

South Carolina Regional Transmission Planning Stakeholder Meeting

Webex

February 5, 2020

Purpose and Goals for Today's Meeting

- Review and Discuss Key Assumptions and Data for the Next Planning Cycle
- Regional Transmission Planning Activities
- 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

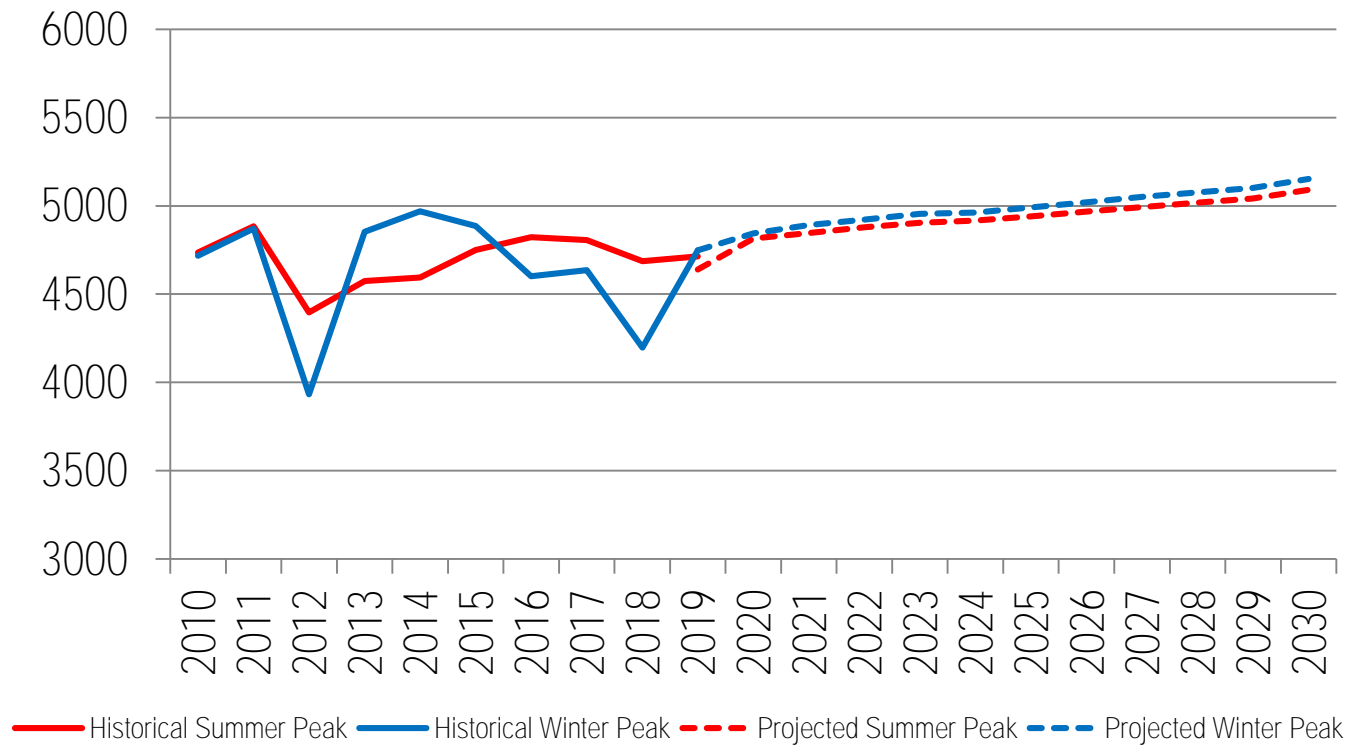
Resource Planning Input

- 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

DESC 10 Year Load Forecast

	<u>Summer</u>		<u>Winter</u>
2020	4,816 MW	2020/2021	4,844 MW
2021	4,847 MW	2021/2022	4,891 MW
2022	4,879 MW	2022/2023	4,924 MW
2023	4,905 MW	2023/2024	4,955 MW
2024	4,916 MW	2024/2025	4,964 MW
2025	4,941 MW	2025/2026	4,992 MW
2026	4,967 MW	2026/2027	5,022 MW
2027	4,993 MW	2027/2028	5,051 MW
2028	5,019 MW	2028/2029	5,076 MW
2029	5,041 MW	2029/2030	5,102 MW

Load Forecast Resource Planning Input



Load Forecast Process

Transmission Planning Input

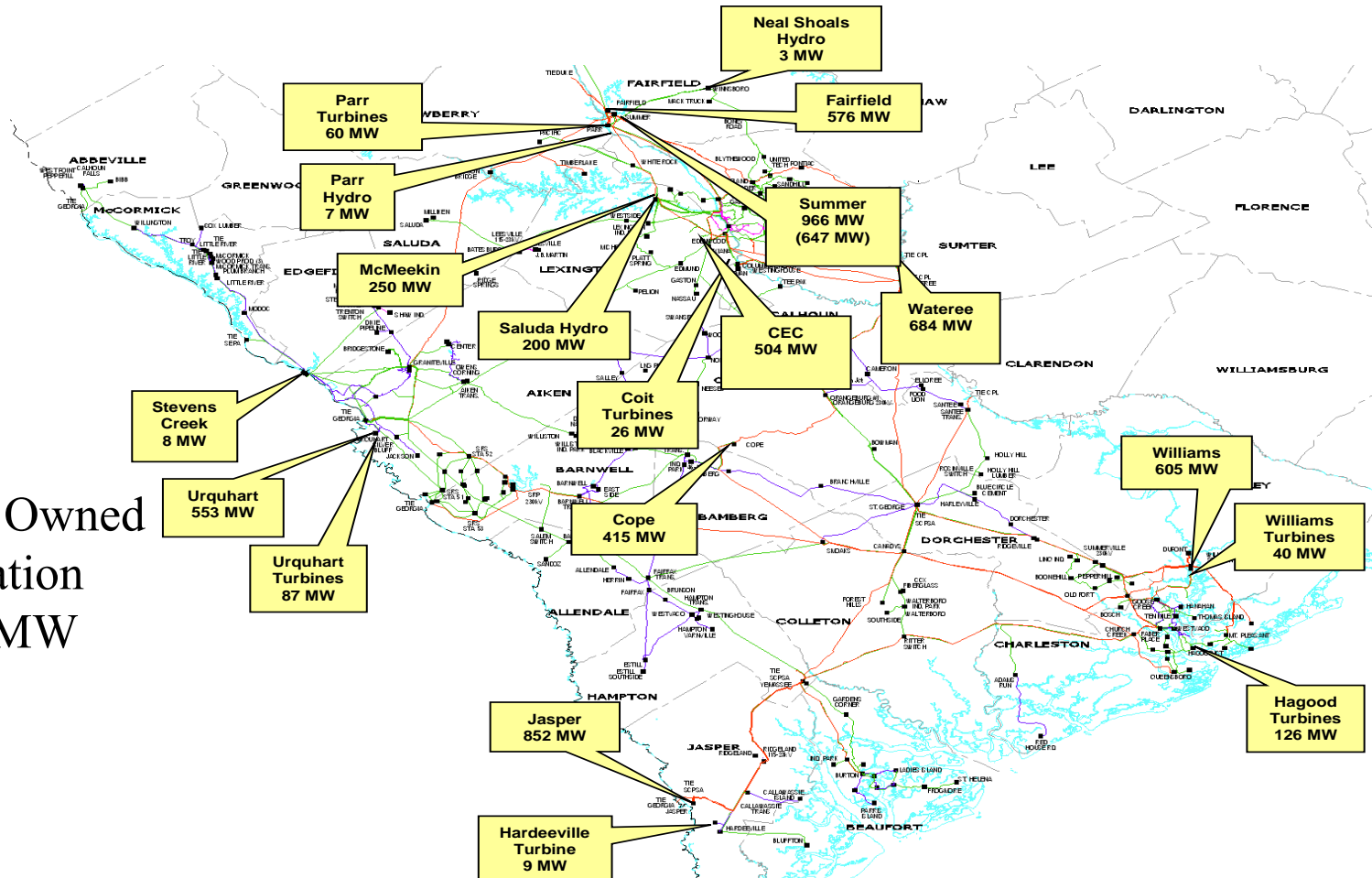
- Obtain summer and winter snapshot meter data from most recent seasons and adjust for load switching
- Develop 10 year projected forecast based on:
 - 10 year historical loading
 - Feedback from Distribution Planning, Local Managers, Large Industrial Group and Transmission Services Manager
- Wholesale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

Modeling Assumptions and Data

Generation

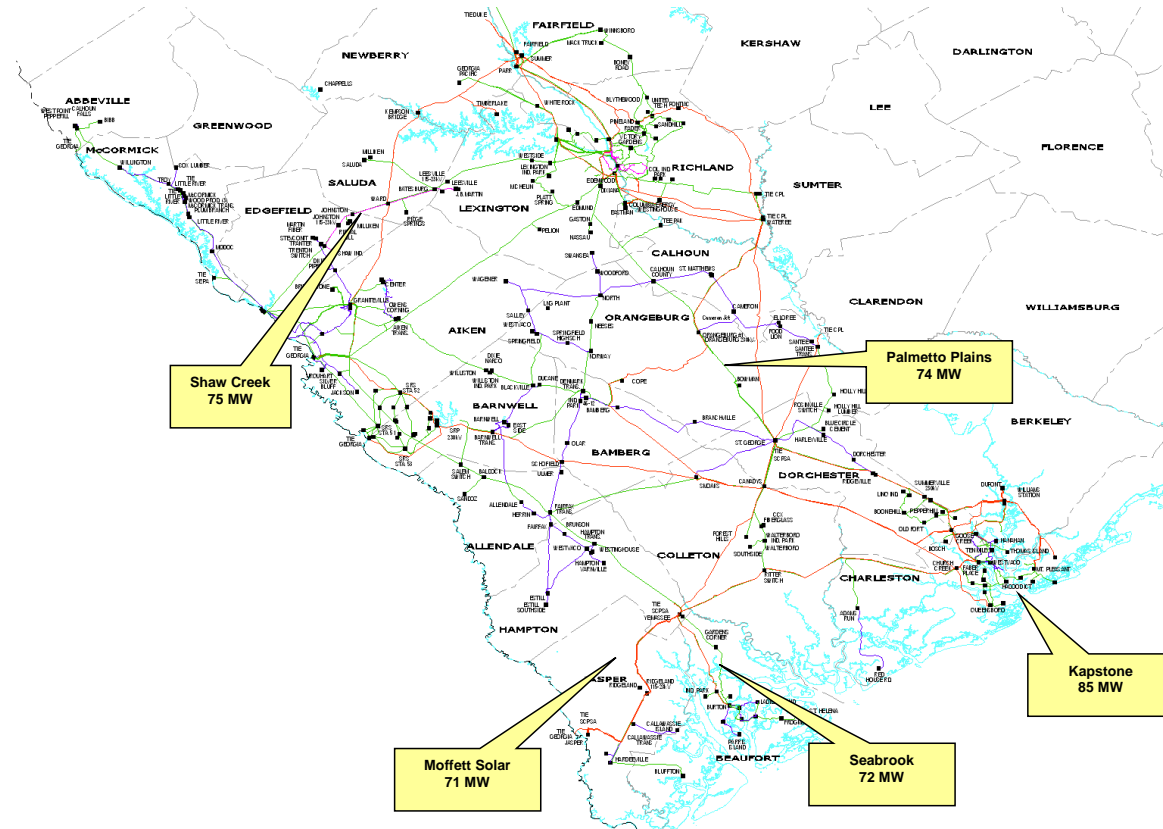
- Annual generator ratings used
- Input from Generation Expansion Plan – Reductions/Additions
- Input from Generation Maintenance Schedule
- Generators dispatched economically
- Merchant Generators included, modeled at contracted output

