

South Carolina Regional Transmission Planning

Stakeholder Meeting

Teams

February 22, 2023

Purpose and Goals for Today's Meeting

- Review and Discuss Key Assumptions and Data for the Next Planning Cycle
- Review and Discuss Major Transmission Expansion Plans
- Review Schedule for completing Transmission Planning Studies

Key Assumptions and Data for the Next Planning Cycle

DESC – Scott Parker

Modeling Assumptions and Data

Dispersed Substation Load Forecast

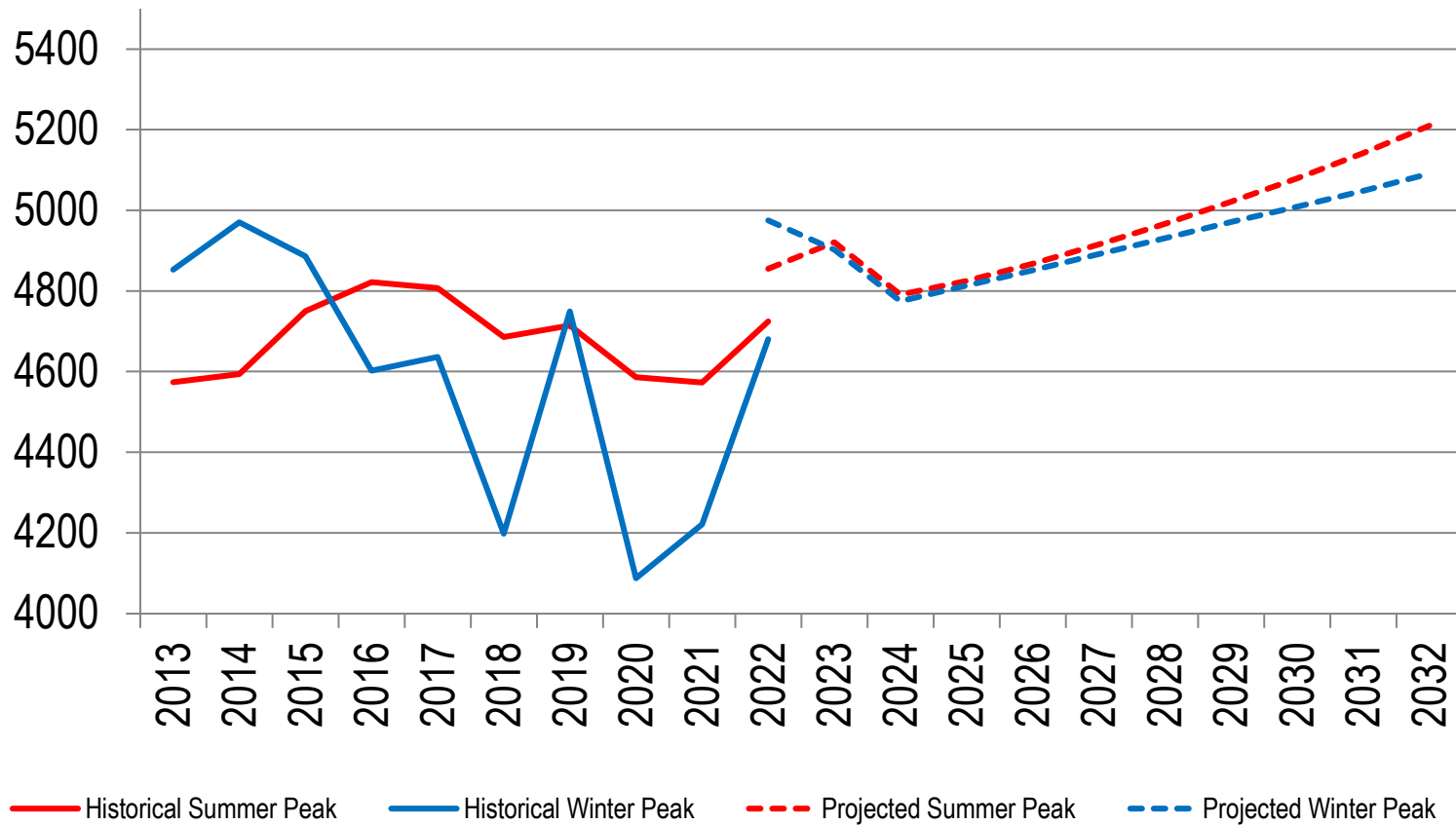
- Summer/Winter Peak, Off-Peak and Seasonal Load Levels
- Resource Planning provides 10 Year system load forecasts
- Transmission Planning creates dispersed substation load forecasts

Load Forecast Process

Resource Planning Input

- Develop 10-year projected forecast based on:
 - 10-year historical load summer and winter loads
 - Load factors by customer class
 - Considers weather, personal income, population growth, economic conditions, load management, energy efficiency, etc
 - Applies regression analysis to historical data to develop models
 - Applies forecasted growth rates to develop future projections

Load Forecast



Load Forecast Process

Transmission Planning Input

- Obtain summer and winter snapshot meter data from most recent seasons and adjust for load switching
- Develop 10-year projected forecast based on:
 - 10-year historical loading
 - Feedback from Distribution Planning, Local Managers, Large Industrial Group and Transmission Services Manager
- Wholesale loads are modeled as provided by the customer
- Dispersed forecasted load points are integrated into corporate load forecast

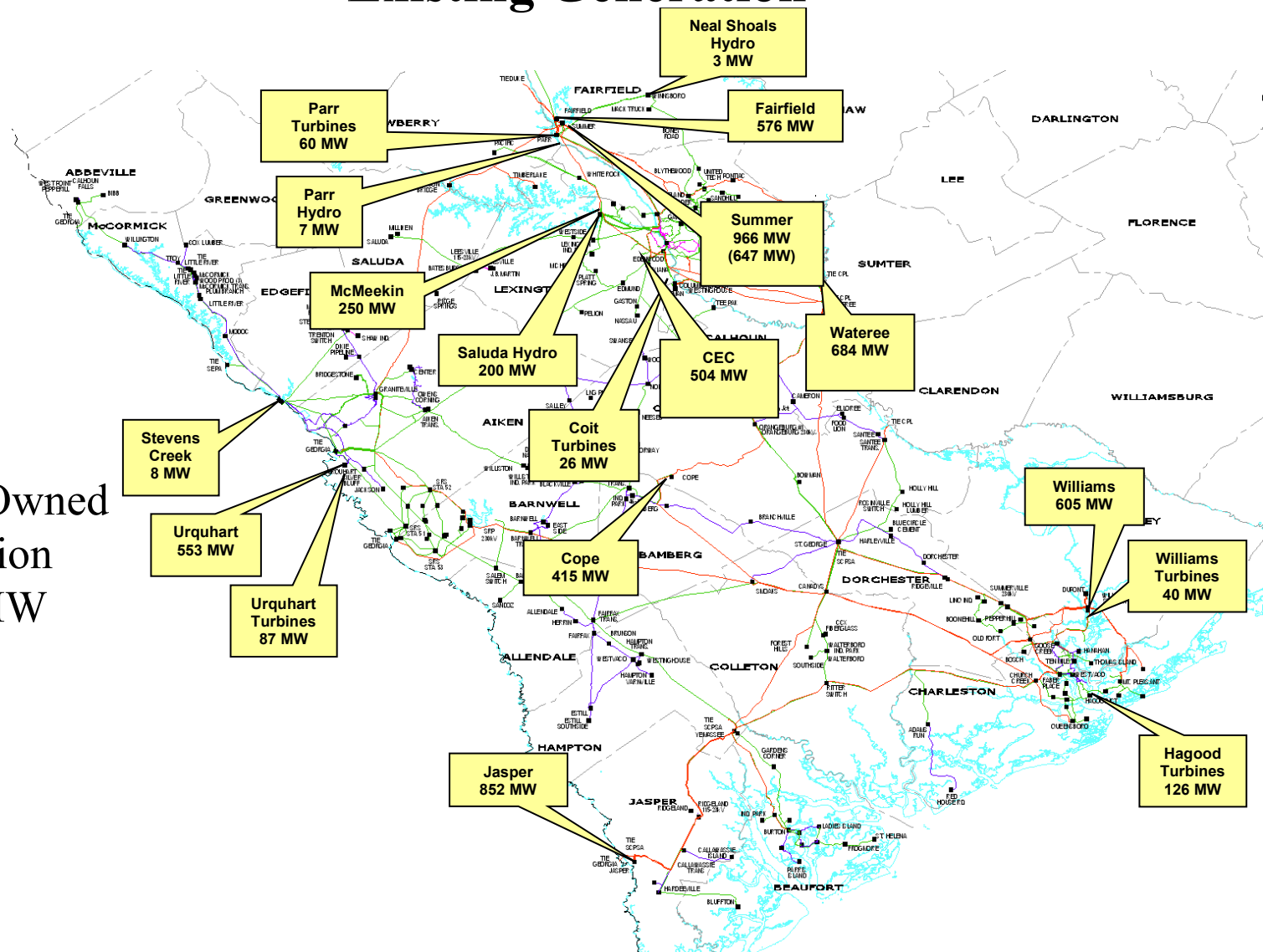
Modeling Assumptions and Data

Generation

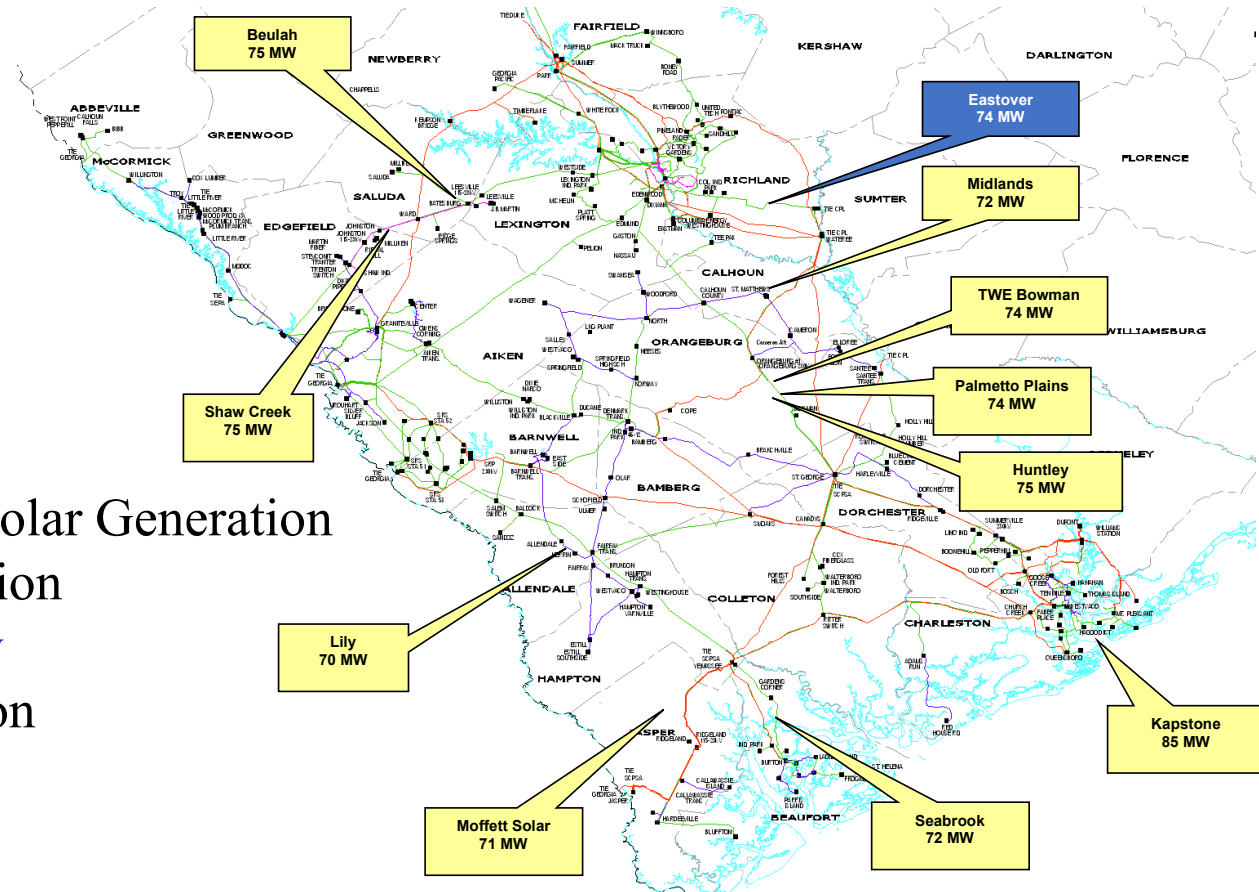
- Annual generator ratings used
- Input from Generation Expansion Plan – Reductions/Additions
- Input from Generation Maintenance Schedule
- Generators dispatched economically
- Merchant Generators included, modeled at contracted output

