South Carolina Regional Transmission Planning

Stakeholder Meeting

Web Conference

May 24, 2022 10:00 AM – 12:00 PM

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Purpose and Goals for Today's Meeting

- Review Stakeholder Member Voting criteria
- Review Stakeholder Voting Members
- Review Economic Power Transfer Study Principles
- Identify Economic Power Transfer Sensitivities to be Studied

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Elect SCRTP Stakeholder Group Voting Members

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Stakeholder Group Sectors

- Transmission Owners/Operators
- Transmission Service Customers (PTP and Network)
- Cooperatives
- Municipals
- Marketers
- Generation Owners/Developers
- ISO/RTO
- State Regulatory Representatives (non-voting)

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Key Features of Stakeholder Group

- Stakeholder participants determine sector affiliation
- Each sector will have two voting members
- One vote per member
- Majority Rule
- Voting members determined by sector members
- Each company will have one voting member in the stakeholder group
- Stakeholder meetings are open to non-stakeholder members
- Stakeholder group will identify and request economic transfers to be studied (if more than five requested, stakeholders will vote to select the top five)
- Stakeholder group can change the number and timing of meetings with agreement by SCPSA and DESC

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2022 Stakeholder Group Voting Members

- Cooperatives

  Kale Ford, Central Electric

- Municipals

  James Alford, Orangeburg DPU

- Network and PTP Transmission Customers

  Samuel Loggins, Southeastern Power Administration

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2022 Stakeholder Group Voting Members

- Generation Owners / Developers

- Marketers
  - Eddie Folsom, DESC Power Marketing
  - Colby Bruner, Santee Cooper Power Marketing

- Transmission Owners

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Stakeholder Breakout Session to Select Voting Representatives

Economic Transmission Planning
Power Transfer Sensitivities

Chris Wagner

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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

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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

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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

Previous Economic Planning Studies

Year	Source	Sink	Study Year	Transfer
2017	Duke Energy Carolinas (DEC)	SCE&G	2021 Summer	300 MW
2017	Southern Company	SCE&G	2020 Summer	300 MW
2017	Southern Company	SCE&G	2021 Winter	300 MW
2018	Southern Company	Santee Cooper	2022 Summer	1000 MW
2018	Santee Cooper	Duke Energy Carolinas	2022 Summer	1000 MW
2018	Duke Energy Carolinas	Santee Cooper	2022 Summer	1000 MW
2019	SOCO	DESC	2020 Summer	500 MW
2019	DEC	SCPSA	2020 Summer	500 MW
2019	SOCO	SCPSA	2020 Summer	800 MW
2019	DEC	SCPSA	2023/24 Winter	500 MW
2019	SOCO	SCPSA	2023/24 Winter	1000 MW

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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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Transmission Planning Base Cases
2021 MMWG and SERC Series

2022 Spring Light Load
2022 Summer Peak
2022/23 Winter Peak
2023 Spring Light Load
2023 Summer Peak
2023/24 Winter Peak

2026 Spring Minimum Load
2026 Summer Peak
2026 Summer Shoulder
2026/27 Winter Peak
2031 Summer Peak
2031/32 Winter Peak

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Economic Transmission Planning Sensitivity Selection

Economic Sensitivity #1: 200 MW Transfer from DEC to SCPSA 2026 Winter	
Source Area:	Duke Energy Carolinas
Sink Area:	Santee Cooper
Transfer (MW):	200
Study Year:	202627
Study Conditions:	Winter
Other Information:	Gen to Load transfer
Benefits of Study and Other Comments:	Market Transfer Analysis Limitations

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Economic Transmission Planning Sensitivity Selection

Economic Sensitivity #2: 200 MW Transfer from DEC to SCPSA 2031 Winter	
Source Area:	Duke Energy Carolinas
Sink Area:	Santee Cooper
Transfer (MW):	200
Study Year:	203132
Study Conditions:	Winter
Other Information:	Gen to Load transfer
Benefits of Study and Other Comments:	Market Transfer Analysis Limitations

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Economic Transmission Planning Sensitivity Selection

Economic Sensitivity #3: 200 MW Transfer from DEC to SCPSA 2026 Summer	
Source Area:	Duke Energy Carolinas
Sink Area:	Santee Cooper
Transfer (MW):	200
Study Year:	2026
Study Conditions:	Summer
Other Information:	Gen to Load transfer
Benefits of Study and Other Comments:	Market Transfer Analysis Limitations

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Economic Transmission Planning Sensitivity Selection

Economic Sensitivity #4: 200 MW Transfer from DEC to SCPSA 2031 Summer	
Source Area:	Duke Energy Carolinas
Sink Area:	Santee Cooper
Transfer (MW):	200
Study Year:	2031
Study Conditions:	Summer
Other Information:	Gen to Load transfer
Benefits of Study and Other Comments:	Market Transfer Analysis Limitations

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Economic Transmission Planning Sensitivity Selection

Economic Sensitivity #5: 600 MW Southern Company to SCPSA 202627 Winter	
Source Area:	Southern Company
Sink Area:	Santee Cooper
Transfer (MW):	600
Study Year:	2026
Study Conditions:	Winter
Other Information:	Gen to Gen transfer
Benefits of Study and Other Comments:	Market Transfer Analysis Limitations

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2022 Economic Planning Proposed Scenarios

#	Source	Sink	Amount (MW)	Year	Study Conditions	Requestor
1	DEC	SCPSA	200	202627	Winter	Kale Ford
2	DEC	SCPSA	200	203132	Winter	Kale Ford
3	DEC	SCPSA	200	2026	Summer	Kale Ford
4	DEC	SCPSA	200	2031	Summer	Kale Ford
5	SOCO	SCPSA	600	202627	Winter	Matthew Morgan

2022 Economic Planning Scenarios

Selected by Stakeholders During the May 24, 2022 Meeting

#	Source	Sink	Amount (MW)	Year	Study Conditions
1	DEC	SCPSA	200	202627	Winter
2	DEC	SCPSA	200	203132	Winter
3	DEC	SCPSA	200	2026	Summer
4	DEC	SCPSA	200	2031	Summer
5	SOCO	SCPSA	600	202627	Winter

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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

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