Existing Generation



DESC Owned
Generation
5,657 MW

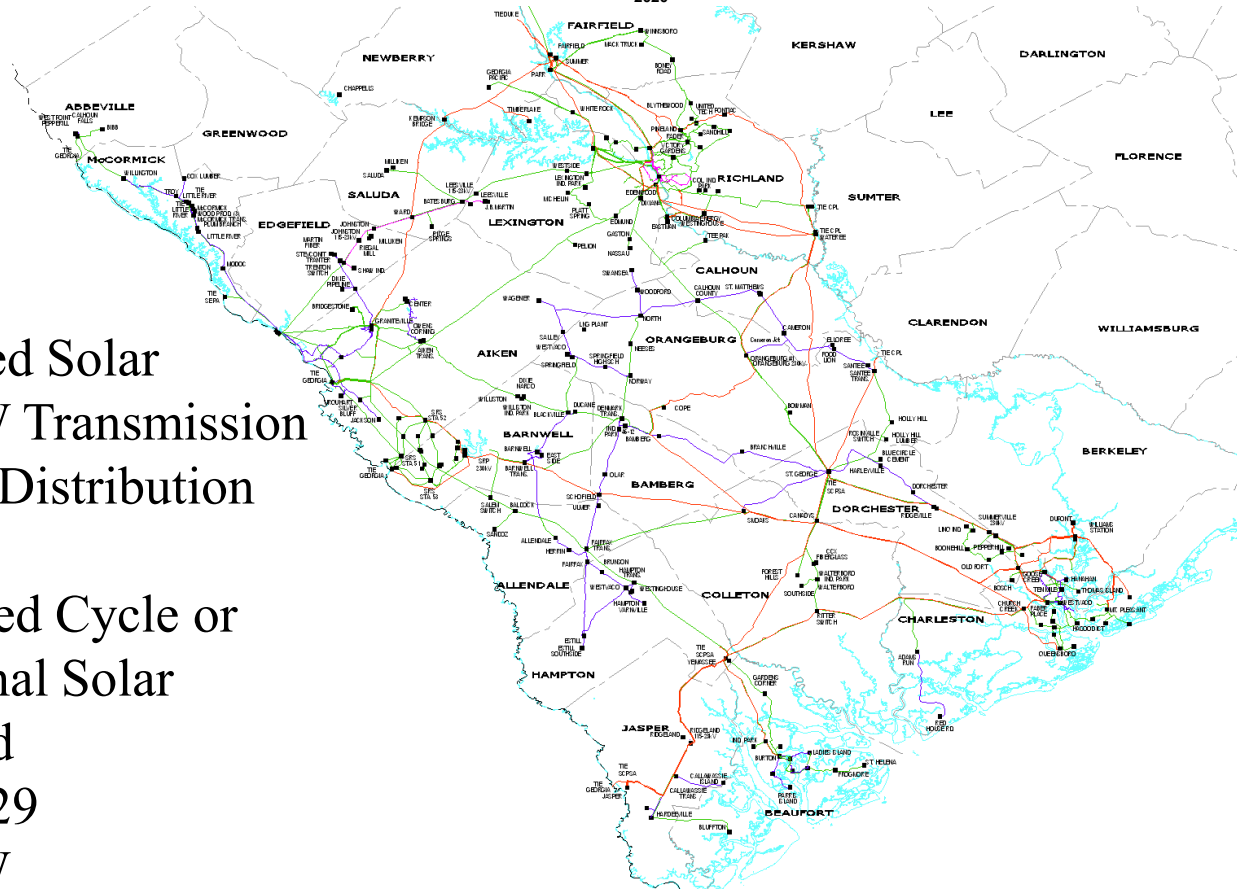
Merchant Generation



Additional Dispersed
Solar Generation
484 MW Transmission
158 MW Distribution

Future Generation Additions

2020



Dispersed Solar
437 MW Transmission
40 MW Distribution

Combined Cycle or
Additional Solar
Not sited
Year 2029
540 MW

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
Thomas Island - Jack Primus 115 kV Line: Acquire R/W & Construct	Feb-20
Saluda Hydro-Denny Terrace 115kV: Broad River Rebuild	Apr-20
Hugh Leatherman 115 kV Tap: Construct	Apr-20
Lake Murray-Lexington Jct 115kV: String 1272 ACSR	May-20
Lake Murray - Michelin 115 kV: Pull new wire on existing structure / Rebuild as Double Circuit	May-20
Cope - Denmark 115 kV: Upgrade to 1272 ACSR from Denmark Sub to Str. 68	May-20
Hooks 115kV Switching Station: Construct	May-20
Urquhart - Graniteville - South Augusta 230/115 kV Tielines	Jun-20
Saluda Hydro - Denny Terrace & Lake Murray - Harbison	Oct-20
Batesburg-Gilbert 115 kV Line	Dec-20
Briggs Rd-Stevens Creek 115kV: Rebuild	Dec-20
Stevens Creek - Briggs Road Tie-line Construct	Dec-20
Bluffton - (SCPSA) Bluffton 115 kV Tie Line Construct	Dec-20
Williams Street - Park Street 115 kV: Construct	Dec-20
Pepperhill - Summerville 230 kV Construct	Jan-21
Edmund - Pelion Tap 115 kV Line	Jan-21
Church Creek-Faber Place 230kV & 115kV: Rebuild the Ashley River Crossing	May-21
Emory 230 kV Distribution Sub: Construct	May-21
Queensboro - Ft Johnson 115 kV Tap	May-21
Canadys 230 kV: Add Back-to-Back Bus Tie Breakers	Jun-21
Canadys 230 kV Sub: Reterminate Various Lines	Jun-21
Urq Jct - Toolbeck 230 kV Fold In	Dec-21
Lake Murray - Gilbert 115 kV Line	Dec-21
Lex Westside - Gilbert 115 kV Line	Dec-21
Batesburg - Ward 115 kV Line	Dec-21
Trenton - Briggs Rd 115 kV Line	Dec-21
Toolebeck - Aiken 230kV Tie: Construct	Dec-21
Coit - Gills Creek 115 kV Line: Construct	Dec-22
Burton - Yemassee 115 kV #2 Line Rebuild as Double Circuit	Dec-22
Stevens Creek-Ward-Lake Murray Line and Associated System Hardening Construct	Mar-23
Union Pier 115-13.8 kV Sub: Tap Construct	Dec-24
Canadys - Ritter 115 kV: Rebuild as 230/115 kV Double Circuit	May-27

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

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

Bluffton-Market Place #2 115 kV Line Phase I	6/1/2020
Bluffton 230-115 kV Substation: Add 115 kV tie (DESC)	12/1/2020
Pomaria-Sandy Run 230 kV Line	12/15/2020
Briggs Road 115 kV Tie Line with DESC	12/31/2020
Series Bus Tie Breakers at Hemingway 230-115 kV substation	6/1/2021
Carnes Crossroads Transformer #3	6/1/2021
Rebuild N. Charleston-Goose Creek 115 kV Line Section	12/1/2021
John's Island (SC)-Queensboro (DESC) 115 kV Line	12/31/2021
Aiken 230 kV Tie Line with DESC	12/31/2021

Generation Resources

Existing Transmission Connected Generation

Cross Units 1- 4

J.S. Rainey Combined Cycle PB1

Winyah Units 1- 4 (Plant to retire in phases
by end of 2027)

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

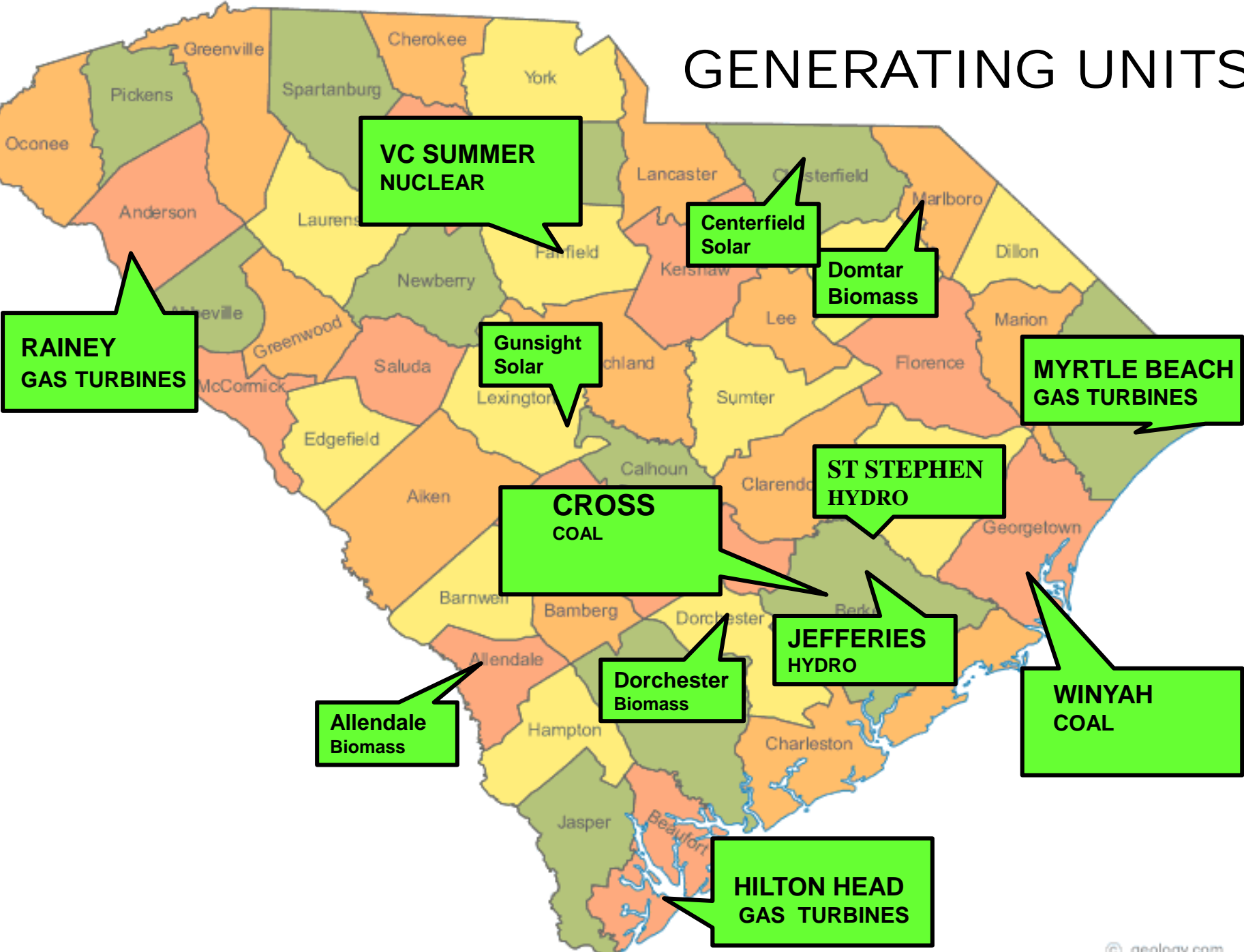
Dorchester (Merchant)

Domtar (Merchant)

Centerfield (Merchant COD 10/2021)

Gunsight (Merchant COD 6/2021)

GENERATING UNITS



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

Andy Underwood

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.



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.

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DESC Planned Transmission Facilities

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Canadys - Ritter 115 kV: Rebuild as 230/115 kV Double Circuit	May-27

DESC

2020

**Planned Transmission
Facilities**

Thomas Island – Jack Primus 115 kV Line: Construct

Project Description

Construct a new 115 kV line from the Thomas Island substation to the new Jack Primus substation with 1272 ACSR conductor. Total line length approximately 4 miles.