Existing Generation

DESC Owned
Generation
5,657 MW



Merchant Generation

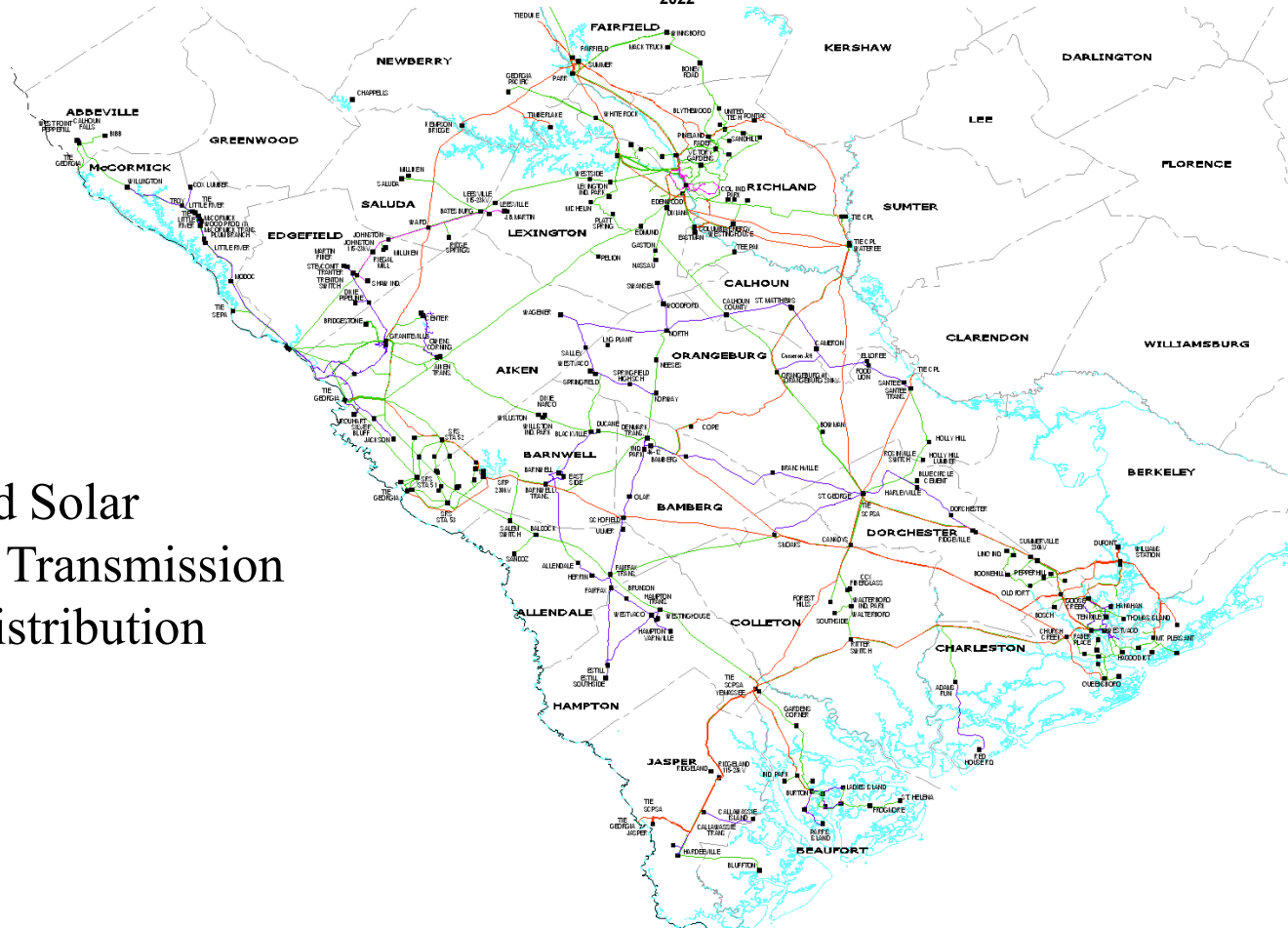


Additional Dispersed Solar Generation

- 855 MW Transmission
 - 18 MW Battery
- 193 MW Distribution

Future Generation Additions

2022



Dispersed Solar
398 MW Transmission
0 MW Distribution

Interconnection Transitional Cluster

- 1733 MW of gas/solar/BESS generation in cluster
- Phase 1 just completed
 - 474 MW will move forward to Phase 2

Modeling Assumptions and Data

Transmission Network

- Input from Transmission Plan
- Neighboring Transmission Systems Modeled

Modeling Assumptions and Data Planned Transmission Facilities

Dominion Energy South Carolina Planned Transmission Facilities	
Planned Project	Tentative Completion Date
Queensboro – Johns Island 115 kV Tie: Rebuild River and Marsh Crossing	Mar-23
Edenwood Sub: Replace Switch house	Sep-23
Eastover - Square D 115kV: Rebuild	Oct-23
Denny Terrace Sub: Replace Switch house	Dec-23
Church Creek - Ritter 230kV - Replace 25 Large Angles and Dead Ends	Dec-23
Queensboro - Ft Johnson 115 kV & Queensboro-Bayfront 115kV (Queensboro-James Island Sect)	Dec-23
Summerville: Replace and Spare 230-115kV 336MVA Auto Bank	Dec-23
Church Creek-Queensboro 115kV: Stono River Crossing	Dec-23
Square D - Hopkins 115kV: Rebuild	Jul-24
Cainhoy - Hamlin 115kV: Rebuild Line and Cainhoy – Hamlin 115 kV #2: Construct New 115 kV Line	Dec-24
Edenwood Sub: #1 & #2 230-115kV Autobanks, Replace with 336MVA	Dec-24
Wateree-Hopkins 230kV Line #2: Rebuild	Dec-24
Burton-St Helena 115kV: Rebuild Burton-Frogmore Transmission Section	Dec-24
Goose Creek Reservoir: Rebuild Transmission Line Crossings	Dec-24
Okatie 230–115kV Sub and the Jasper – Yemassee Fold In	Dec-24
Stevens Creek - Hooks 115kV/LR Plumb Branch 46kV Rebuilds	Dec-24
Jasper – Okatie 230 kV #2: Construct	Dec-24
Okatie-Bluffton 115kV: Rebuild	Dec-24
Orangeburg #1 - Cameron Jct 46kV Line Rebuild	Dec-24
Riverport Tap: Construct Tap	Dec-24
St George - Sumter 230kV Tie: Rebuild Line from Santee Substation - Duke/Progress Energy Tie	Dec-24
Hooks - Thurmond 115kV Tie Rebuild	Dec-24
Summerville 115 kV Loop Rebuild	Dec-25
Stevens Creek – Clarks Hill 115/46 kV Rebuild	Dec-25
Burton-St Helena 115kV: Frogmore Distribution - St Helena	Dec-25
Hopkins-CIP 230kV: Rebuild	Dec-25
Faber Place-Bayfront 115kV: Rebuild North Bridge Terrace to Bayfront Section	Dec-25
Harleyville 115kV Transmission Tap – Construct (1.4 miles)	Dec-25
Union Pier 115-13.8 kV Sub: Tap	Dec-25
Wagener 115kV Tap: Construct Tap	Dec-25
Williams St Sub: Replace Sw House & Relays and McMeekin Sub: Add Sw House	Dec-25
Canady – Ritter 115kV: Rebuild as 230/115kV Double Circuit	Jun-26
Yemassee– Ritter 230kV #1 & #2: Construct SPDC with B-1272	Jun-26
Church Creek – Faber Place – Charleston Transmission: Add 230kV Line	Jun-26
VCS1-Denny Terrace 230kV & VCS1-Pineland 230kV: Rebuild Single Circuit Sections	Dec-26
Cameron – St Matthews 46kV: Rebuild	Dec-26
Wateree-Hopkins 230kV Line #1: Rebuild	Dec-26
Williams-Summerville 230kV: Upgrade to SPDC B1272 ACSR	May-27
Clements Ferry 115–23kV Sub: Construct; Jack Primus–Cainhoy 115kV with Clements Ferry Tap Construct	Dec-27
Wateree-Killian 230kV: Rebuild	Dec-28

Modeling Assumptions and Data

System Interchange

- Firm scheduled transfers included
- Coordinated with Neighbors

Santee Cooper Transmission Planning Models Key Assumptions and Data

Weijian Cong

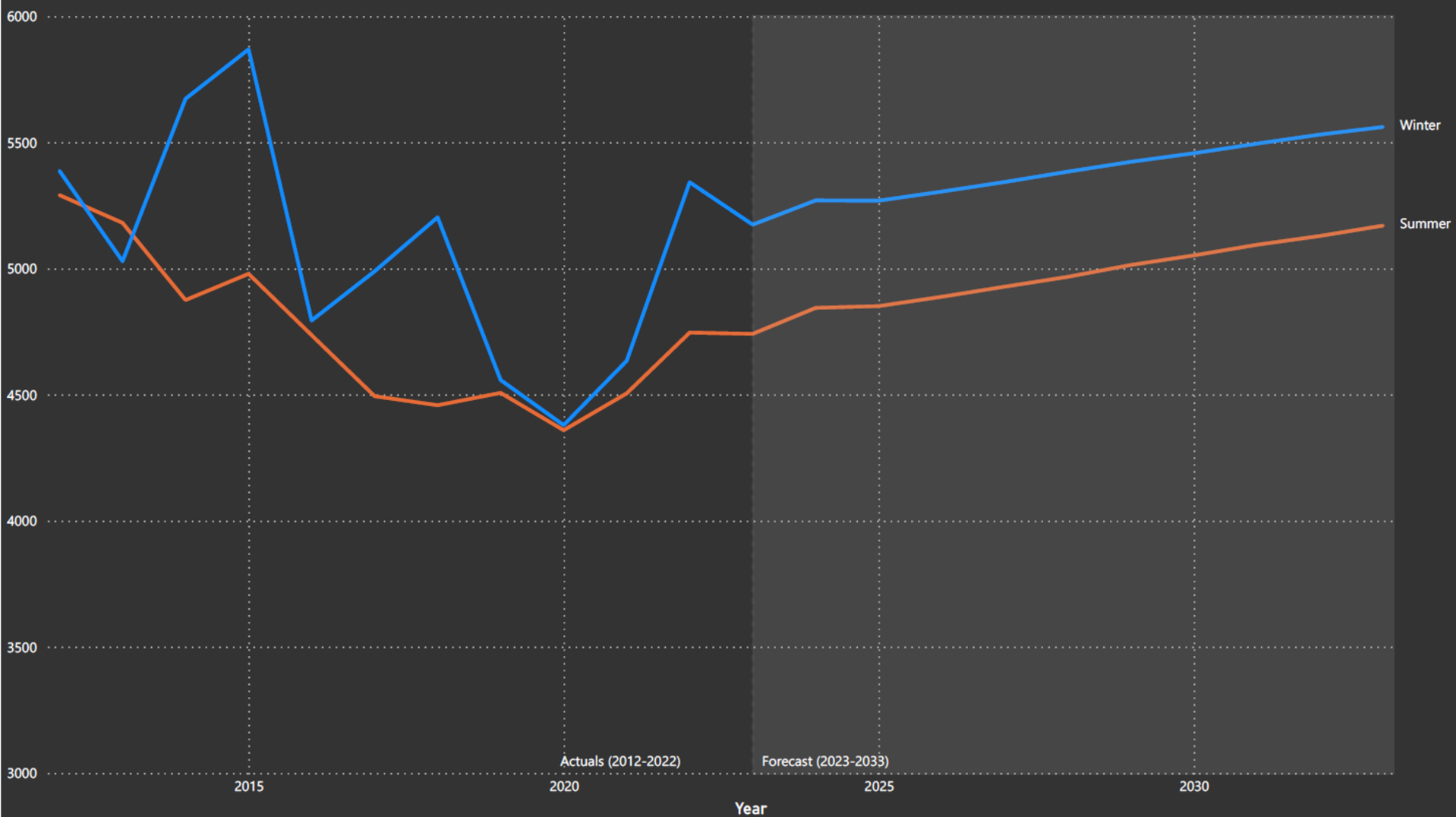
Major Model Components

- Load Demand Forecast
- Transmission Network
- Generation Resources
- Actual System Operations

Load Demand Forecast

- 10-year projected demand forecast
 - Wholesale customers load forecast
 - Industrial and municipality customer contracts
 - Santee Cooper Distribution load forecast & grow rates
 - Transmission Planning produces dispersed substation load based on power factors derived from most recent meter data
- System Peak and off-peak load conditions

Santee Cooper 10-Year Actual & Load Forecast



Transmission Network

Models include:

- Existing transmission system and committed projects
- Neighboring transmission system representations
- All facilities assumed to be available unless notified otherwise
- Normal operating status (in-service or out-of-service) of facilities is represented

