if Winyah and Cross retirements were considered together rather than layered on top of one another. For example, could the retirement of Cross lead to the further modification of transmission facilities that are already planned for in order to accommodate Winyah's retirement?

We strongly encourage Santee Cooper to preserve optionality in its resource decision-making as it relates to its transmission studies, the coal retirement study, and the IRP.

Full Cross Retirement Scenarios

Resource	Capacity Additions (Retirements) (MW)			
	No Cross Retirement	Optimized	Relaxed Renewables, Allow Peaking	Nuclear
New NGCC				
• 2031-2034	1,020	1,020	1,020	1,020
• 2035	0	2,034	0	0
New Peaking				
• 2031-2034	1,150	894	804	894
• 2035	0	447	1,520	256
New Nuclear				
• 2031-2034	0	0	0	0
• 2035	0	0	0	2,330
New Solar				
• 2026-2034	2,200	1,900	2,350	1,500
• 2035	0	0	550	0
New BESS				
• 2026-2034	300	300	250	250
• 2035	0	0	1,100	50
New Wind				
• 2029-2034	0	150	800	0
• 2035	0	100	200	0

Resource Siting Considerations

- Natural Gas Resources
  - Canadys NGCC assumed for all cases
  - Hampton site assumed up to ~2,200 MW
  - SW region of SC assumed for the remaining NG
- Solar
  - Assuming similar project locations of solar projects in the interconnection queue
- Battery Storage (BESS)
  - Jefferies site assumed for the first 300 MW
  - For remaining BESS, assuming similar project locations of BESS projects in the interconnection queue
- Wind
  - First 250 MW of wind assumed on-shore, sited to minimize transmission impact
  - Remaining wind assumed off-shore connecting near Georgetown
- Nuclear
  - 1:1 capacity replacement assumed at Cross

Cross 1&2 Retirement Scenarios

Resource	Capacity Additions (Retirements) (MW)			
	No Cross Retirement	Optimized	Relaxed Renewables, Allow Peaking	Nuclear
New NGCC				
• 2031-2034	1,020	1,020	1,020	1,020
• 2035	0	1,360	0	0
New Peaking				
• 2031-2034	1,150	894	894	894
• 2035	0	0	939	256
New Nuclear				
• 2031-2034	0	0	0	0
• 2035	0	0	0	1,155
New Solar				
• 2026-2034	2,200	1,750	2,000	1,500
• 2035	0	0	0	0
New BESS				
• 2026-2034	300	250	250	300
• 2035	0	0	250	0
New Wind				
• 2029-2034	0	200	400	0
• 2035	0	0	100	0