Project Need

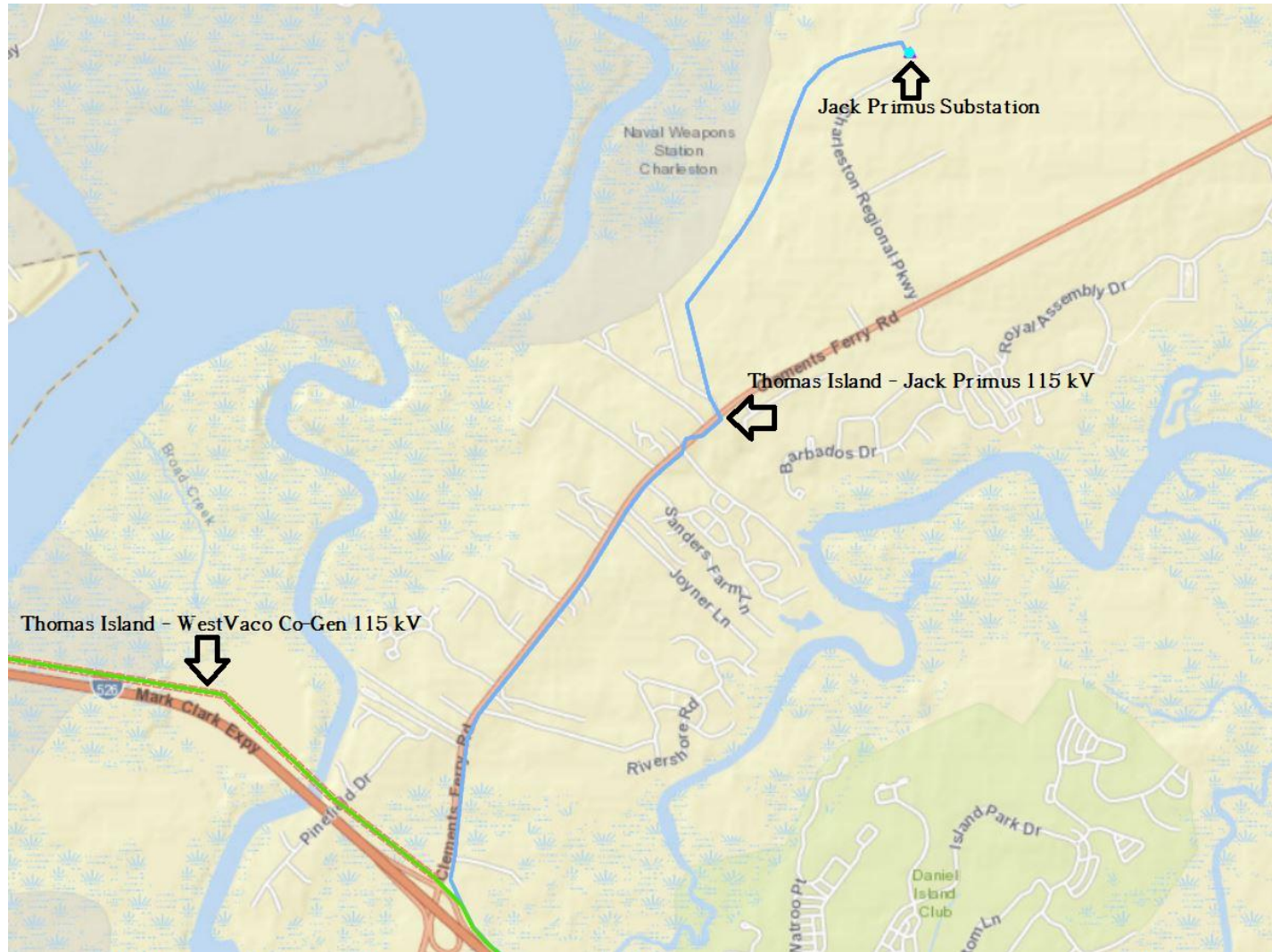
System load growth in the Thomas Island area requires additional transmission capacity.

Project Status

Planned

Planned In-Service Date

February 2020



Saluda Hydro-Denny Terrace 115kV: Broad River Rebuild and Lake Murray – Harbison 115 kV: Re-terminate Saluda Hydro – Harbison and rebuild SPDC

Project Description

Re-terminate the Saluda Hydro – Harbison 115 kV line to Lake Murray substation in preparation for the SPDC rebuild of the Lake Murray – Harbison 115 kV which will add an additional line to create Saluda Hydro – Denny Terrace 115 kV line.

Project Need

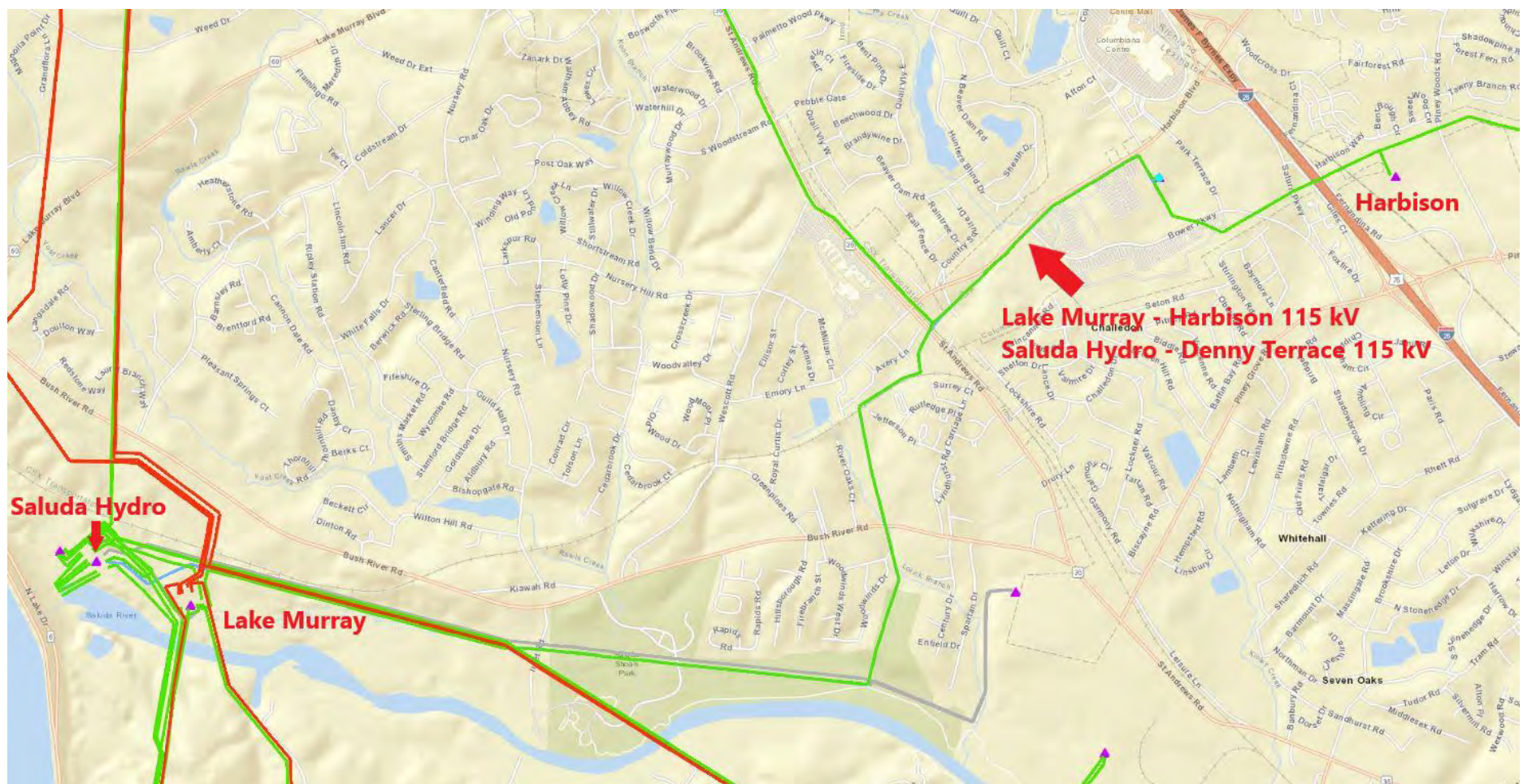
System growth in the Irmo, Harbison, Piney Woods Road, and Kingswood areas requires additional 115 kV capacity and transmission path to increase reliability.

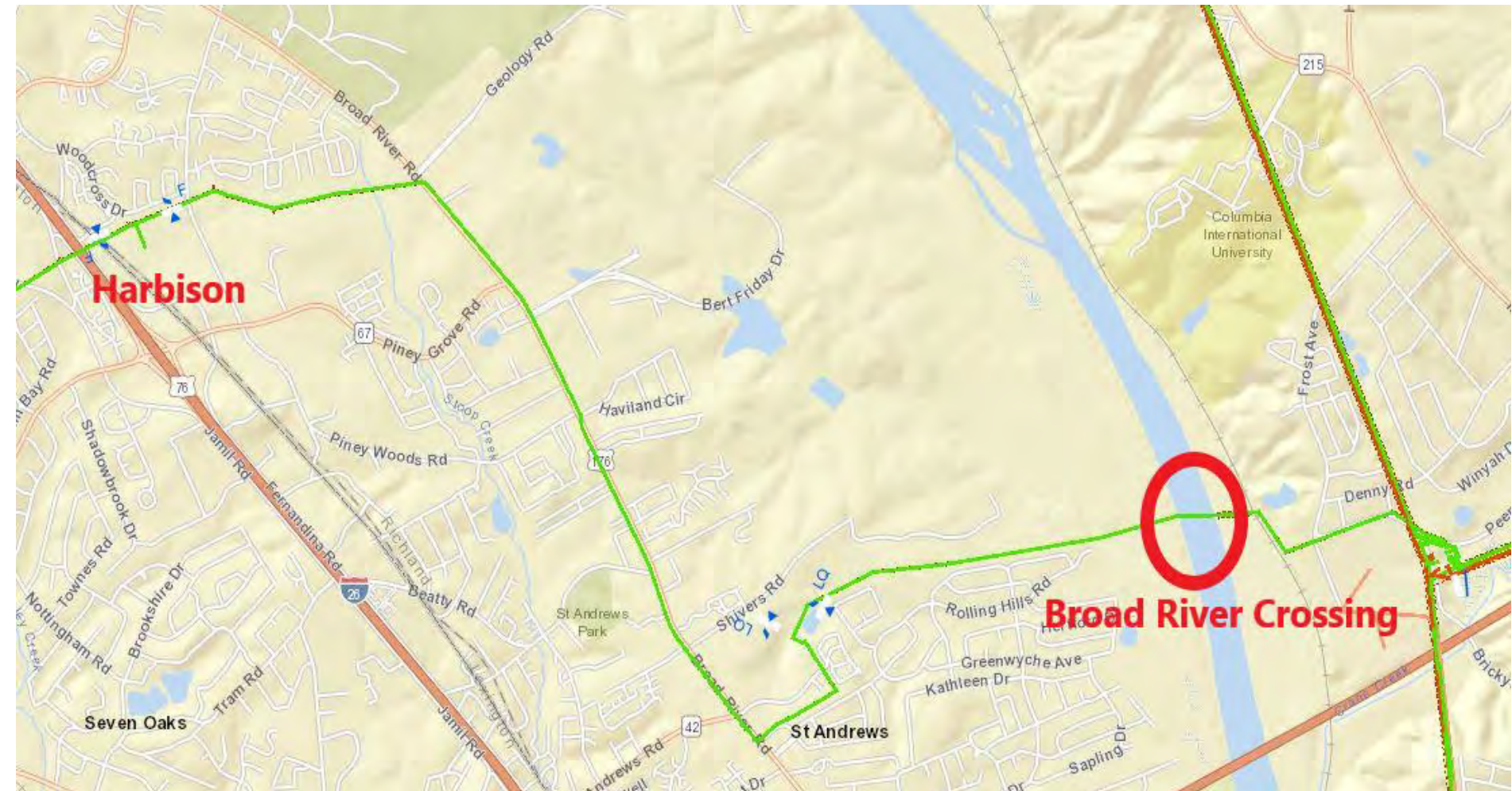
Project Status

In Progress

Planned In-Service Date

April 2020 / October 2020





Hugh Leatherman 115 kV Tap: Construct

Project Description

Construct a new 115 kV tap line from the Charlotte Street – Faber Place 115 kV line to the new Hugh Leatherman substation with 1272 ACSR conductor. Route will be determined by the siting study that is currently underway. Route assumed to be approximately 1.6 miles.