Transmission Network

- Uniform rating methodology is applied to transmission facilities
- Base case models are updated annually prior to annual transmission assessment
- Study models may be updated as needed prior to any study
- Neighboring and Regional system network from the latest MMWG models are used

Committed Transmission Facilities

Project Title	In-service Date
Aiken 230-115 kV Transformer #2 Addition	11/01/2022
Yemassee 230 kV Station Improvements	03/30/2023
Johns Island – Queensboro (DESC) 115 kV Line	06/30/2023
Camp Hall North Loop 115 kV Line	03/31/2023
Wassamassaw 230-115 kV Substation	06/30/2024
Wassamassaw – Pringletown #2 115 kV Line	06/30/2024
Conway 230 kV Switching Station	09/01/2024
Marion – Conway 230 kV Line	09/01/2024
Kingstree 230 kV Series Bus Tie Breaker	12/01/2024
Clearpond 115-12 kV Substation	09/01/2025
Carolina Forest 230-115 kV Transformer #1 Addition	12/01/2025
Chime Bell 115 kV Switching Station	12/01/2025
Conway – Perry Road 230 kV Line	12/01/2025
Varnville to Robertville 69 kV Rebuild to 115 kV	12/01/2025
Cross – Wassamassaw 230 kV #2 Line	06/01/2026
Wassamassaw – Cane Bay 115 kV Line	06/01/2026
Rebuild Kingstree – Hemingway 115 kV Line as a Double Circuit 230/115 kV Line	06/01/2027
Marion – Red Bluff 230 kV Line	12/01/2027

Generation Resources

Existing/Committed Connected Generation

Cross Units 1- 4	J.S. Rainey Combined Cycle PB1
Winyah Units 1-4 (retire end of 2028)	J.S. Rainey 2A, 2B CTs
Hilton Head Turbines 1-3	J.S. Rainey 3-5 CTs
Myrtle Beach Turbines 1-5	Spillway Hydro
Jefferies Hydro 1, 2, 3, 4, 6	St. Stephen Hydro 1-3
Allendale (Merchant)	V.C. Summer #1 (shared output with DESC)
Dorchester (Merchant)	Domtar (Merchant)
Centerfield Solar (Merchant)	Gunsight Solar (Merchant)
Allora Solar (Merchant ISD 2023)	Landrace Solar (Merchant ISD 2023)
Chester White Solar (Merchant ISD 2024)	Lambert I Solar (Merchant ISD 2023)
Orangeburg South Solar (Merchant ISD 2025)	Lambert II Solar (Merchant ISD 2023)