Resource Siting Considerations

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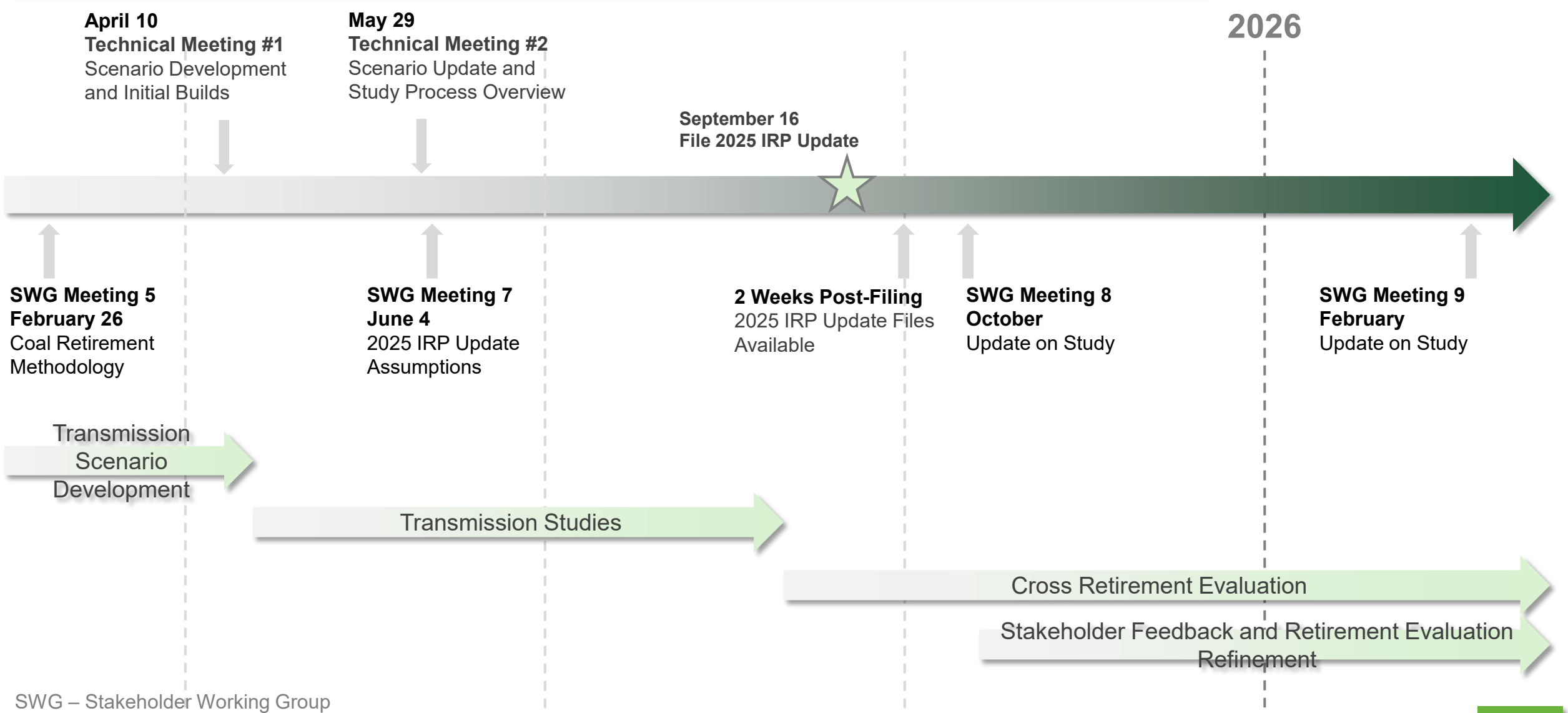
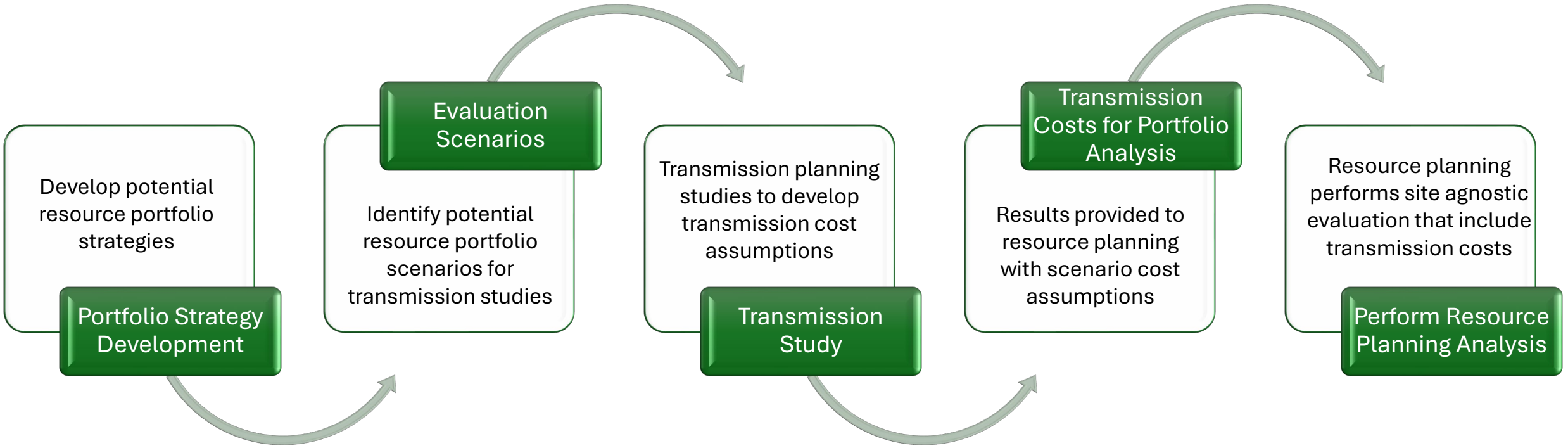
2025-2026 Cross Retirement Study



SWG – Stakeholder Working Group

Cross Retirement Methodology Discussion

The methodology will utilize the typical process for establishing portfolio scenarios, requesting transmission studies, and resource planning



2025-2026 Cross Retirement Study

- Transmission Planning will provide costs for each retirement scenario studied
- Cross retirement study will evaluate each scenario for select years resulting in a cost curve for that scenario
  - Test Years: 2035, 2040, 2045
  - Scenarios:
    - Baseline (no retirement during study period)
    - Cross Retirement (retire full plant, retire Cross Units 1&2)
      - Unconstrained capacity expansion
      - Relaxed Renewables w/ Peakers
      - Small Modular Reactor (SMR) replacement
    - Sensitivities as necessary
  - EnCompass Optimization runs will build portfolio
  - Production Cost runs for cost reporting
  - Transmission costs will be added to production cost results

Cross Retirement Considerations

- Reporting for multiple Cross retirement portfolio strategies:
  - NPV Cost and Timing
  - CO2 Emissions
  - Portfolio Risks
  - Transmission Investment Estimates