Project Need

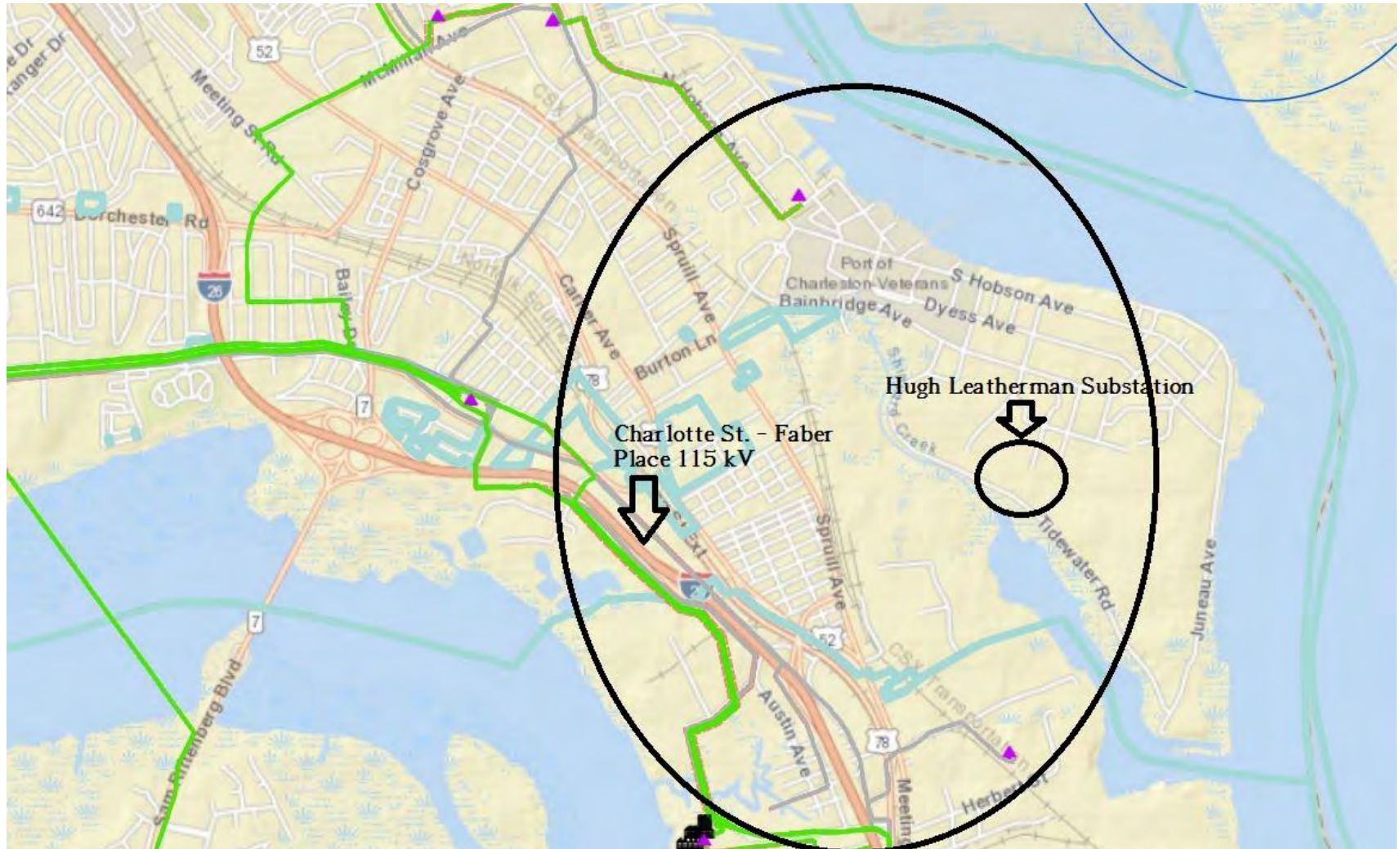
Electric Service Contract

Project Status

Planned

Planned In-Service Date

April 2020



Lake Murray –Michelin 115 kV Line: String 1272 ACSR and Lake Murray - Michelin 115 kV: Pull new wire on existing structure / Rebuild as Double Circuit

Project Description

A new circuit of 1272 ACSR wire from Lake Murray - Lexington Jct. Conductor will be installed on the available side of the Lake Murray - Gilbert 115 kV structures which were designed to be double circuit when it was originally built. Rebuild 115 kV SPDC from Lexington Junction to Lexington Industrial Park to accommodate the Lake Murray - Michelin 115 kV and Lexington Junction - Lexington Industrial Park 115 kV. Upgrade Lexington Junction - Michelin conductor to 1272 ACSR.

Project Need

System growth in the Lexington and Red Bank areas requires additional 115 kV capacity and an additional transmission path to increase reliability. This project is required to meet NERC TPL standards and DESC's Internal Planning Criteria.

Project Status

Planned

Planned In-Service Date

May 2020



Cope – Denmark 115 kV: Upgrade to 1272 from Denmark Str. 68

Project Description

Upgrade the approximately 5.56 mile section of 477 ACSR conductor with 1272 ACSR conductor.

Project Need

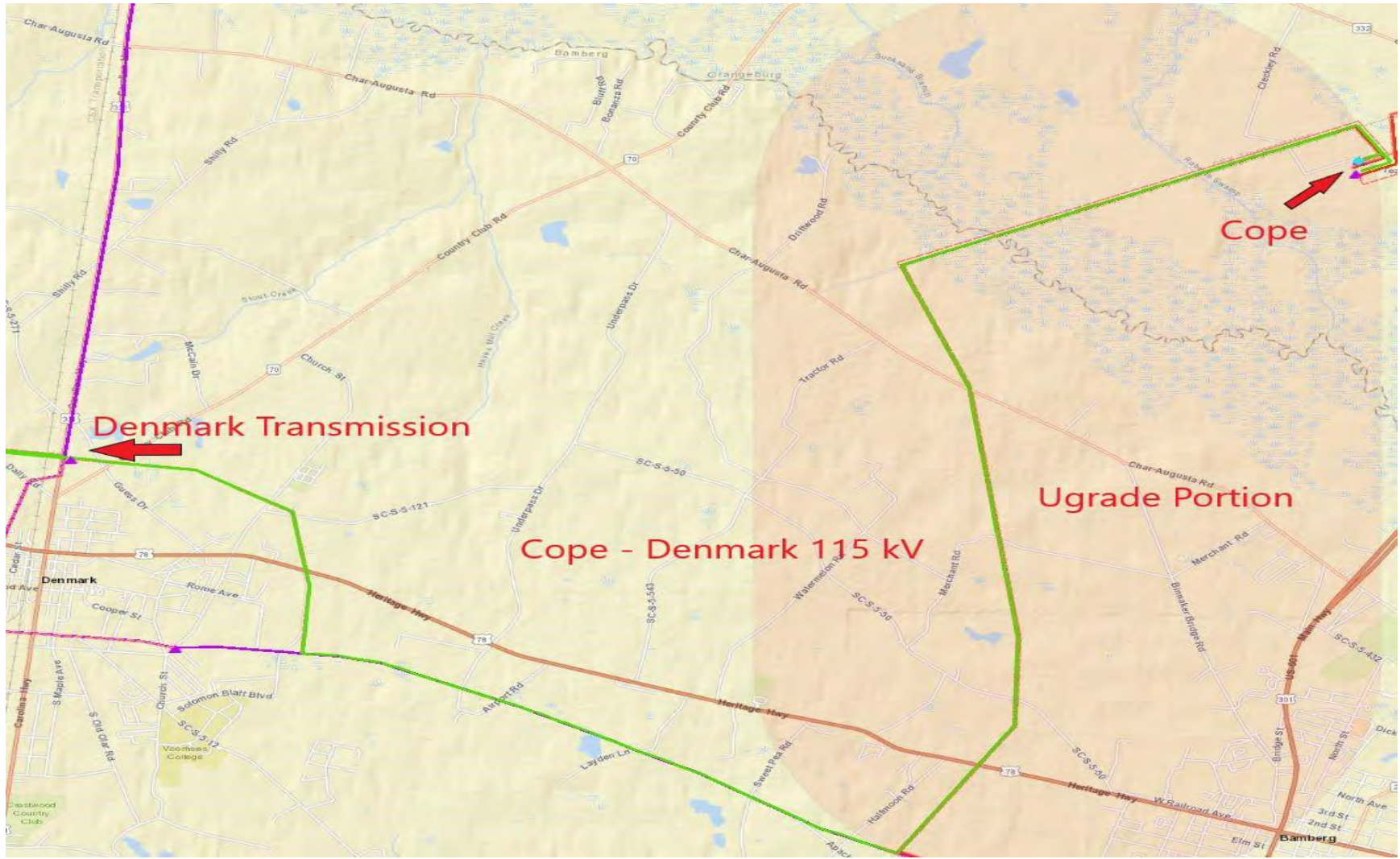
This project is required to meet NERC TPL standards and DESC's Internal Planning Criteria.

Project Status

In Progress

Planned In-Service Date

May 2020



Hooks 115 kV Switching Station and Stevens Creek-Thurmond 115kV SEPA Tieline: Fold-In to Hooks SS

Project Description

Construct Hooks 115 kV switching station and install Series Reactor on Stevens Creek-Thurmond 115kV SEPA Tieline.

Project Need

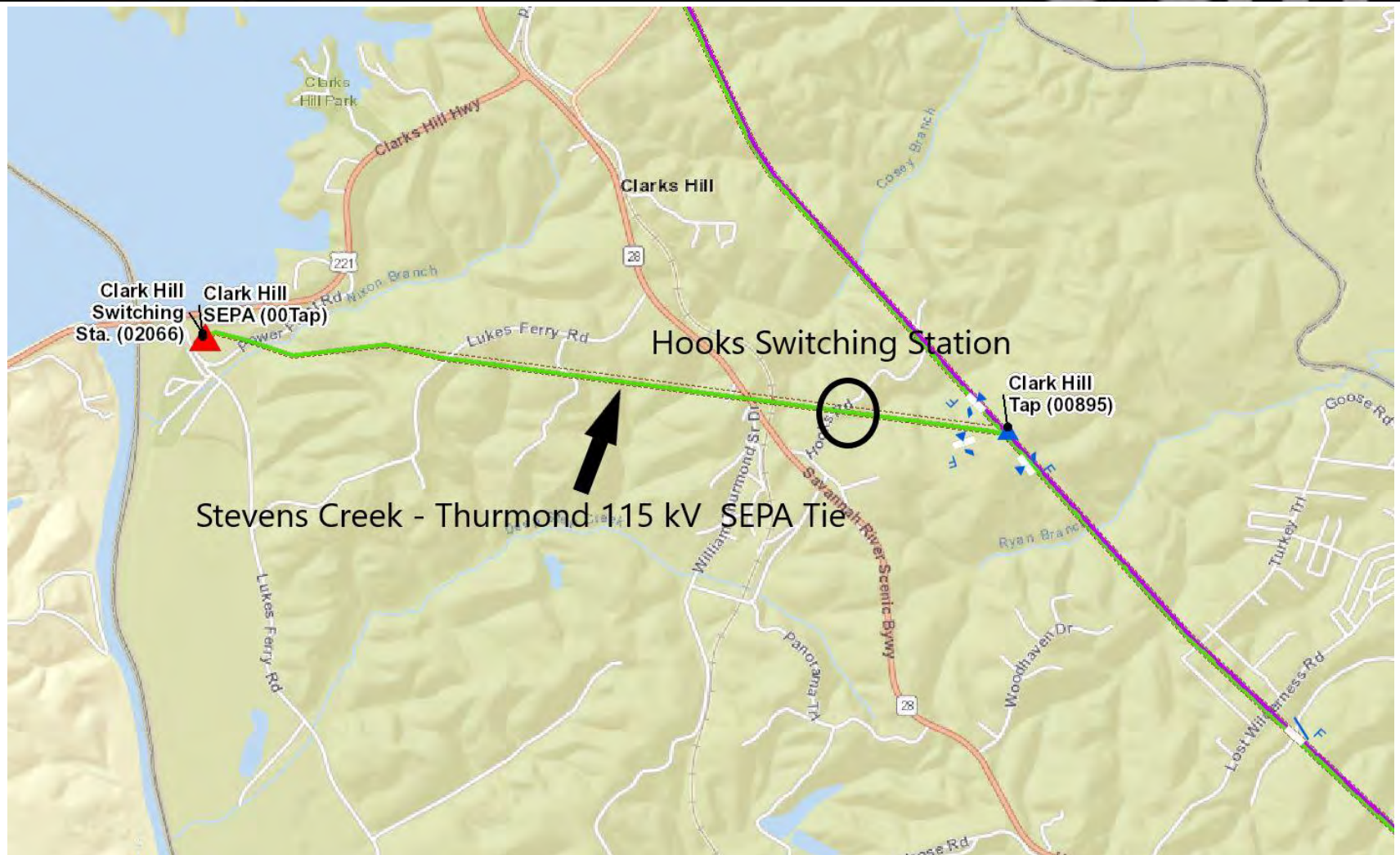
This project is required to meet NERC TPL standards and DESC's Internal Planning Criteria related to overloads on the Stevens Creek-Thurmond 115kV line.

Project Status

In Progress

Planned In-Service Date

5/31/2020



Edmund SS-Owens Corning 115kV: Upgrade Pelion Tap to Edmund SS

Project Description

Upgrade the Pelion Tap to Edmund SS portion of the line from 477 ACSR to 1272 ACSR (6.8 miles). Line will be designed for double circuit 230 kV Line with B-1272 on both sides BUT will only have a single circuit 1272 pulled in.