Existing Generation

**VC SUMMER
NUCLEAR**

**RAINEY
GAS TURBINES**

**MYRTLE BEACH
Gas Turbines**

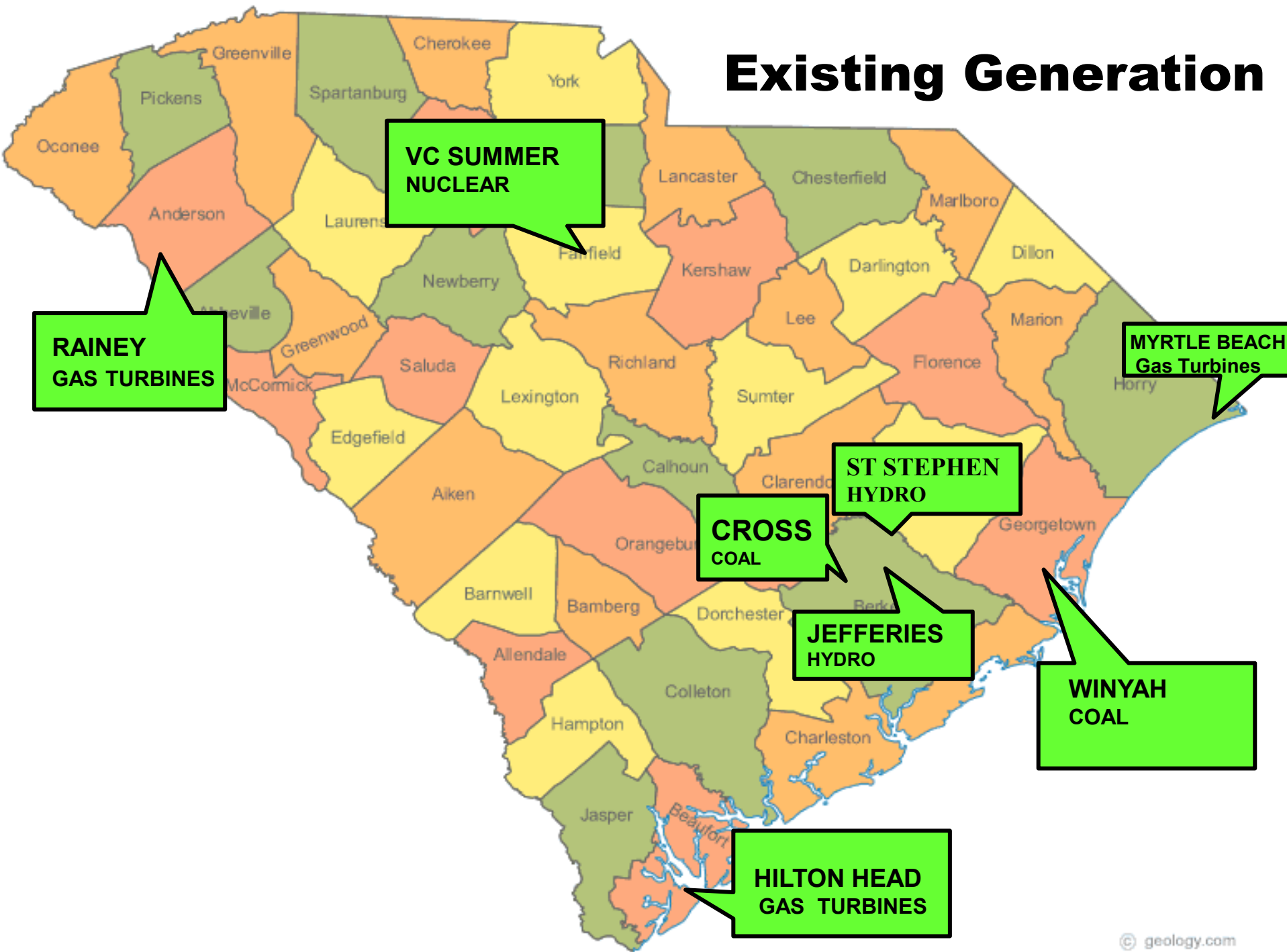
**ST STEPHEN
HYDRO**

**CROSS
COAL**

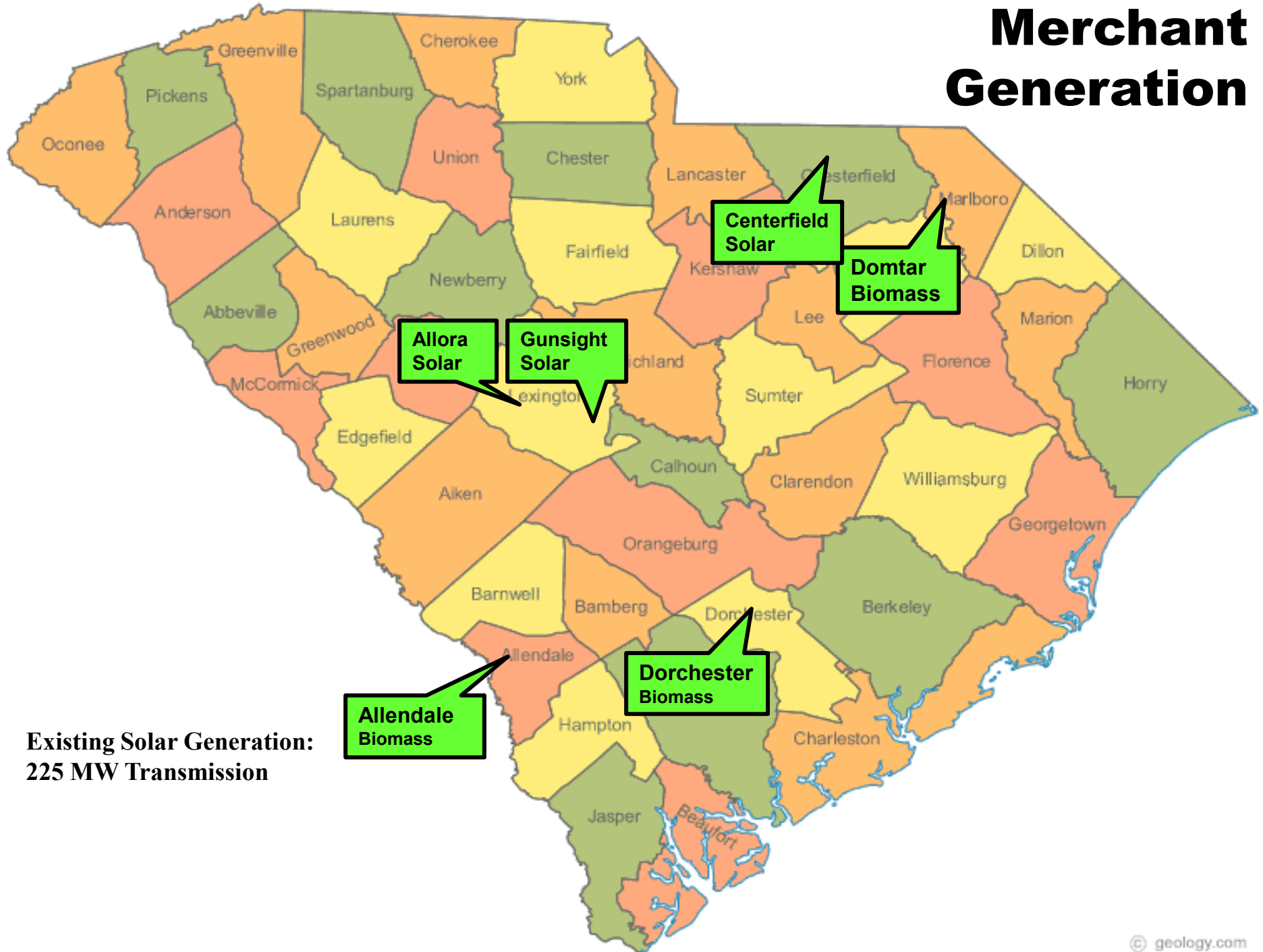
**JEFFERIES
HYDRO**

**WINYAH
COAL**

**HILTON HEAD
GAS TURBINES**

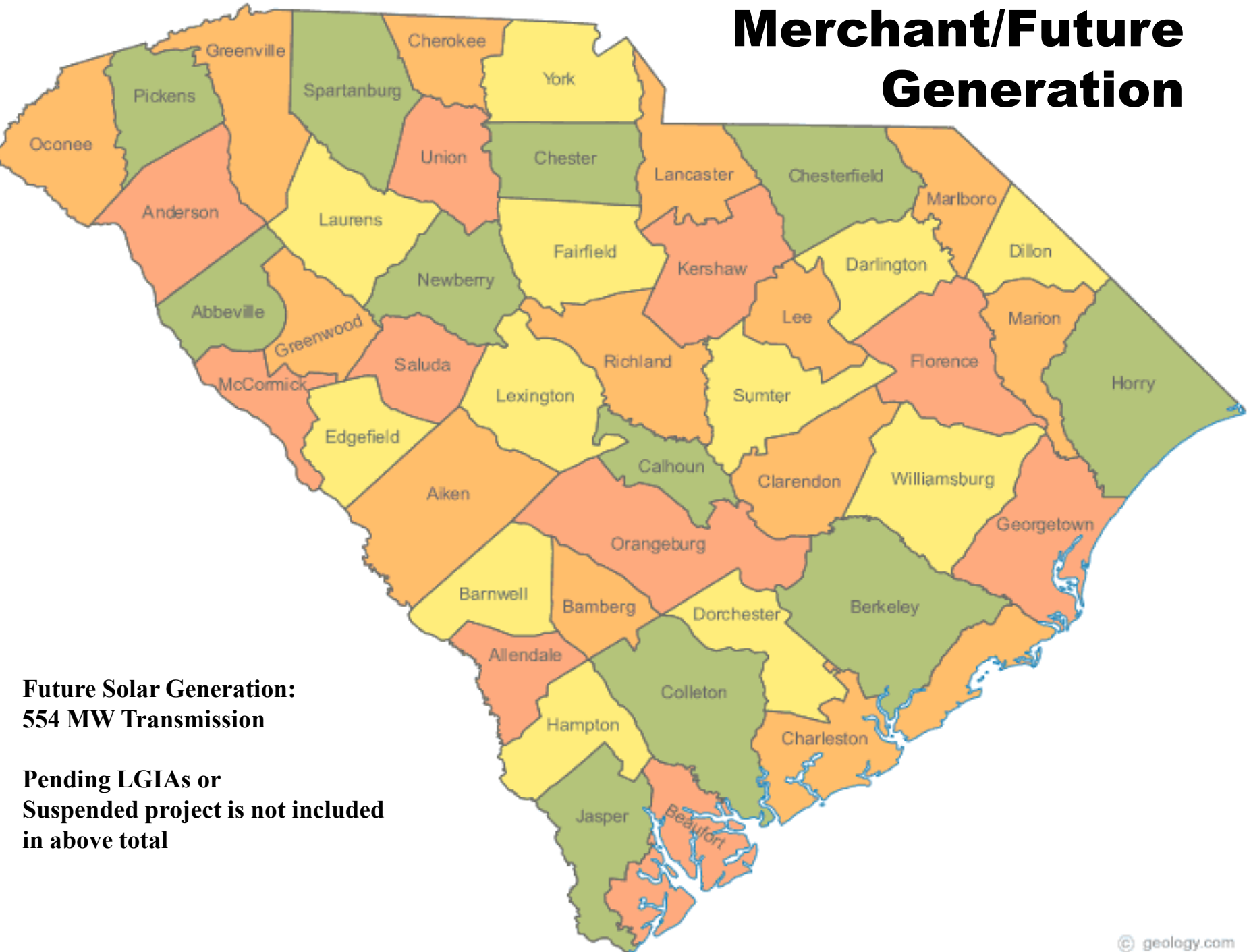


Merchant Generation



**Existing Solar Generation:
225 MW Transmission**

Merchant/Future Generation



**Future Solar Generation:
554 MW Transmission**

**Pending LGIAs or
Suspended project is not included
in above total**

Resources Assumptions and Data

- Generation data is verified with Generation Department
- Seasonal models account for unit maintenance outages, known at the time, based on planned maintenance schedules
- Confirmed firm transmission service reservations
- SEPA allocations and other contracted purchases

Economic dispatch order is used for generator dispatch in base cases

Santee Cooper Planning Models

Data and Assumptions

Questions?

Current DESC Transmission Expansion Plans

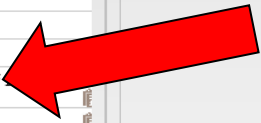
Edward Chapman

Disclaimer

- The projects described in these presentations represent the current transmission plans within the SCRTP footprint.
- The expansion plan is continuously reviewed and may change due to changes in key data and assumptions.
- This presentation does not represent a commitment to build.

Menu Panel

- Documents
- Keyword
- [NAESB Home Page](#)
 - ▢ [Standards of Conduct](#)
 - ▢ [Performance Metrics](#)
 - ▢ [Business Practices, Waivers, and Exemptions](#)
 - ▢ [ATC Information](#)
 - ▢ [Currently Effective OATT](#)
 - ▢ [Designated Network Resources](#)
 - ▢ [Planning and Assessment Documents](#)
 - ▢ [Planned Transmission Facilities \(as of](#)
 - ▢ [AFC and OATT Studies](#)
 - ▢ [Transmission Outage Schedule](#)
 - ▢ [Hurricane Dorian Outages](#)
 - ▢ [Archived Transmission Planning Documents](#)
 - ▢ [SCRTP Economic Transmission Planning Documents](#)
 - ▢ [Generator Interconnection Information](#)
 - ▢ [Informational Postings](#)
 - ▢ [DESC Order 845 Implementation](#)
 - ▢ [Links](#)
 - ▢ [News Archive](#)
 - ▢ [OATT Formula Rate Annual Update](#)
 - ▢ [Transmission Rates](#)
 - ▢ [Historical ACE Data](#)
 - ▢ [Contact Information](#)



[Production Node Login](#)



Welcome to the Dominion Energy South Carolina OASIS

SCE&G is now Dominion Energy South Carolina

For transaction purposes, we will continue to use the "SCEG" company code for transmission reservations and tags.

News and Announcements

Hourly and Daily PTP Service Discounted.

The offer price for Hourly and Daily PTP service has been discounted effective March 1st, 2019.

[Informational Postings](#)

Notice: This document was last updated January 06, 2020.

©2020 OATI webSmartOASIS® (2.9.0.2) - Open Access Technology International, Inc. All Rights Reserved.

DESC Planned Transmission Facilities

Dominion Energy South Carolina Planned Transmission Facilities	
Planned Project	Tentative Completion Date
Queensboro – Johns Island 115 kV Tie: Rebuild River and Marsh Crossing	Mar-23
Edenwood Sub: Replace Switch house	Sep-23
Eastover - Square D 115kV: Rebuild	Oct-23
Denny Terrace Sub: Replace Switch house	Dec-23
Church Creek - Ritter 230kV - Replace 25 Large Angles and Dead Ends	Dec-23
Queensboro - Ft Johnson 115 kV & Queensboro-Bayfront 115kV (Queensboro-James Island Sect)	Dec-23
Summerville: Replace and Spare 230-115kV 336MVA Auto Bank	Dec-23
Church Creek-Queensboro 115kV: Stono River Crossing	Dec-23
Square D - Hopkins 115kV: Rebuild	Jul-24
Cainhoy - Hamlin 115kV: Rebuild Line and Cainhoy – Hamlin 115 kV #2: Construct New 115 kV Line	Dec-24
Edenwood Sub: #1 & #2 230-115kV Autobanks, Replace with 336MVA	Dec-24
Waterree-Hopkins 230kV Line #2: Rebuild	Dec-24
Burton-St Helena 115kV: Rebuild Burton-Frogmore Transmission Section	Dec-24
Goose Creek Reservoir: Rebuild Transmission Line Crossings	Dec-24
Okatie 230-115kV Sub and the Jasper – Yemassee Fold In	Dec-24
Stevens Creek - Hooks 115kV/LR Plumb Branch 46kV Rebuilds	Dec-24
Jasper – Okatie 230 kV #2: Construct	Dec-24
Okatie-Bluffton 115kV: Rebuild	Dec-24
Orangeburg #1 - Cameron Jct 46kV Line Rebuild	Dec-24
Riverport Tap: Construct Tap	Dec-24
St George - Sumter 230kV Tie: Rebuild Line from Santee Substation - Duke/Progress Energy Tie	Dec-24
Hooks - Thurmond 115kV Tie Rebuild	Dec-24
Summerville 115 kV Loop Rebuild	Dec-25
Stevens Creek – Clarks Hill 115/46 kV Rebuild	Dec-25
Burton-St Helena 115kV: Frogmore Distribution - St Helena	Dec-25
Hopkins-CIP 230kV: Rebuild	Dec-25
Faber Place-Bayfront 115kV: Rebuild North Bridge Terrace to Bayfront Section	Dec-25
Harleyville 115kV Transmission Tap – Construct (1.4 miles)	Dec-25
Union Pier 115-13.8 kV Sub: Tap	Dec-25
Wagener 115kV Tap: Construct Tap	Dec-25
Williams St Sub: Replace Sw House & Relays and McMeekin Sub: Add Sw House	Dec-25
Canadys – Ritter 115kV: Rebuild as 230/115kV Double Circuit	Jun-26
Yemassee– Ritter 230kV #1 & #2: Construct SPDC with B-1272	Jun-26
Church Creek – Faber Place – Charleston Transmission: Add 230kV Line	Jun-26
VCS1-Denny Terrace 230kV & VCS1-Pineland 230kV: Rebuild Single Circuit Sections	Dec-26
Cameron – St Matthews 46kV: Rebuild	Dec-26
Waterree-Hopkins 230kV Line #1: Rebuild	Dec-26
Williams-Summerville 230kV: Upgrade to SPDC B1272 ACSR	May-27
Clements Ferry 115–23kV Sub: Construct; Jack Primus–Cainhoy 115kV with Clements Ferry Tap Construct	Dec-27
Waterree-Killian 230kV: Rebuild	Dec-28

DESC

2023 - 2028

Planned Transmission Facilities

Stevens Creek - Hooks 115kV/LR Plumb Branch 46kV Rebuilds

Project Description

Rebuilding the 9 mile section of line between Stevens Creek and Hooks Switching Station. These existing single circuit lines will be rebuilt Single Pole Double Circuit on existing R/W using steel poles, 115 kV insulation, and 1272 ACSR Conductor.

Project Need

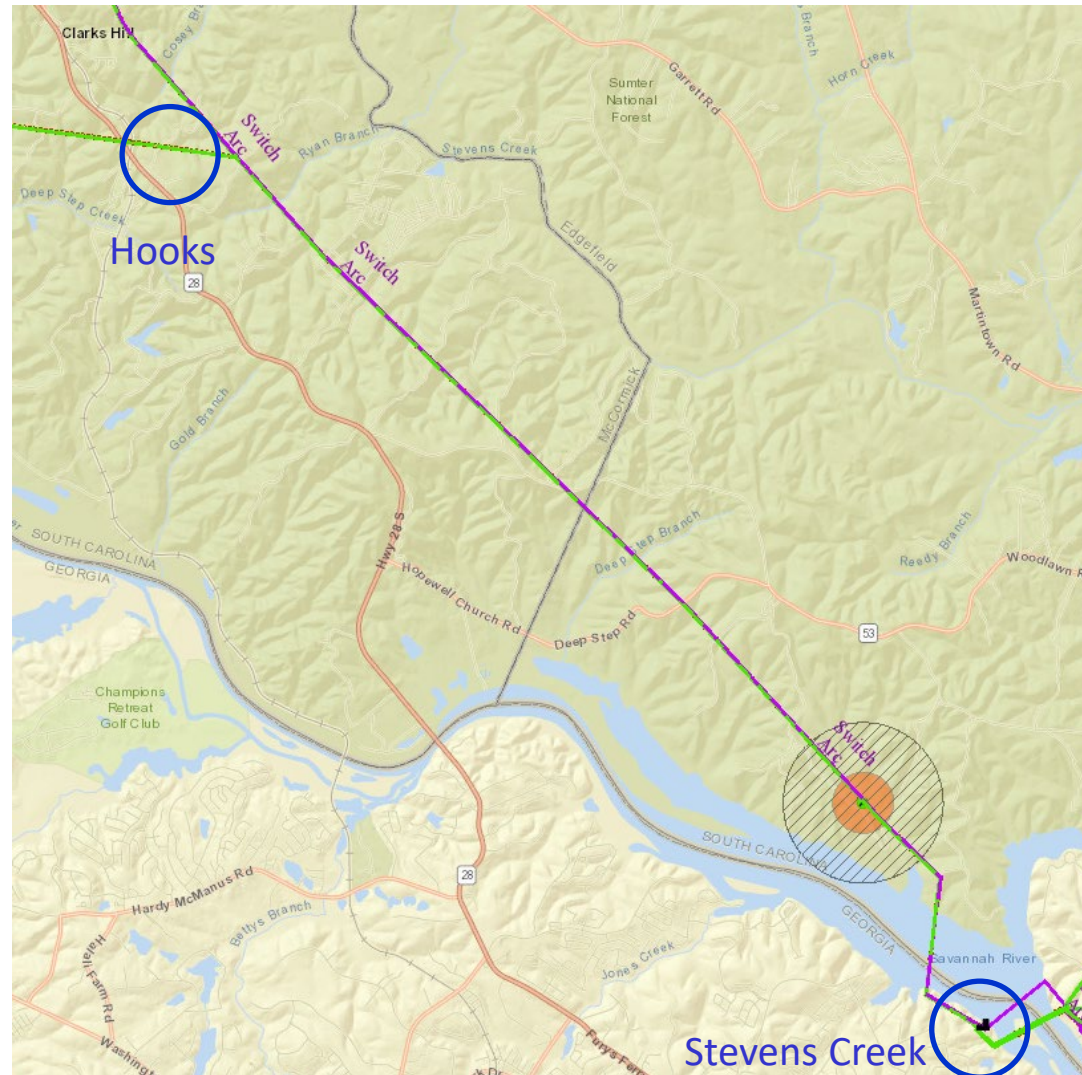
The 115 kV and 46 kV lines in this corridor were built in the mid to late 1970s have reached the end of their usable life.

Project Status

Planned

Planned In-Service Date

December 2024



Hooks - Thurmond 115kV Tie Rebuild

Project Description

Rebuilding the 2.3 mile section of line between Hooks and Thurmond. The line will be rebuilt on existing R/W using steel poles, 115 kV insulation, and 1272 ACSR conductor.

Project Need

This line was initially built in the 1960s and has reached the end of its usable life.

Project Status

Planned

Planned In-Service Date

December 2024



Okatie 230-115kV Sub and the Jasper – Yemassee Fold In

Project Description

Expand the Okatie transmission switching station by adding two 230kV line terminals and a 230-115kV autotransformer, and fold in the Jasper – Yemassee 230kV #1 line.

Project Need

This project is required for system reliability and maintainability.

