South Carolina Regional Transmission Planning

Stakeholder Meeting

Web Conference

June 3, 2025 10:00 AM

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Purpose and Goals for Today's Meeting

- Review Economic Power Transfer Study Principles
- Identify Economic Power Transfer Sensitivities to be Studied

Economic Transmission Planning
Power Transfer Sensitivities

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Economic Transmission Planning Principles

The purpose of Order 890's Economic Transmission Planning Principle is to:

- ensure that customers may request studies that evaluate potential upgrades or other investments that could reduce congestion or integrate new resources and loads on an aggregated or regional basis
- allow customers, not the transmission provider, to identify those portions of the transmission system where they have encountered transmission problems due to congestion or whether they believe upgrades and other investments may be necessary to reduce congestion and to integrate new resources

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Economic Transmission Planning Principles

(continued)

- allow customers to request that the transmission provider study enhancements that could reduce such congestion or integrate new resources on an aggregated or regional basis without having to submit a specific request for service

This approach ensures that the economic studies required under this principle are focused on customer needs and concerns

Economic Transmission Planning Sensitivity Selection

- All requested sensitivities will be considered except sensitivities that specify specific generation resources
- Up to 5 sensitivities will be identified for study
- If more than 5 are requested, Stakeholder voting members will vote to select the top five
- Sensitivities that are not selected by the voting process as one of the 5 studied sensitivities will be studied only if the requestor(s) pays for the additional study efforts

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Economic Transmission Planning Sensitivity Selection

- SCRTP economic power transfer sensitivity studies will identify congestion and required improvements only inside the SCRTP footprint

Recent Economic Study Results Overview

- Recent studies in this forum have indicated that high levels of transfers will impact the SCRTP transmission systems
- As the level of transfers increase, the network upgrades needed to address overloaded facilities also increase

Economic Transmission Planning
Power Transfer Sensitivities

Sensitivities Selection

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Previous Economic Planning Studies

Year	Source	Sink	Study Year	Transfer
2020	SOCO	SCPSA	2026/27 Winter	300 MW
2020	SOCO	SCPSA	2026/27 Winter	600 MW
2020	SOCO	SCPSA	2026/27 Winter	900 MW
2020	SOCO	SCPSA	2027 Summer	300 MW
2020	SOCO	SCPSA	2027 Summer	600 MW
2021	Duke Energy Carolinas	SCPSA	2028 Summer	750 MW
2021	Duke Energy Carolinas	SCPSA	2028/29 Winter	750 MW
2021	SOCO	SCPSA	2028 Summer	750 MW
2021	SOCO	SCPSA	2028/29 Winter	750 MW
2021	SOCO	SCPSA	2026/27 Winter	750 MW

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Previous Economic Planning Studies

Year	Source	Sink	Study Year	Transfer
2022	Duke Energy Carolinas	SCPSA	2026 Summer	200 MW
2022	Duke Energy Carolinas	SCPSA	2026/27 Winter	200 MW
2022	SOCO	SCPSA	2026/27 Winter	600 MW
2022	Duke Energy Carolinas	SCPSA	2031 Summer	200 MW
2022	Duke Energy Carolinas	SCPSA	2031/32 Winter	200 MW
2023	SOCO	DESC	2028/29 Winter	1300 MW
2023	SOCO	DESC	2028/29 Winter	950 MW
2023	MISO	DESC	2032/33 Winter	950 MW
2023	DEP	DESC	2032/33 Winter	950 MW
2023	PJM	DESC	2028/29 Winter	950 MW

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Previous Economic Planning Studies

Year	Source	Sink	Study Year	Transfer
2024	DEC/SOCO	SCPSA	2033 Summer	1200/1200 MW
2024	DEC/SOCO	SCPSA	2033/34 Winter	1200/1200 MW
2024	DEC/SOCO	SCPSA	2028 Summer	1200/1200 MW
2024	DEC/SOCO	SCPSA	2028/29 Winter	1200/1200 MW
2024	SOCO	DESC	2025 Summer	300 MW

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Transmission Planning Base Cases
2024 MMWG and SERC Series

2025 Spring Light Load
2025 Summer Peak
2025/26 Winter Peak
2026 Spring Light Load
2026 Summer Peak
2026/27 Winter Peak

2029 Spring Minimum Load
2029 Summer Peak
2029 Summer Shoulder
2029/30 Winter Peak
2034 Summer Peak
2034/35 Winter Peak

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Economic Transmission Planning Sensitivity Selection

Economic Sensitivity #1: 3500* MW Transfer from DESC to SCPSA	
Source Area:	DESC
Sink Area:	SC
Transfer (MW):	3500* MW (Specifically 3500 minus however many MW of solar/battery MW are already modeled in the DESC case)
Study Year:	2033 or 2035 whichever case is available
Study Conditions:	Summer
Other Information:	Gen to Load transfer Load should be considered prospective new data center load
Benefits of Study and Other Comments	

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Economic Transmission Planning Sensitivity Selection

Economic Sensitivity #2: 2700* MW Transfer from SCPSA to DESC	
Source Area:	SC
Sink Area:	DESC
Transfer (MW):	2700* MW (Specifically 2700 minus however many MW of solar/battery MW are already modeled in the SC case)
Study Year:	2034 or 2035 whichever case is available
Study Conditions:	Summer
Other Information:	Gen to Gen
Benefits of Study and Other Comments:	

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Economic Transmission Planning Sensitivity Selection

Economic Sensitivity #3: 1000 MW Transfer from DESC to SC	
Source Area:	DESC
Sink Area:	SC
Transfer (MW):	1000 MW
Study Year:	2031
Study Conditions:	Winter
Other Information:	Gen to Gen
Benefits of Study and Other Comments:	

2024 Economic Planning Proposed Scenarios

#	Source	Sink	Amount (MW)	Year	Study Conditions	Requestor
1	DESC	SC	3500*	2034/35	Summer–GTL	SACE
2	SC	DESC	2700*	2034/35	Summer-GTG	SACE
3	DESC	SC	1000*	2031	Winter	SACE
4						
5						
6						
7						
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2024 Economic Planning Scenarios

Selected by Stakeholders During the June 3, 2025 Meeting

#	Source	Sink	Amount (MW)	Year	Study Conditions
1	DESC	SCPSA	3500(minus DESC base case solar-battery in model)	2034/35 S	Gen to load* Data center load
2	SCPSA	DESC	2700(minus SCPSA base case solar/battery in model)	2034/35 S	Gen-to-Gen
3	DESC	SCPSA	1000	2031 W	Gen-to-gen
4					
5					

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Next SCRTP Meeting

- Review and discuss the initial results of the Economic Transfer Studies
- SCRTP Email Distribution List will be notified of meeting announcement
- Register online