Project Need

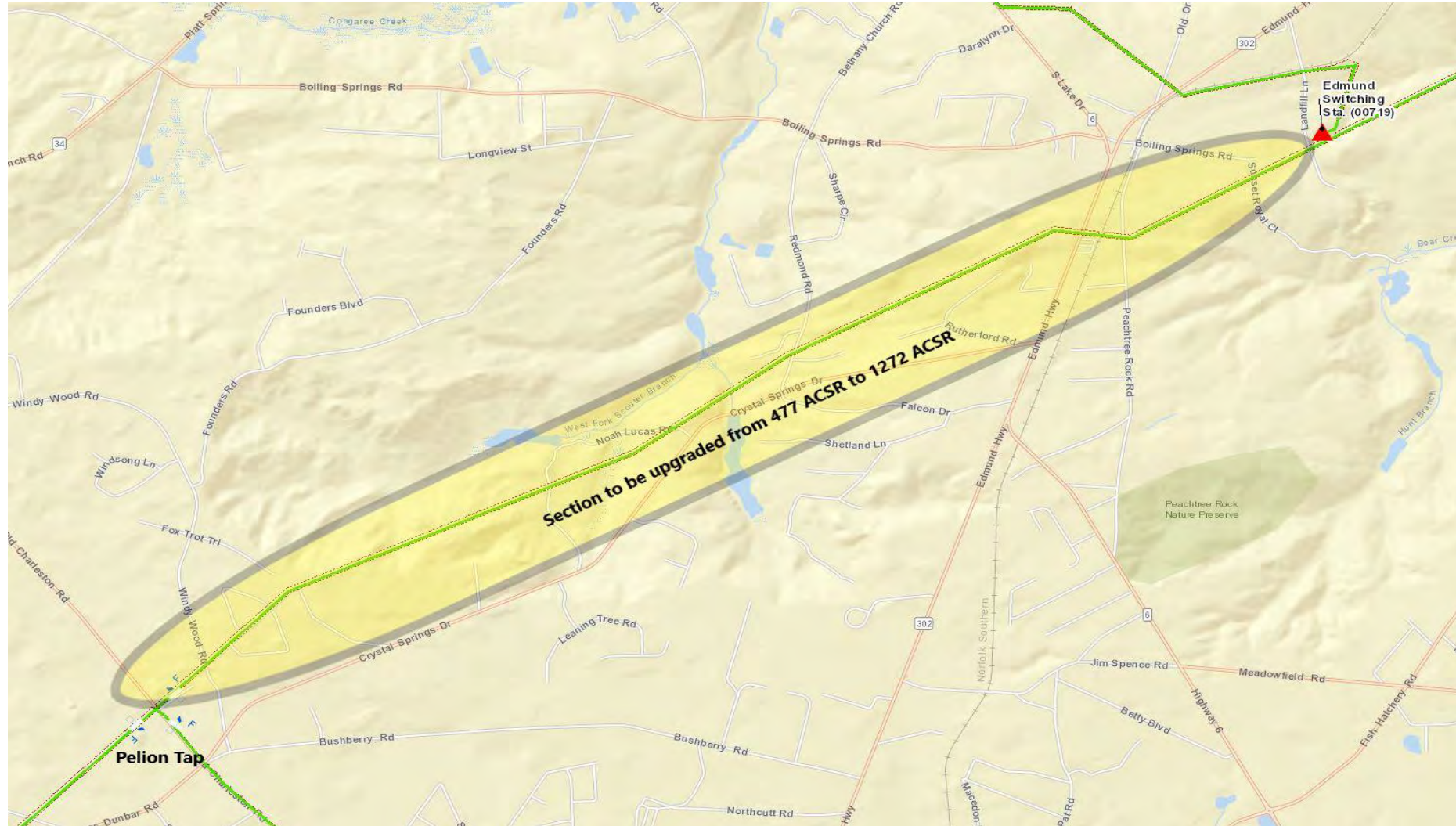
This project is required to meet NERC TPL standards and DESC's Internal Planning Criteria due to system growth.

Project Status

In Progress

Planned In-Service Date

December 2020



Batesburg-Gilbert 115kV: Rebuild with 1272

Description

Rebuilding between Batesburg and Gilbert. Line will be single circuit with 1272 ACSR.

Project Need

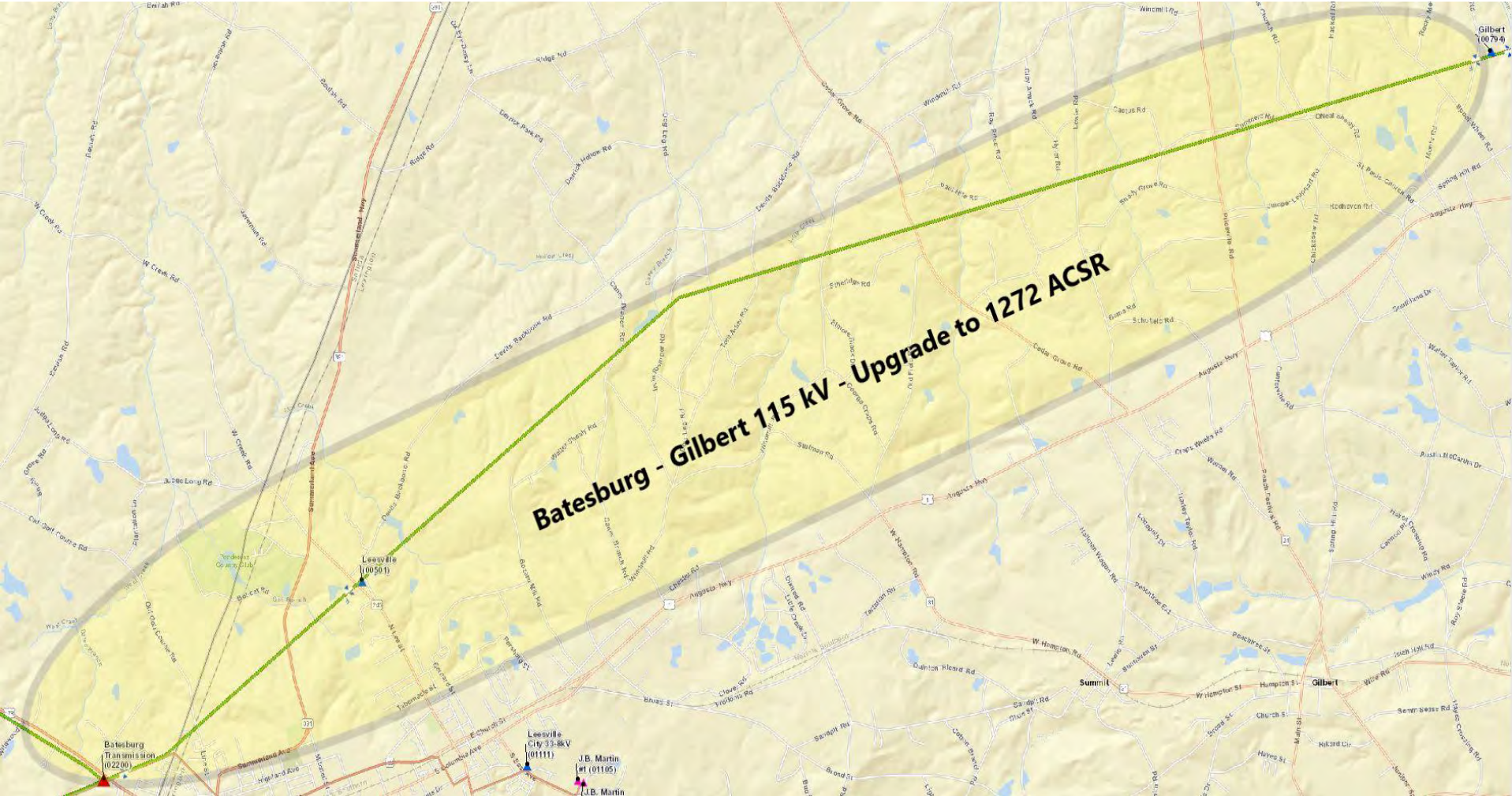
This project is required to meet NERC TPL standards and DESC's Internal Planning Criteria due to congestion in the Aiken area.

Project Status

In Progress

Planned In-Service Date

December 2020



Briggs Rd-Stevens Creek 115kV: Rebuild

Description

Rebuilding the Stevens Creek - Ward 115 kV SPDC with 1272 ACSR on both sides. One line will be a new tie line with Santee Cooper (Stevens Creek - Briggs Rd), the other tie line will be Stevens Creek - Ward 115 kV Line.

Project Need

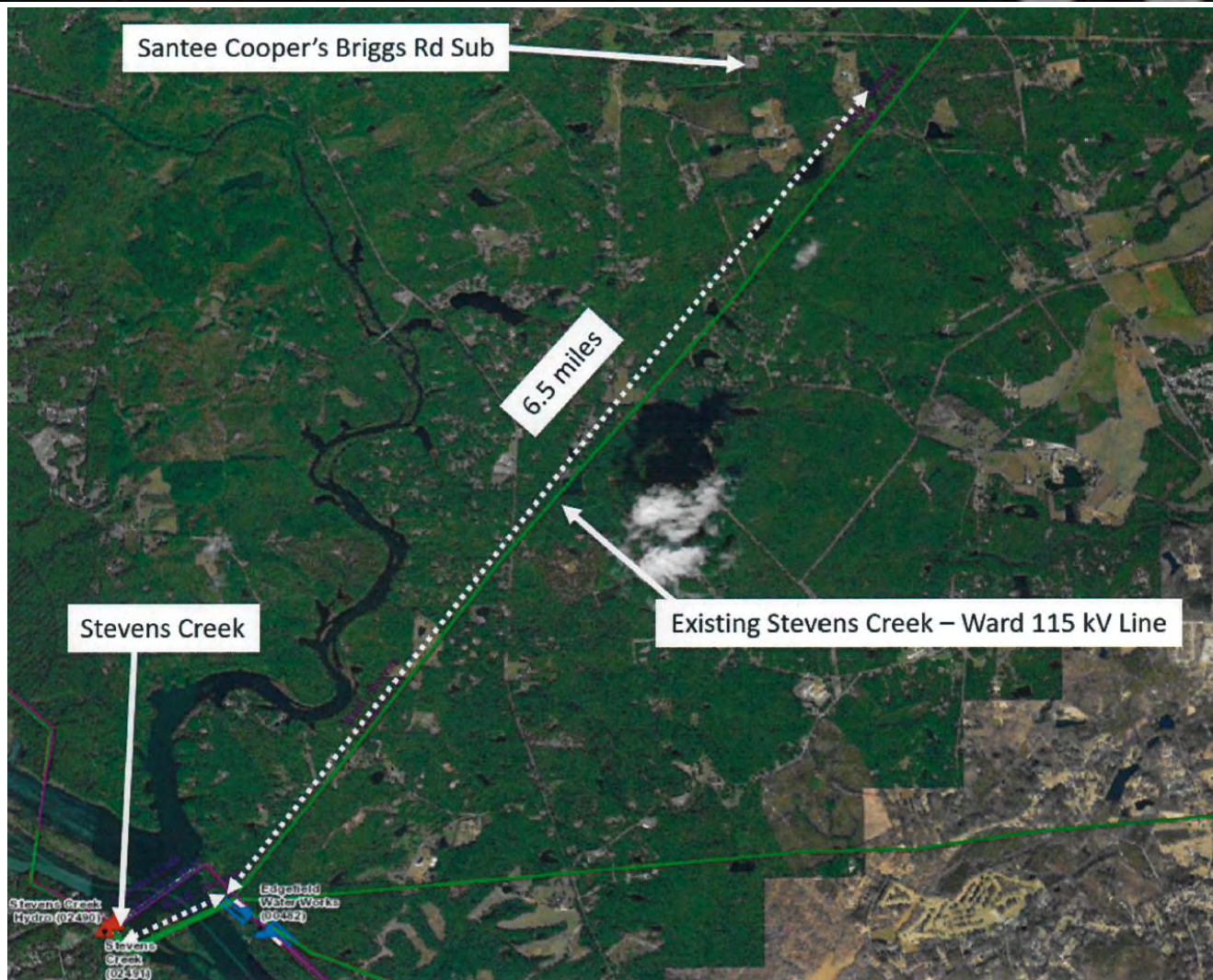
This project is required to meet NERC TPL standards and DESC's Internal Planning Criteria due to congestion in the Aiken area.