Project Status

Planned

Planned In-Service Date

December 2024

Jasper – Okatie 230kV #2: Construct

Project Description

Construct a new 230kV line with B-1272 ACSR from Jasper to the Okatie 230/115kV Substation. The line will be called Jasper – Okatie 230kV #2.

Project Need

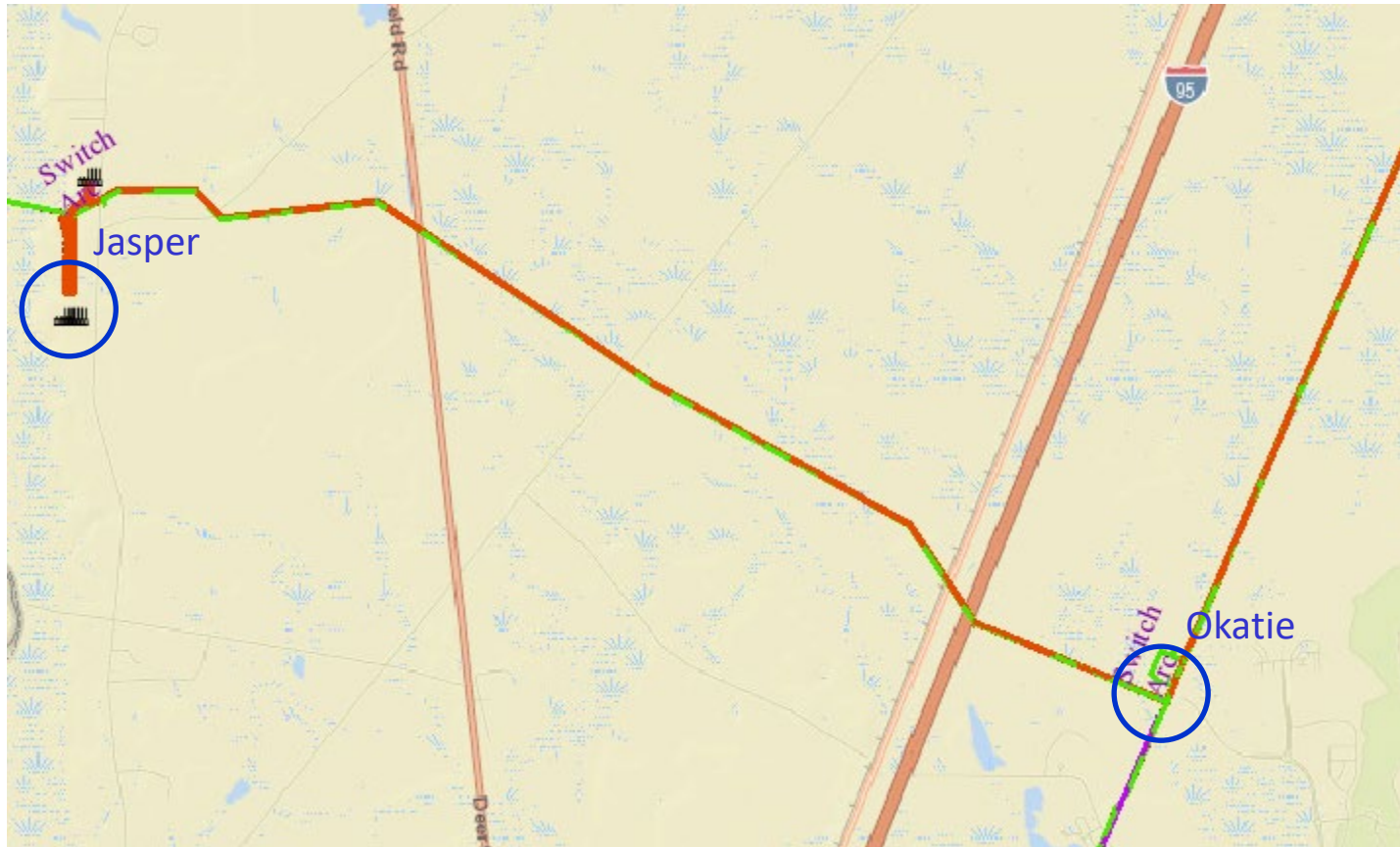
Load growth in the Bluffton area requires additional transmission capacity.

Project Status

Planned

Planned In-Service Date

December 2024



Orangeburg #1 - Cameron Jct 46kV Line Rebuild

Project Description

Rebuilding the 7.5 mile Calhoun County – St Matthews 46 kV Line. The line will be rebuilt on existing R/W using steel poles, 115 kV insulation, and 1272 ACSR Conductor.

Project Need

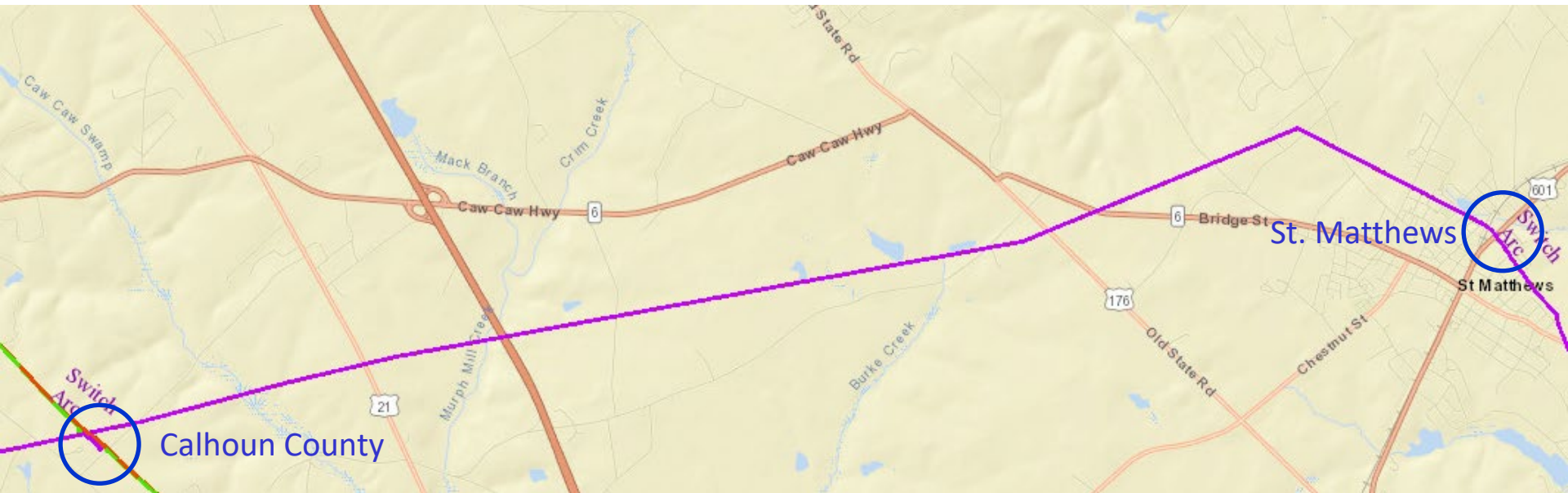
This line was originally constructed in the late 1940s and has reached the end of its usable life and has become a reliability concern.

Project Status

Planned

Planned In-Service Date

December 2024



St George - Sumter 230kV Tie: Rebuild Line from Santee Substation - Duke/Progress Energy Tie

Project Description

Replace Poles and upgrade 3 miles of conductor from the Santee Substation to the Duke Energy tie to 1272 ACSR.

Project Need

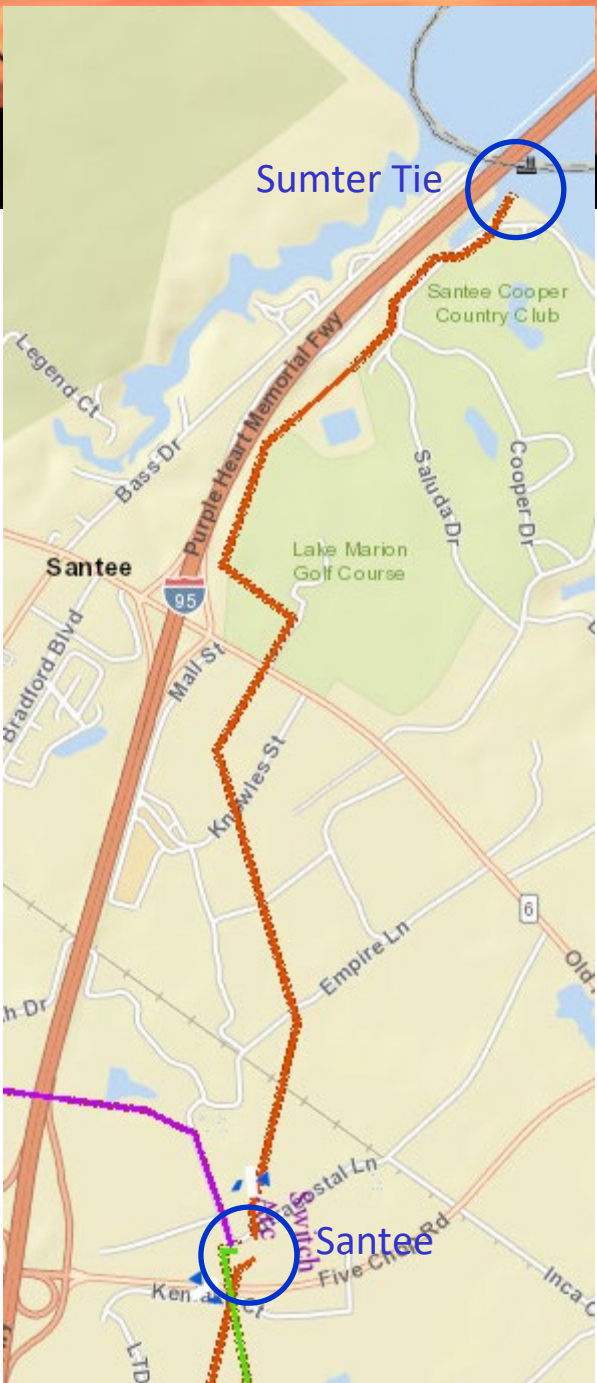
Grid Hardening.

Project Status

Planned

Planned In-Service Date

December 2024



Church Creek – Faber Place – Charleston Transmission: Add 230kV Line

Project Description

Church Creek – Faber Place – Charleston Transmission add 230kV line. Rebuild existing 230/115kV Double Circuit line from Church Creek – Faber Place with Bundled Conductor.

Project Need

Load growth in the Charleston area requires additional transmission capacity.

Project Status

Planned

Planned In-Service Date

June 2026



Canadys – Ritter 115kV: Rebuild as 230/115kV Double Circuit

Project Description

Rebuild the Canadys – Ritter 115kV line as SPDC with 230kV on one side and 115kV on the other (approximately 17.8 miles). The 230kV side will be built B-1272 ACSR and the 115kV side will be built 1272 ACSR.

Project Need

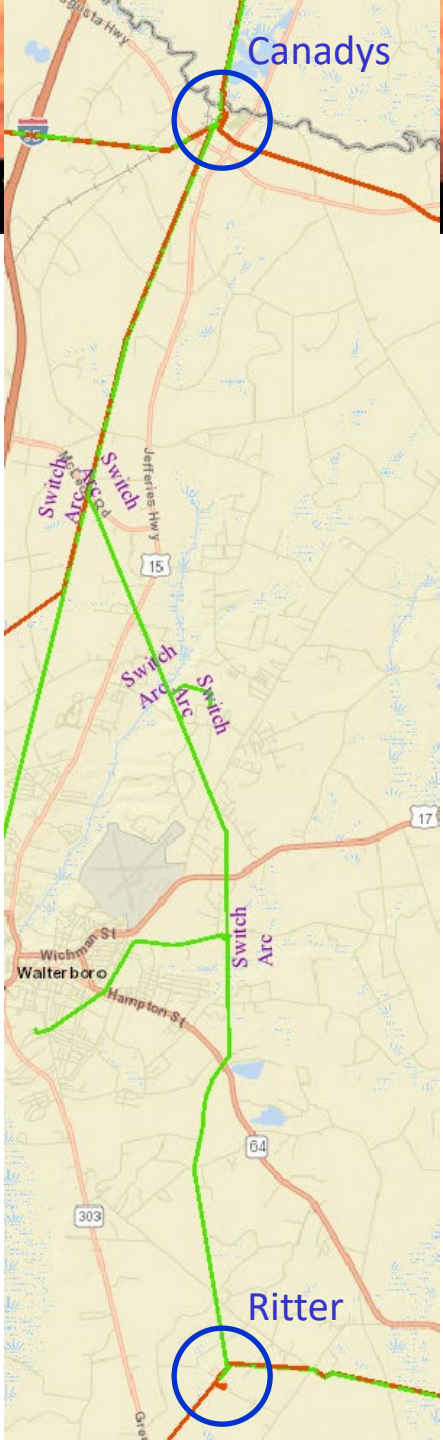
This project is required for system reliability and maintainability.

Project Status

Planned

Planned In-Service Date

June 2026



Ritter – Yemassee 230kV and 115kV Transmission System Expansion

Project Description

Construct Ritter – Yemassee 230kV #1 and #2 SPDC with B1272 ACSR on both sides, and convert the existing Ritter – Yemassee 230kV to 115kV operation, re-terminating it to new 115kV terminals at Ritter and Yemassee.

Project Need

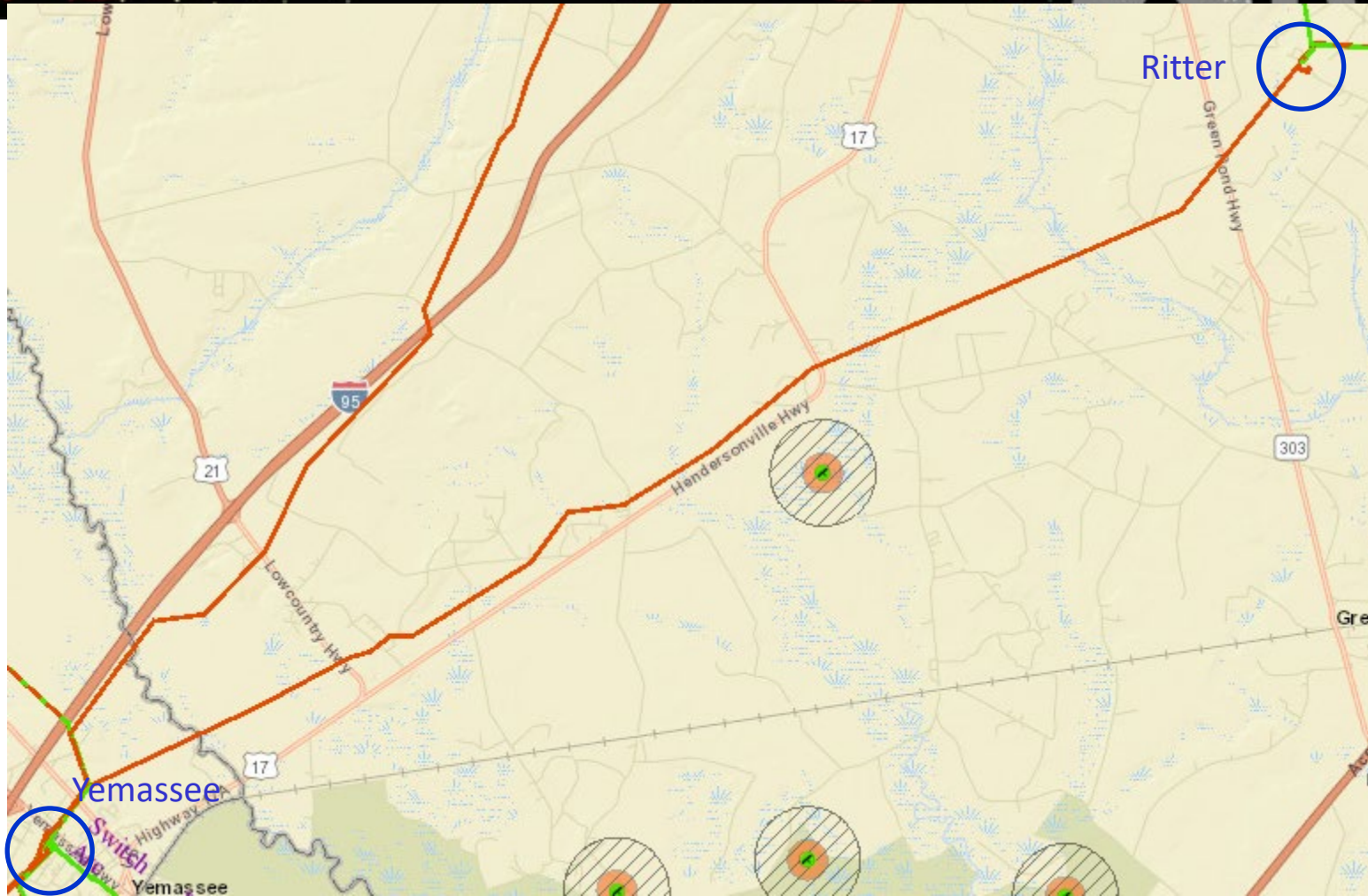
This project is needed to enhance system reliability, improve power flow, and mitigate potential overloads in the Yemassee, SC area by adding additional 230kV and 115kV paths for electrical power to flow out of the Yemassee substation.

Project Status

Planned

Planned In-Service Date

June 2026



Williams-Summerville 230kV: Upgrade to SPDC B1272 ACSR

Project Description

Upgrade approximately ten miles of the Williams - Summerville 230kV line with B1272 ACSR and new SPDC structures from Ladson Junction to A.M. Williams.

Project Need

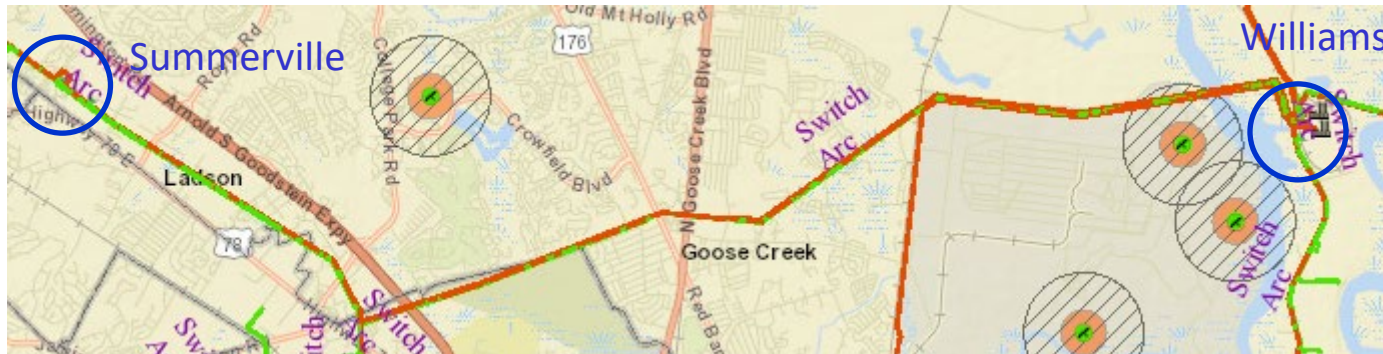
This project is required to alleviate overloading of the Williams – Summerville 230kV Line.

Project Status

Planned

Planned In-Service Date

May 2027



Questions?

Santee Cooper Major Transmission Expansion Plans

Jake Biddix

Transmission Projects 2023-2027



Project Title	In-service Date
Aiken 230-115 kV Transformer #2 Addition	11/01/2022
Yemassee 230 kV Station Improvements	03/30/2023
Johns Island – Queensboro (DESC) 115 kV Line	06/30/2023
Camp Hall North Loop 115 kV Line	03/31/2023
Wassamassaw 230-115 kV Substation	06/30/2024
Wassamassaw – Pringletown #2 115 kV Line	06/30/2024
Conway 230 kV Switching Station	09/01/2024
Marion – Conway 230 kV Line	09/01/2024
Kingstree 230 kV Series Bus Tie Breaker	12/01/2024
Clearpond 115-12 kV Substation	09/01/2025
Carolina Forest 230-115 kV Transformer #1 Addition	12/01/2025
Chime Bell 115 kV Switching Station	12/01/2025
Conway – Perry Road 230 kV Line	12/01/2025
Varnville to Robertville 69 kV Rebuild to 115 kV	12/01/2025
Cross – Wassamassaw 230 kV #2 Line	06/01/2026
Wassamassaw – Cane Bay 115 kV Line	06/01/2026
Rebuild Kingstree – Hemingway 115 kV Line as Double Circuit 230/115 kV Line	06/01/2027
Marion – Red Bluff 230 kV Line	12/01/2027

John's Island (SC)-Queensboro (DESC) 115 kV Line

Project Description

Construct a new 115 kV transmission line using 1272 ACSR conductor, approximately 6 miles in length, from the Johns Island 230-115 kV Substation to a mutually agreed upon location on Johns Island. Construct a new 115 kV line terminal at Johns Island 230-115 kV Substation.

Project Need

This new interconnection will provide an additional transmission source to Johns Island, which will mitigate contingency conditions that could result in significant load loss, thus increasing transmission reliability to the Johns Island area.

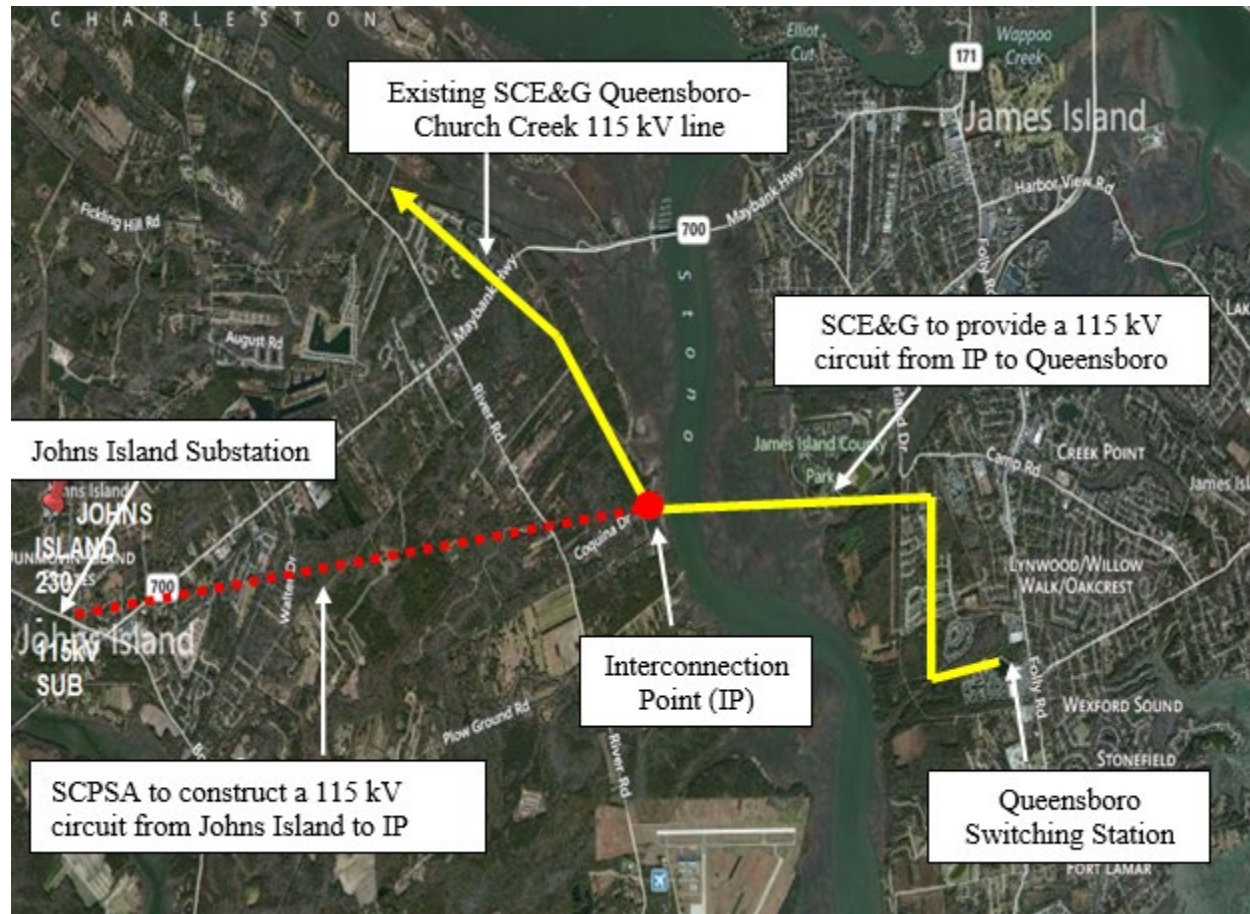
Project Status

In Progress

Planned In-Service Date

June 2023

John's Island (SC)-Queensboro (DESC) 115 kV Line



Wassamassaw 230-115kV Substation

Project Description

Fold in the existing Carnes-Cross 230 kV line and Jefferies-Harleyville 115 kV line into the new Wassamassaw 230-115kV Substation with the addition of two 230-115 kV transformers. Additional line terminal(s) and capacitor bank will be added as part of the initial requirements.

Project Need

Additional support is required for load growth in the Dorchester and Berkeley County area. This project is necessary to mitigate thermal loading issues under contingency conditions. The Wassamassaw 230-115kV Substation will be configured such that additional facilities can be added to provide support for continued load growth in the area.