Project Status

In Progress

Planned In-Service Date

December 2020



Queensboro-Ft Johnson 115kV: Replace Poles

Description

Replace the Queensboro – Ft Johnson 115 kV Line as the line has reached the end of its usable life

Project Need

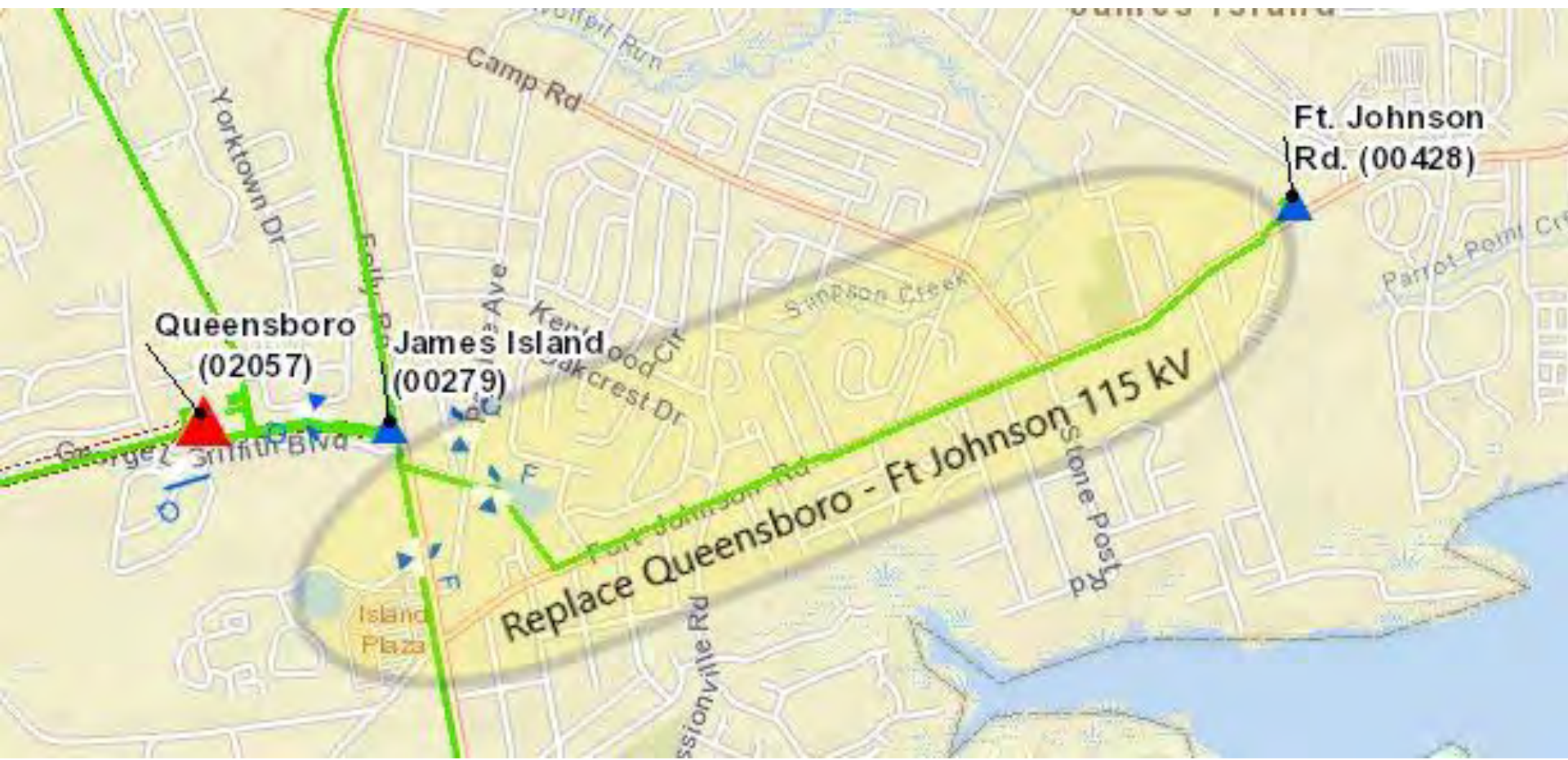
This project is required to for system reliability and maintainability.

Project Status

In Progress

Planned In-Service Date

December 2020



Briggs Rd – Stevens Creek 115kV : Rebuild

Description

Rebuilding the Stevens Creek - Ward 115 kV SPDC with 1272 ACSR on both sides. One line will be a new tie line with Santee Cooper (Stevens Creek - Briggs Rd), the other line will be Stevens Creek - Ward 115 kV Line.

Project Need

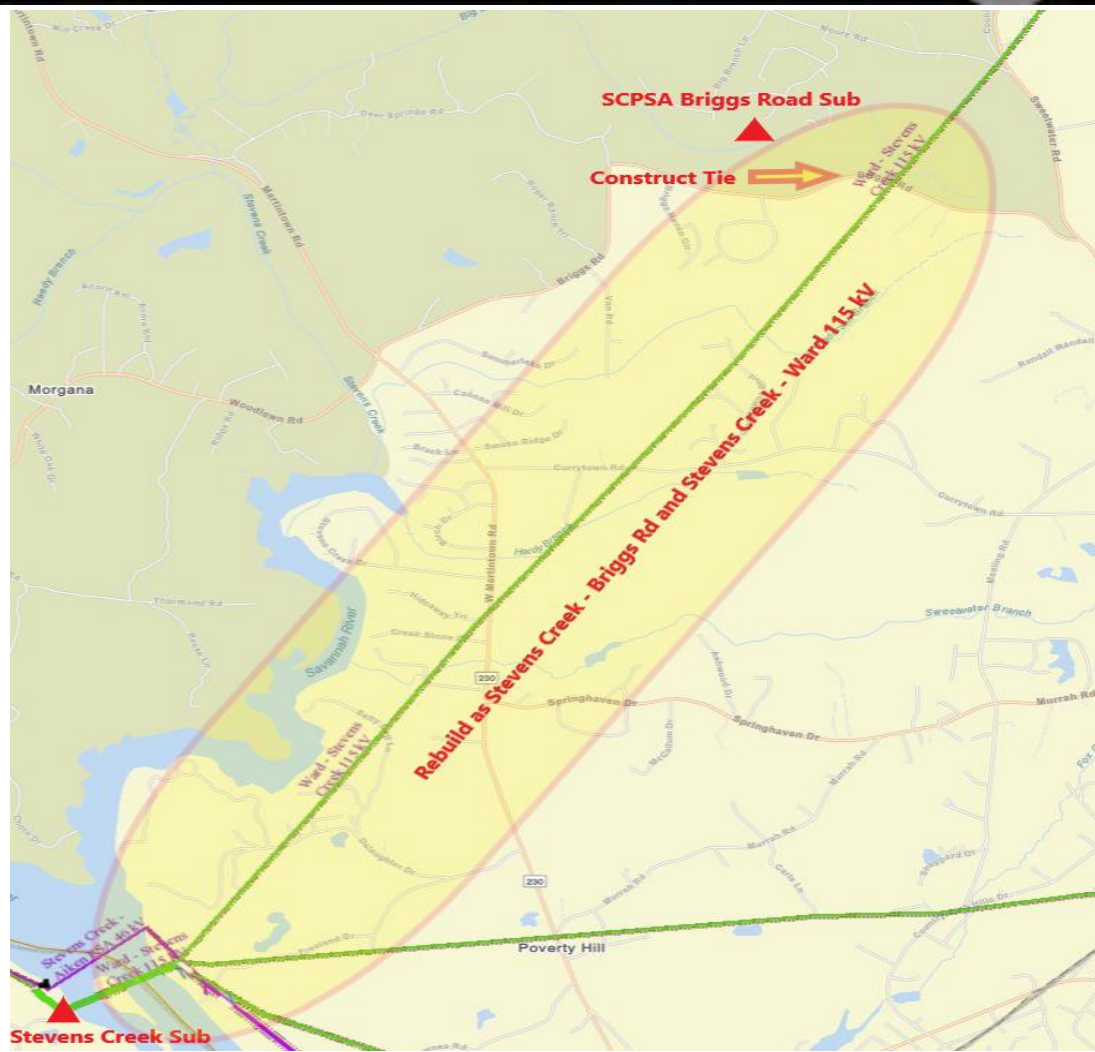
This project is required to for system reliability and maintainability.

Project Status

In Progress

Planned In-Service Date

December 2020



Toolebeck – Aiken 230kV Tie: Construct , Toolebeck Sub: Add Three 230kV Terminals, Urquhart Junction - Toolebeck 230 kV Fold In

Description

Add three 230kV terminals at the Toolebeck substation, construct the Toolebeck – Aiken 230kV SCPSA Tie designed as SPDC to carry 230kV B1272 on both sides.

Project Need

This project is required to meet NERC TPL standards and DESC's Internal Planning Criteria due to congestion in the Aiken area.

Project Status

In Progress

Planned In-Service Date

December 2021



Bluffton – Santee 115 kV Tie Line Construct

Project Description

Construct a new 115 kV tie line from SCE&G Bluffton substation to SCPSA Bluffton substation. Total line length will be approximately 1.5 miles.

Project Need

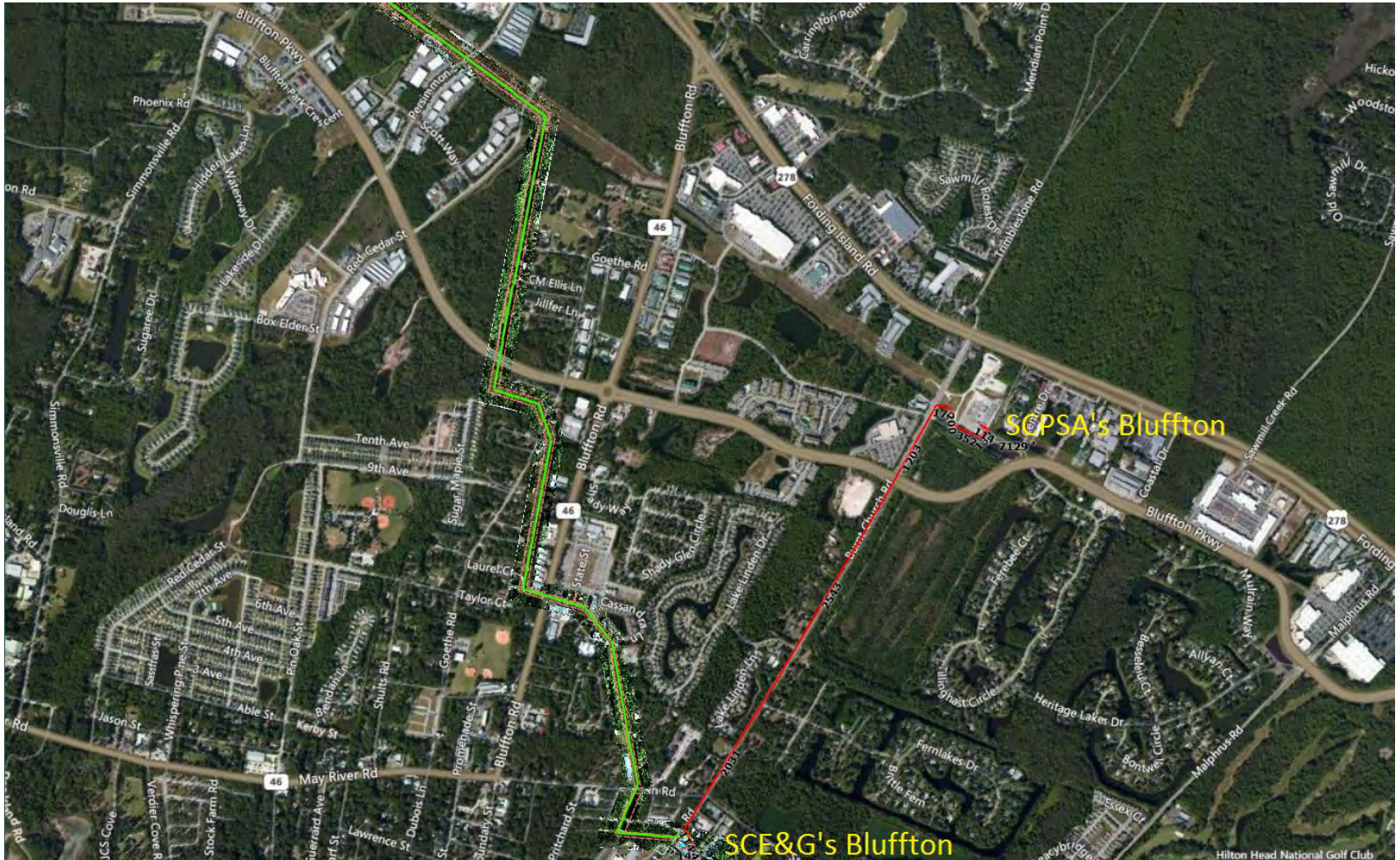
This line is needed to reduce outage durations for planned outages and emergency situations for DESC's Bluffton, Hardeeville and Pritchardville substations.

Project Status

Planned

Planned In-Service Date

December 2020



Williams Street – Park Street 115 kV: Construct

Project Description

Design and install a 115 kV line between Williams Street and Park Street substations.

Project Need

System load growth in the downtown Columbia area requires additional transmission capacity.

Project Status

Planned

Planned In-Service Date

5/1/2020



DESC

2021 - 2025

**Planned Transmission
Facilities**

Pepperhill – Summerville 230 kV: Construct

Project Description

Construct a new 230 kV line from Pepperhill to Summerville SPDC with B1272 ACSR. The existing Williams – Canadys 230 kV line will be re-terminated to Pepperhill and Faber Place to create Canadys – Faber Place 230 kV line and Williams – Pepperhill 230 kV line.