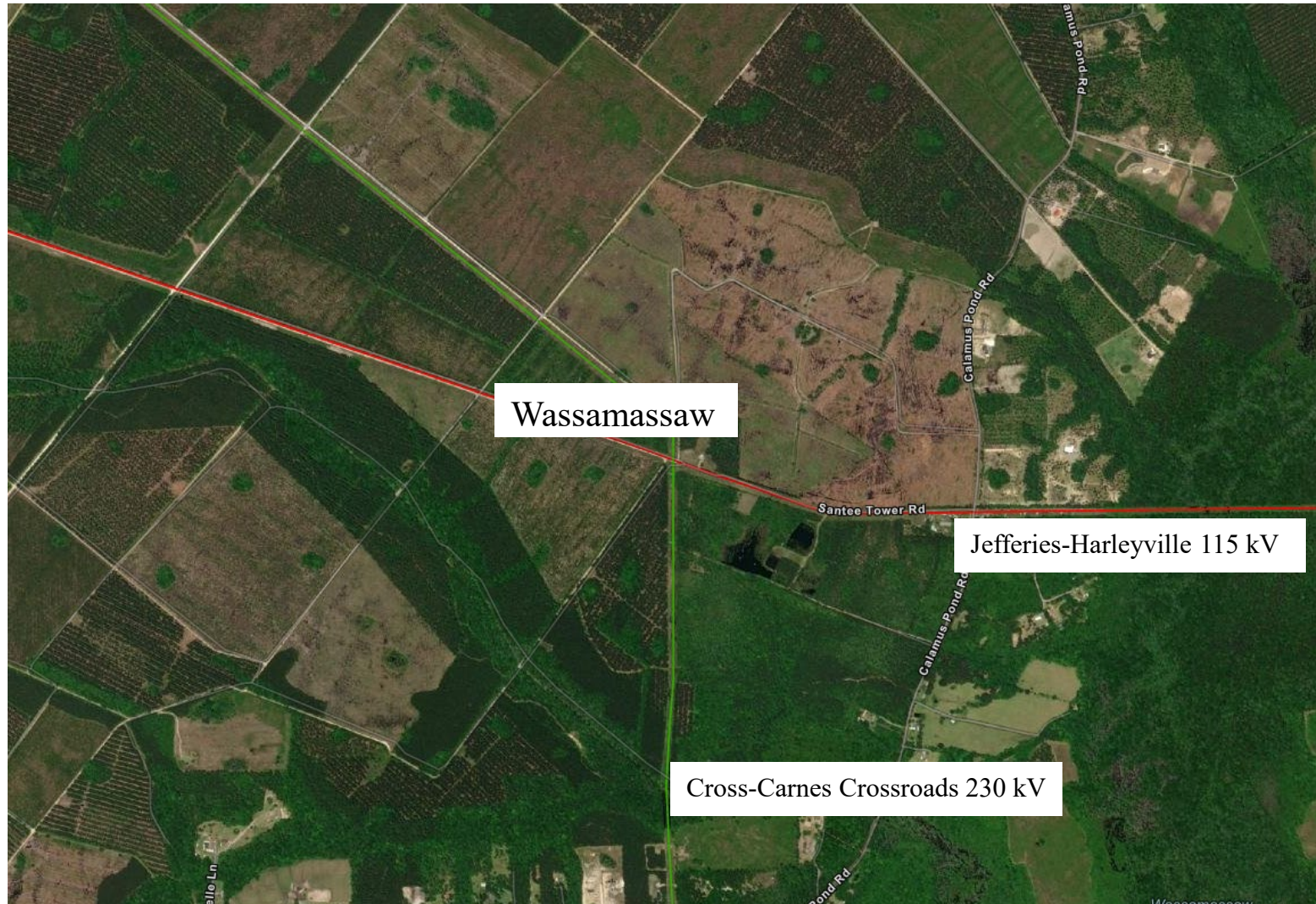
Project Status

In progress

Planned In-Service Date

June 2024

Wassamassaw 230-115 kV Substation



Wassamassaw – Pringetown 115 kV line #2

Project Description

Construct a new 115 kV transmission line, approximately 7 miles in length, from the Wassamassaw 230-115 kV Substation to the Pringletown 115 kV Switching Station using 1272 ACSR 45/7 conductor rated for 1200 Ampere continuous operation.

Project Need

In addition to the proposed Wassamassaw 230-115 kV substation, this 115 kV line will provide additional load serving capability for the anticipated load growth in the Camp Hall Commerce Park area.

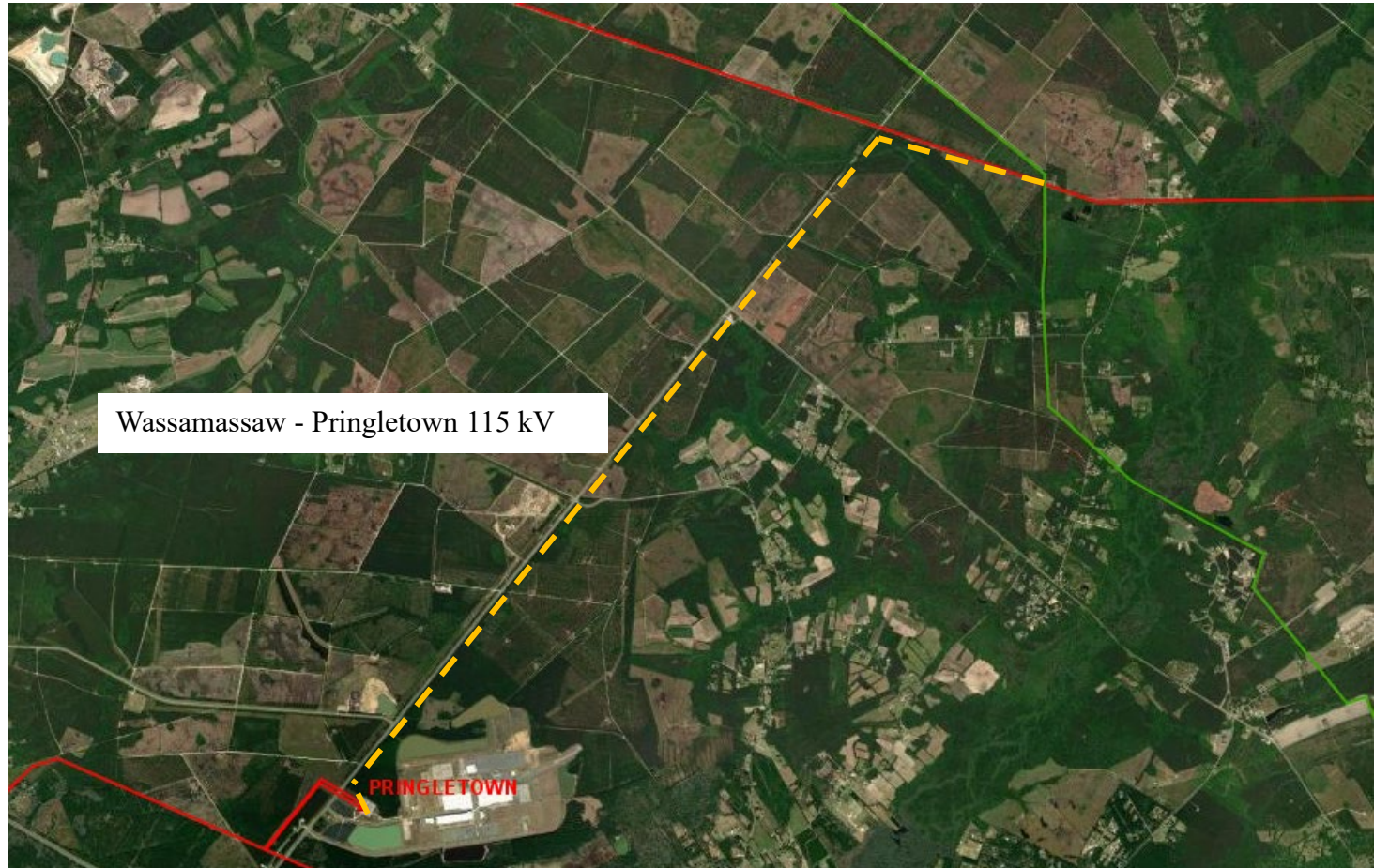
Project Status

In progress

Planned In-Service Date

June 2024

Wassamassaw – Pringletown 115 kV



Conway 230 kV Switching Station and Marion-Conway 230 kV Line

Project Description

Fold the Hemingway-Red Bluff 230 kV Line into the new Conway 230 kV Switching Station. Construct a 230 kV line approximately 34 miles in length from the Marion 230-115-69kV Substation to the Conway 230 kV Switching Station. Rebuild the existing Marion-Conway 115 kV Line for 230/115 kV double-circuit using bundled 1272 ACSR for the 230 kV line and single 795 ACSR for the 115 kV line.

Project Need

Studies indicate thermal loading and voltage violations under contingency conditions in the Horry-Georgetown area that are mitigated by the additional support that the Marion-Conway 230 kV Line provides. The new Conway Switching Station will also enable additional 230 kV network expansion in the area.

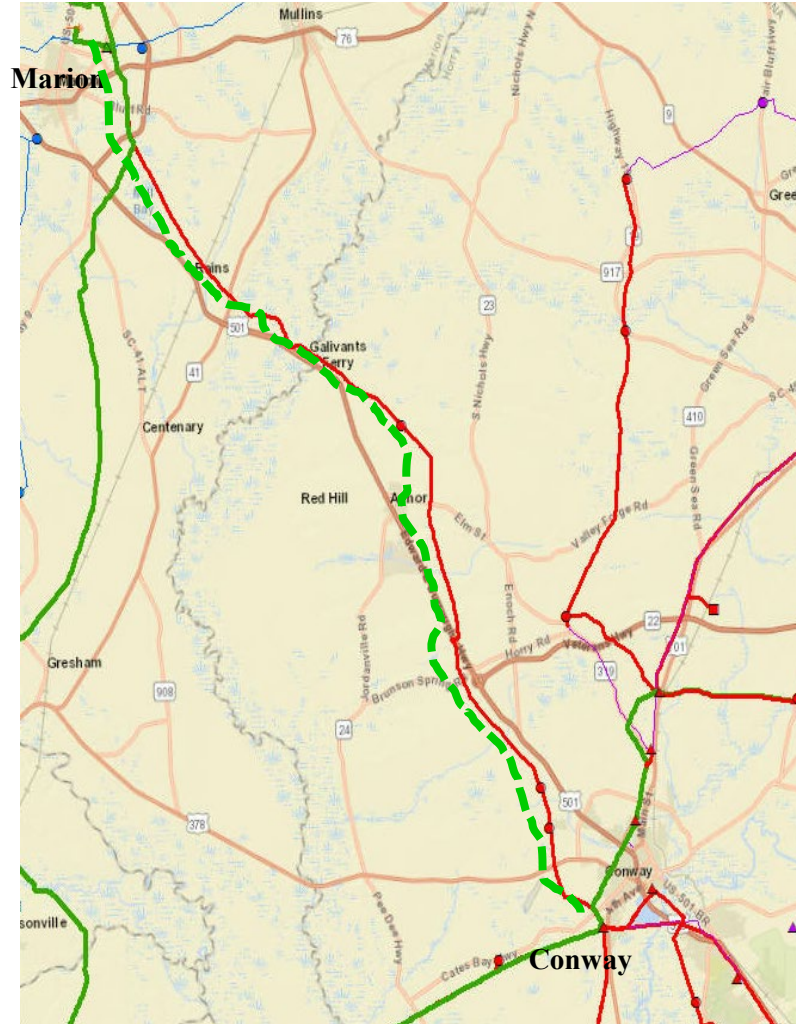
Project Status

In Progress

Planned In-Service Date

September 2024

Conway 230 kV Switching Station Marion-Conway 230 kV line



Kingstree 230 kV Series Bus Tie Breakers

Project Description

Reconfigure the Kingstree 230 kV Switching Station as required to install a second 230 kV Bus Tie Breaker in series with the existing 230 kV Bus Tie Breaker. Install redundant bus differential protection relays.

Project Need

The intent of this project is to mitigate thermal loading and voltage violations in multiple regions of the transmission system by eliminating a specific contingency that would result in loss of all 230 kV facilities at this station.

Project Status

Planned

Planned In-Service Date

December 2024

Carolina Forest 230-115 kV Transformer #1 Addition

Project Description

Extend the existing 230 kV bus at Carolina Forest 230-115kV Substation to install a second 230-115 kV transformer to operate in parallel to the existing transformer.

Project Need

Additional transformer at this substation will provide additional transformer capacity required to serve this area and alleviate thermal loading concerns on the existing transformer at this location under contingency conditions.