Project Need

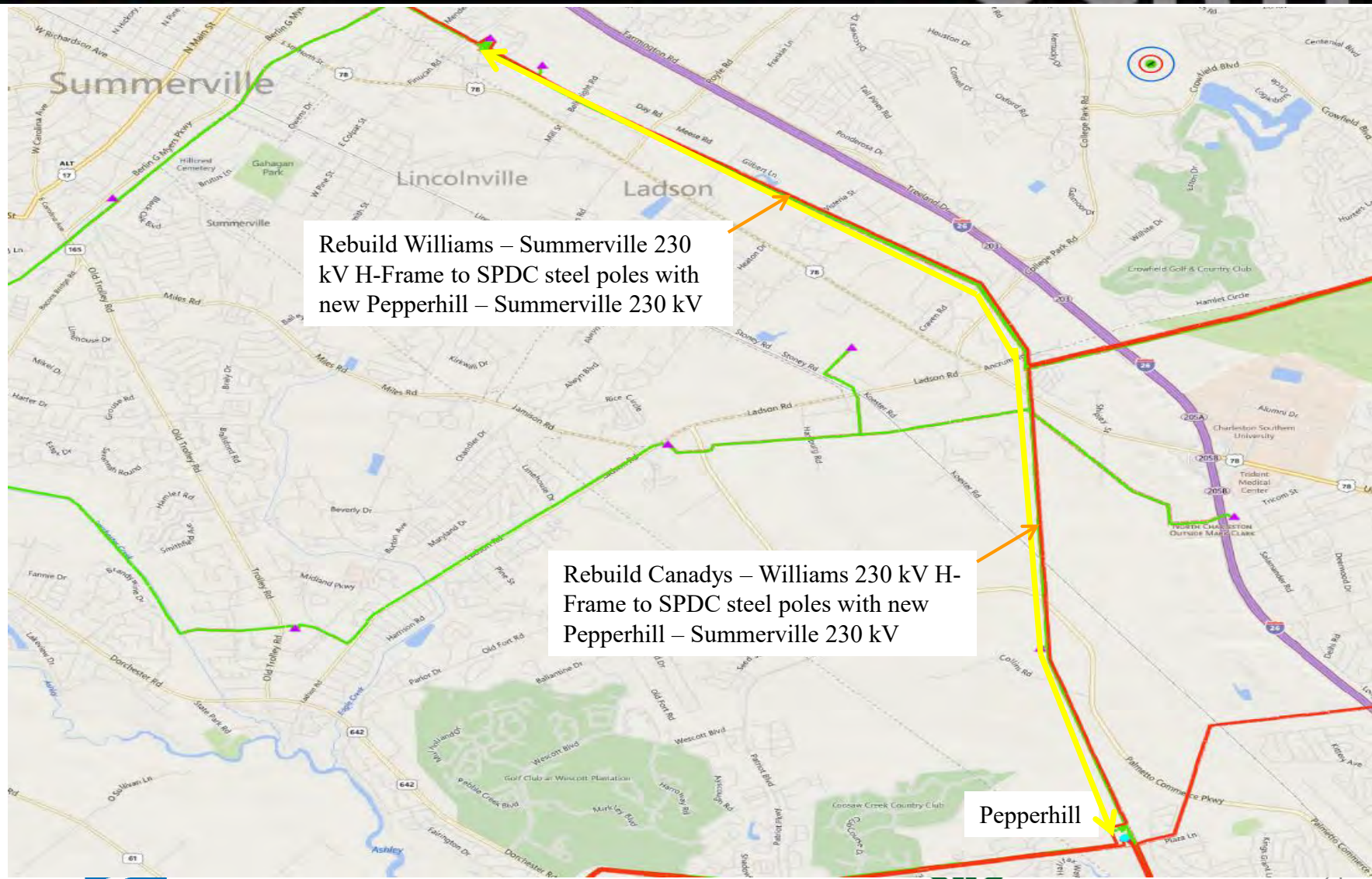
System load growth in the low country requires additional transmission capacity. This project is required to meet NERC TPL standards and DESC's Internal Planning Criteria.

Project Status

Planned

Planned In-Service Date

January 2021



Church Creek-Faber Place 230kV & 115kV: Rebuild the Ashley River Crossing

Description

The existing river structures and the structures located in the marsh are deteriorating and in need of replacement.

Project Need

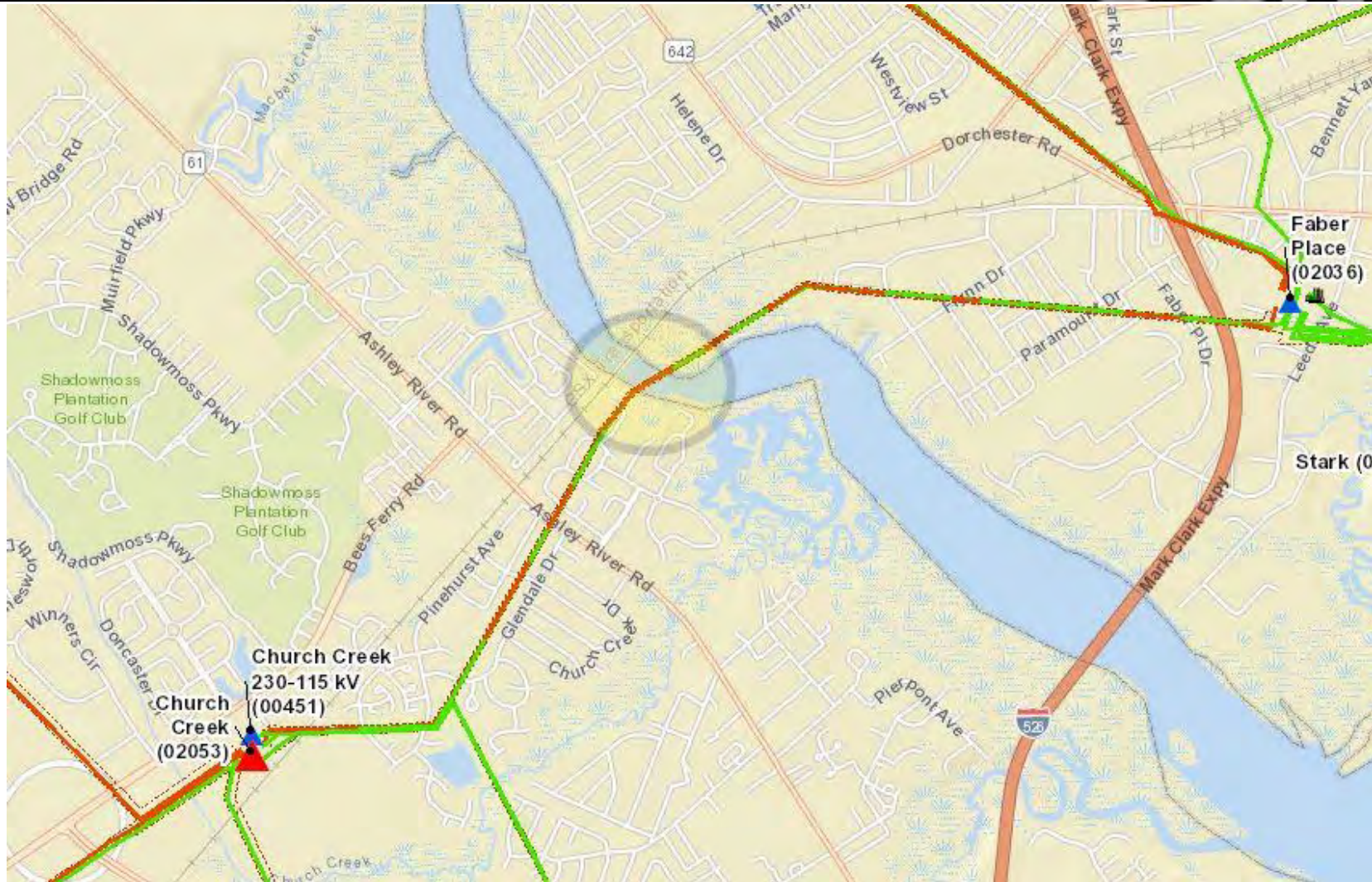
This project is required to for system reliability and maintainability.

Project Status

In Progress

Planned In-Service Date

May 2021



Emory 230kV Distribution Sub : Tap Construct

Project Description

Tap the VCS2 – Ward 230 kV line for the Emory 230 kV Distribution Substation.

Project Need

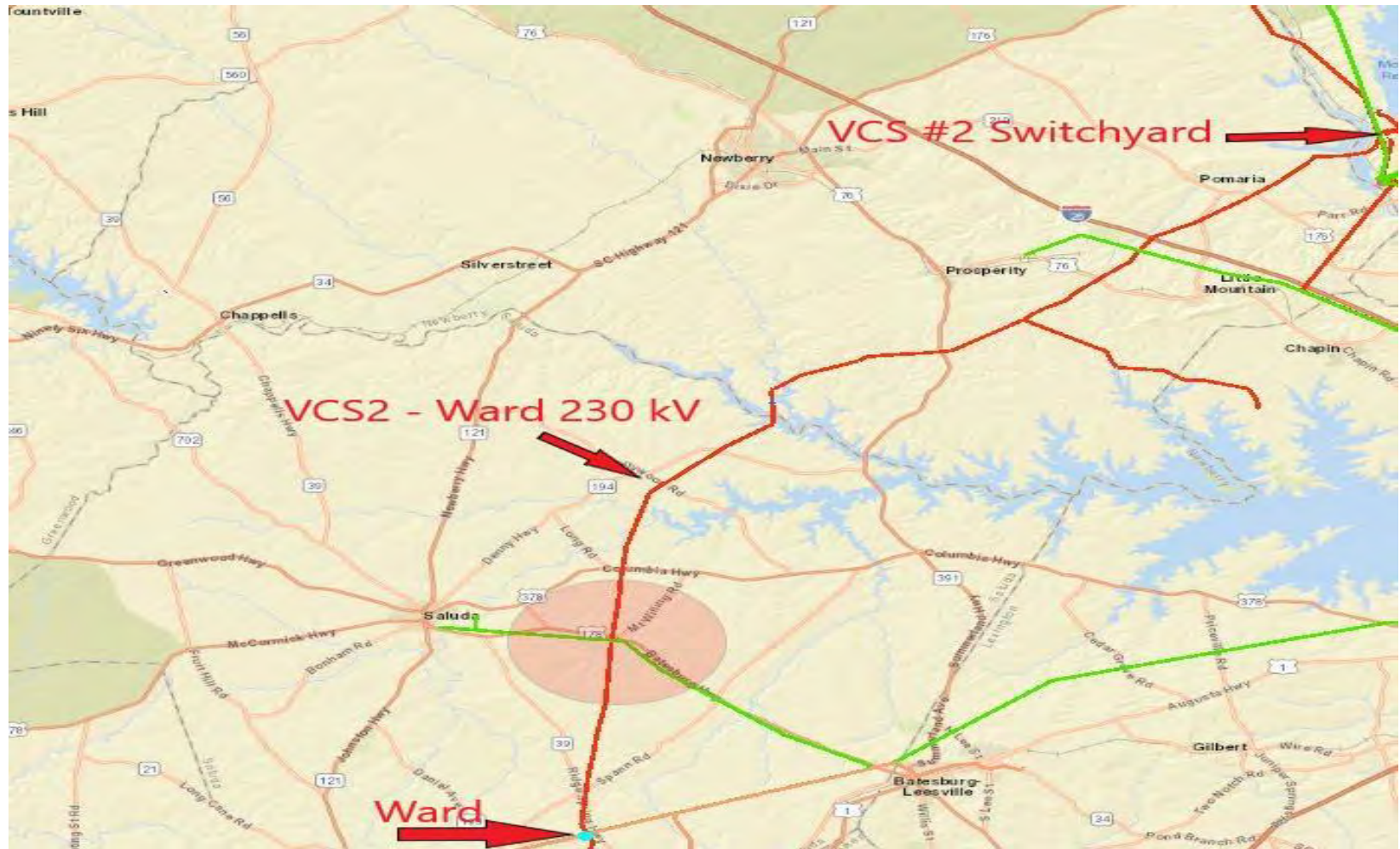
Load growth in the area requires additional distribution capacity.

Project Status

Planned

Planned In-Service Date

May 2021



Canadys 230 kV: Add Back-Back Bus Tie Breakers and Canadys 230 kV Sub: Reterminate Various Lines

Project Description

Upgrade the 230kV bus from single 1272 ACSR to bundled 1272 ACSR. Install back to back 230 kV bus tie breakers and re-terminate existing lines into substation.