Project Status

Planned

Planned In-Service Date

December 2025

Conway – Perry Road 230 kV Line

Project Description

Construct a new 230 kV line between the Conway 230 kV Switching Station and the Perry Road 230-115 kV Substation using bundled 1272 ACSR conductor.

Project Need

The Conway – Perry Rd 230 kV Line will provide an additional path into the load center in the Myrtle Beach area and alleviate thermal loading under contingency conditions.

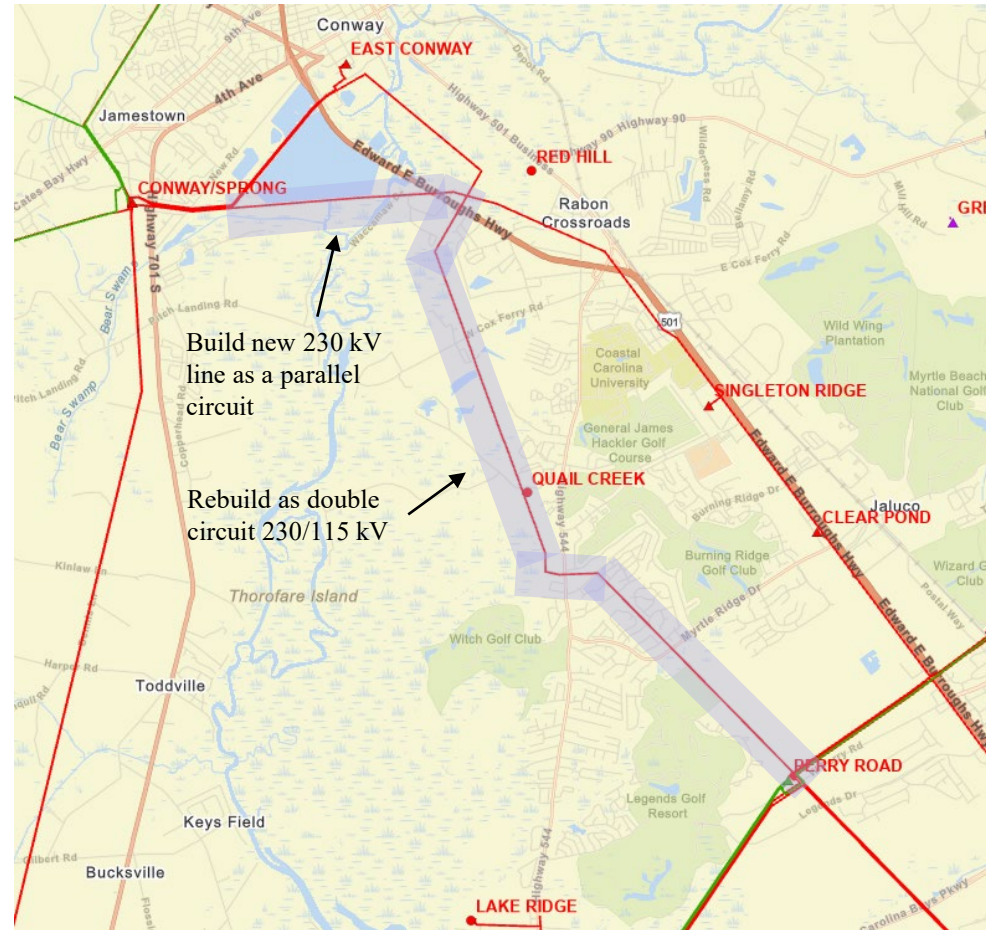
Project Status

Planned

Planned In-Service Date

December 2025

Conway – Perry Road 230 kV line



Cross – Wassamassaw 230 kV #2 Line

Project Description

Construct a second 230 kV transmission line, approximately 18.3 miles in length, from the Cross 230 kV Switchyard to the Wassamassaw 230-115 kV Substation along existing transmission right-of-way and using pre-existing double-circuit structures where possible

Project Need

Adding a second Cross – Wassamassaw 230 kV line will provide thermal loading relief under certain contingencies out of the Cross Switchyard.

Project Status

Committed

Planned In-Service Date

June 2026

Cross – Wassamassaw 230 kV #2 line



Wassamassaw – Carnes (via Cane Bay) 115 kV Line

Project Description

Construct a new 115 kV transmission line, approximately 6.45 miles, from the Wassamassaw 230-115 kV Substation to the Cane Bay 115 kV tap using existing right-of-way where possible.

Project Need

The addition of this transmission line will provide thermal loading relief for the Carnes area under certain contingencies.

Project Status

Committed

Planned In-Service Date

June 2026

Wassamassaw – Cane Bay 115 kV line



Rebuild Kingstree – Hemingway 115 kV Line as a Double Circuit 230/115 kV Line

Project Description

Construct a second 230 kV line, approximately 22 miles, from the Kingstree 230 kV Switching Station to the Hemingway 230-115 kV Substation by rebuilding the existing Kingstree – Hemingway 115 kV line for double circuit 230/115 kV construction.

Project Need

This additional 230 kV line from Kingstree to Hemingway will help provide thermal loading relief and voltage support for the eastern area. This line also creates an additional path to the eastern area.

Project Status

Committed

Planned In-Service Date

June 2027

Kingstree – Hemingway 230/115 kV line



Marion – Red Bluff 230 kV Line

Project Description

Construct a new 230 kV transmission line from the Marion 230-115/230-69/115-69 kV Substation to the Red Bluff 230-115 kV Substation with bundled 1272 ACSR conductor rated for 2400 Ampere minimum continuous operation at 230 kV. Existing right-of-way will be used where possible, but new right-of-way will need to be obtained.

Project Need

This new 230 kV line will mitigate thermal overload and low voltages seen in the eastern area during multiple contingencies. The line will also provide necessary support to maintain system reliability.

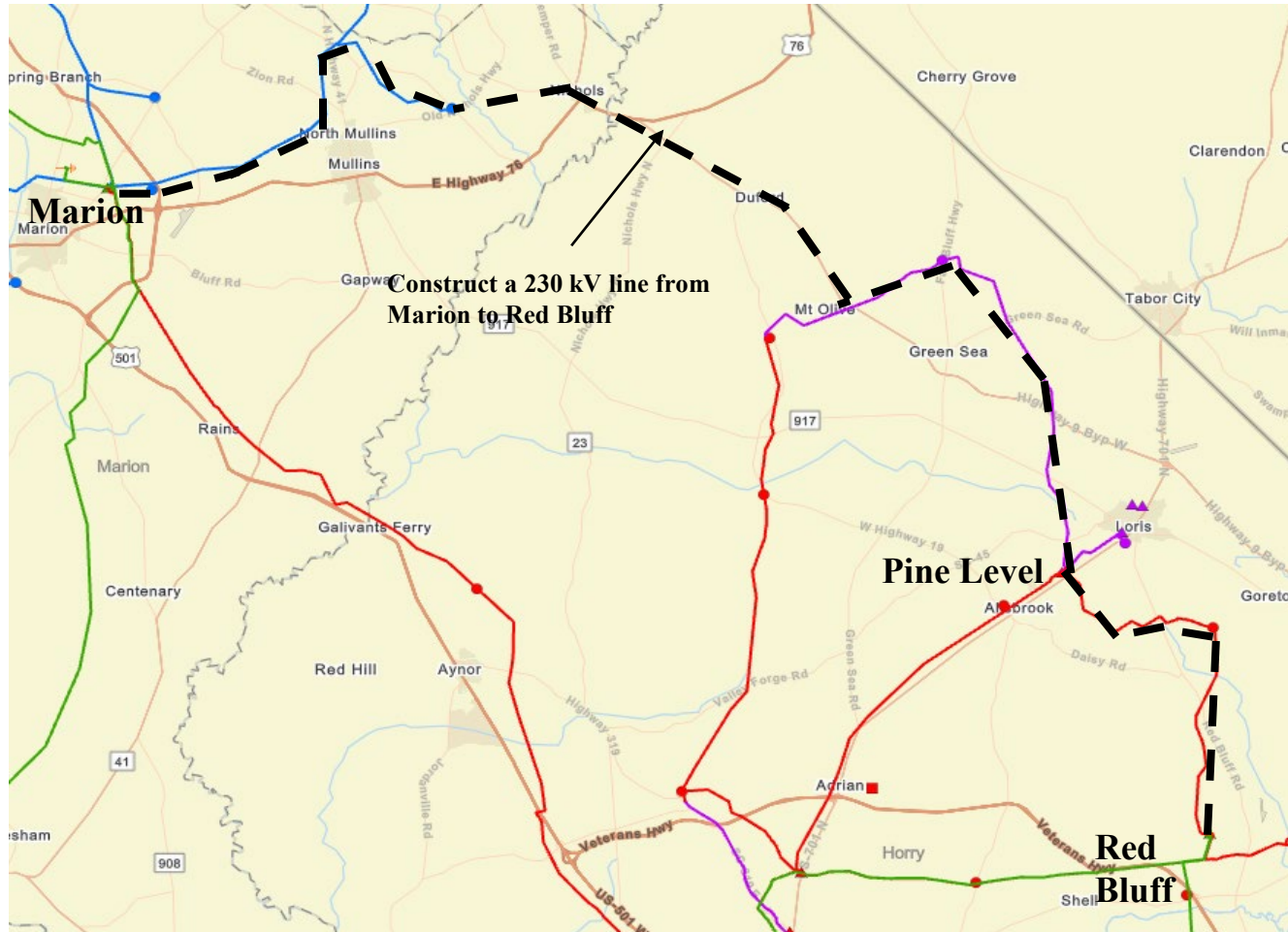
Project Status

Committed

Planned In-Service Date

December 2027

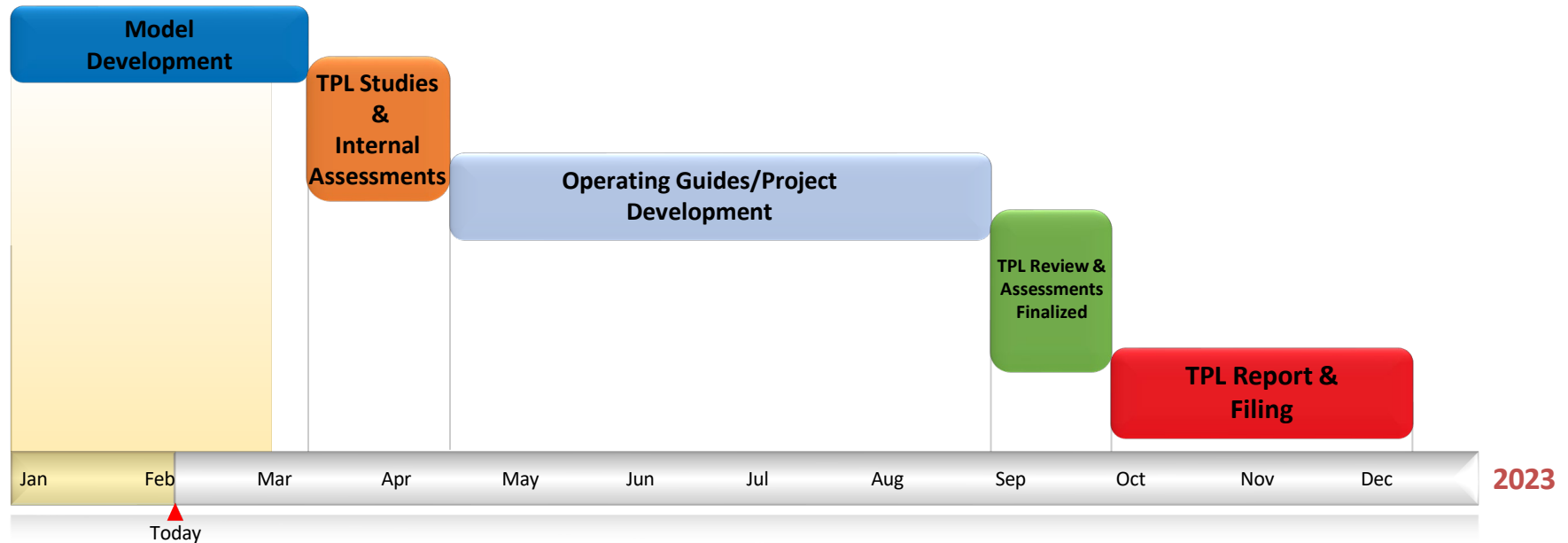
Marion – Red Bluff 230 kV line



Santee Cooper Transmission Expansion Plans

Questions?

Reliability Transmission Planning Studies Timeline



Next SCRTP Meeting

- Stakeholders will select up to 5 Economic Transmission Planning Studies
- Request Form will be posted on SCRTP website
- Review and discuss Multi-Party Assessment Studies
- SCRTP Email Distribution List will be notified
- Register online

South Carolina Regional Transmission Planning

Stakeholder Meeting

Teams

February 22, 2023