Project Need

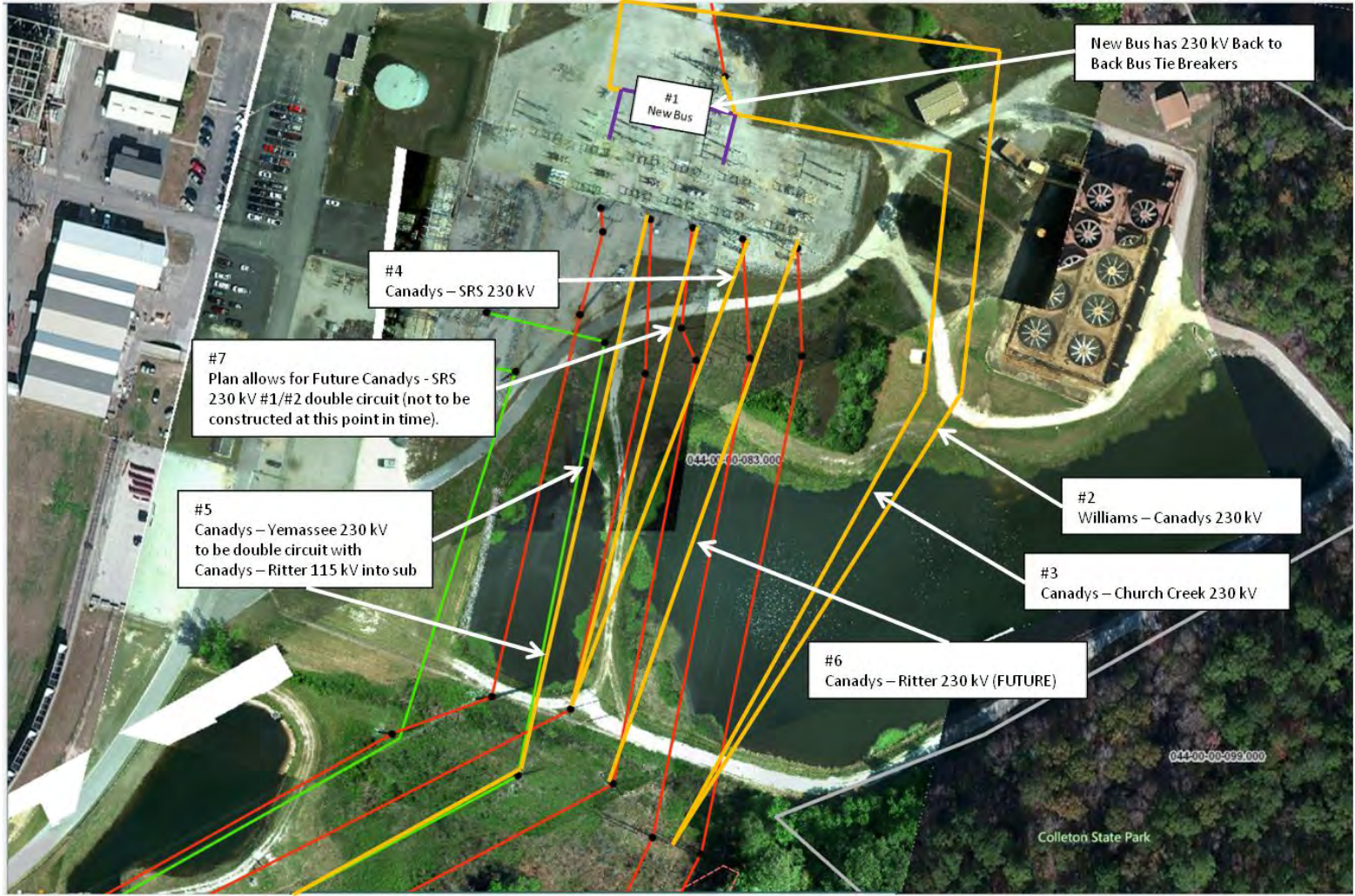
The 230 kV bus upgrades are required for additional load growth in the southern portion of the SCE&G system, and back-to-back bus tie breakers are required for system reliability improvements.

Project Status

Planned

Planned In-Service Date

June 2021



Lake Murray – Gilbert 115kV Line and Lex Westside – Gilbert 115 kV Line

(Stevens Creek-Ward-Lake Murray Line Projects)

Description

Rebuilding between Lexington Junction and Lexington Transmission including the addition of a third circuit. All three circuits will be designed for 1272 ACSR, Rebuilding between Lexington Transmission and Lexington Westside, line will be SPDC with 1272 ACSR on both sides. Rebuilding between Lexington Westside and Gilbert, line will be designed for SPDC 1272 ACSR but will only construct 1 circuit at this time.

Project Need

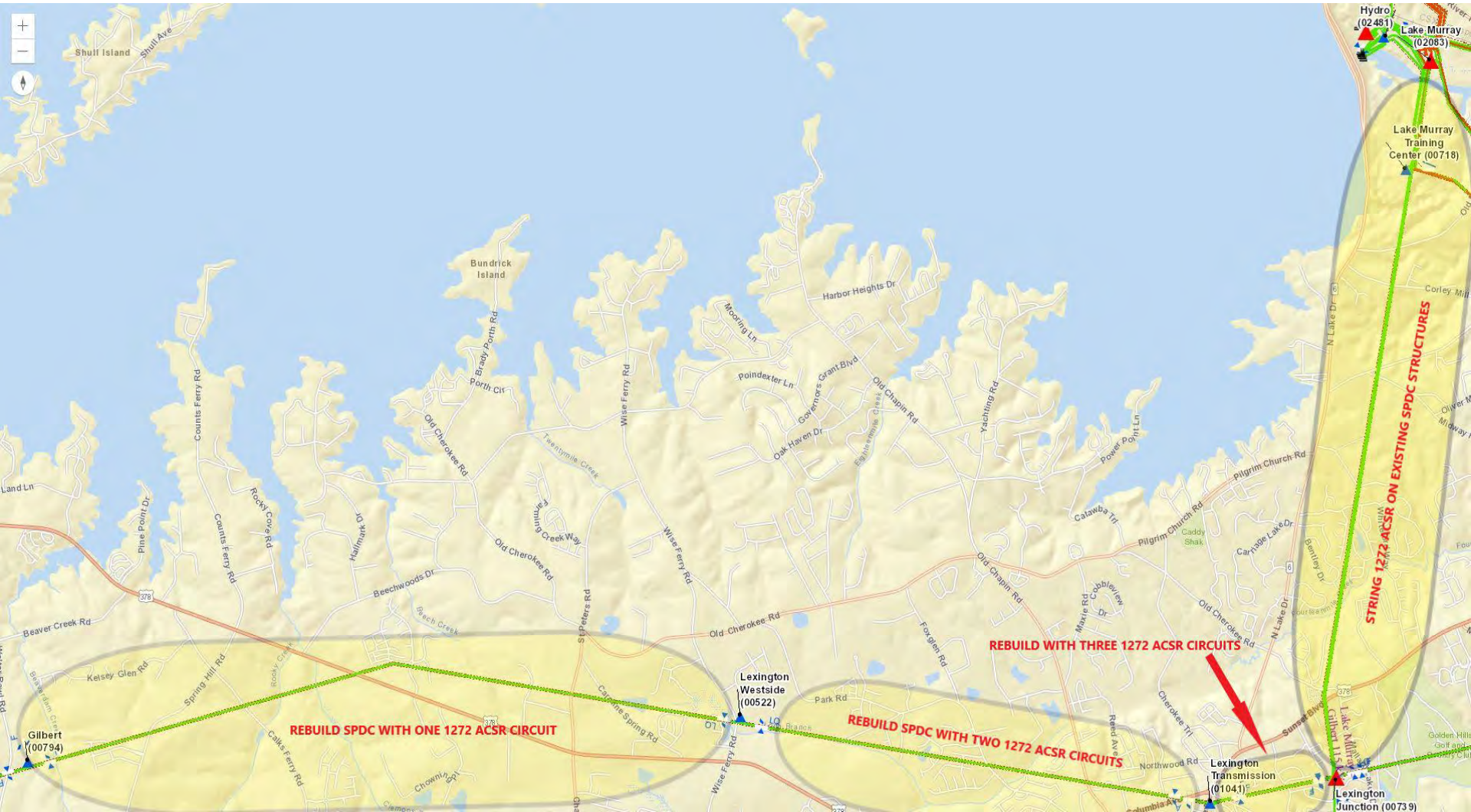
This project is required to for system reliability and maintainability.

Project Status

In Progress

Planned In-Service Date

December 2021/December 2022



Batesburg – Ward 115kV Line

(Stevens Creek-Ward-Lake Murray Line Projects)

Description

Rebuilding between Batesburg and Ward, line will be single circuit with 1272 ACSR.

Project Need

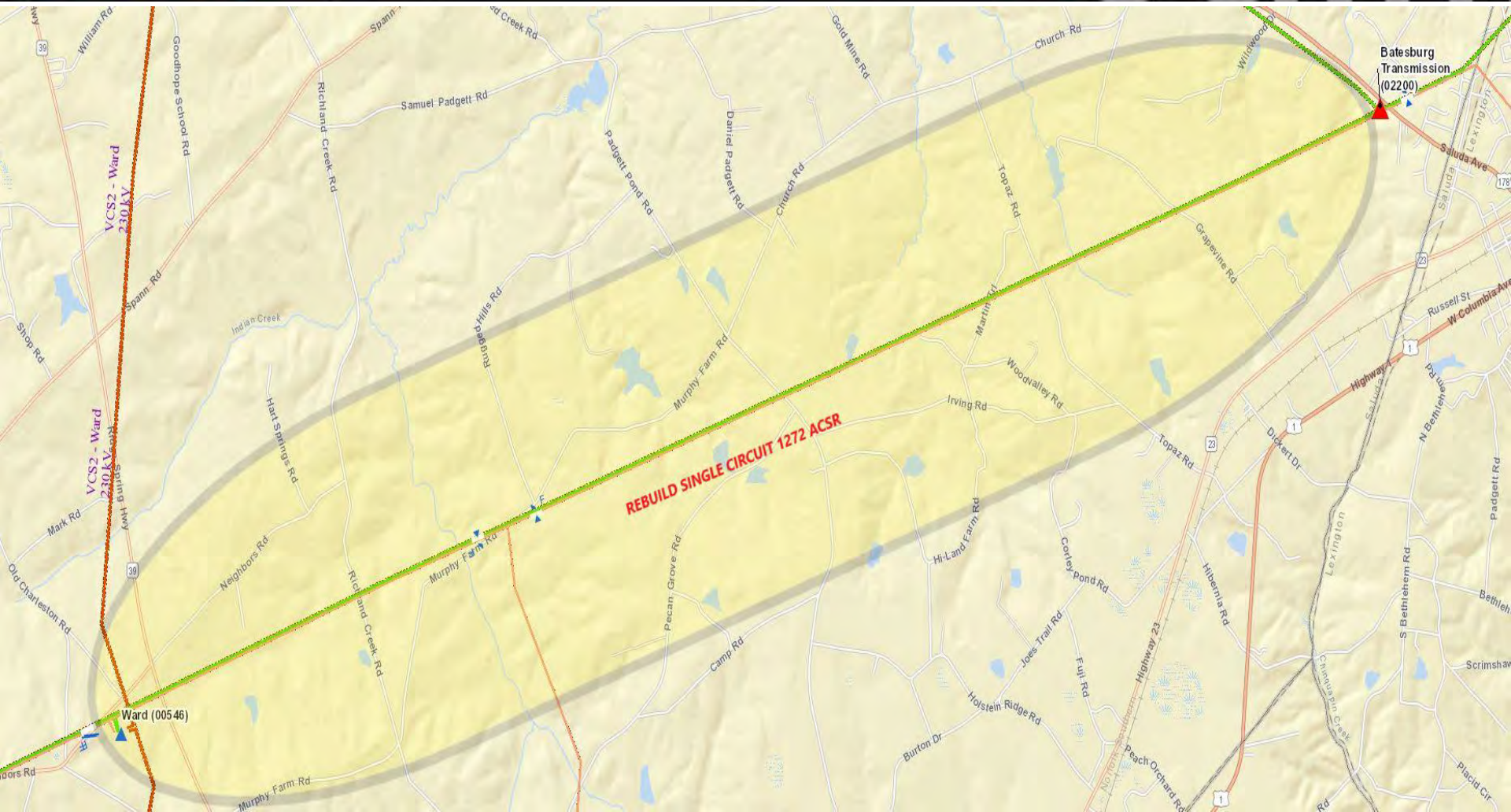
This project is required to for system reliability and maintainability.

Project Status

In Progress

Planned In-Service Date

December 2021



Trenton –Briggs Road Tap (Ward – Stevens Creek 115 kV)

(Stevens Creek-Ward-Lake Murray Line Projects)

Description

Rebuilding between Trenton and the Briggs Rd Tap, line will be single circuit with 1272 ACSR.

Project Need

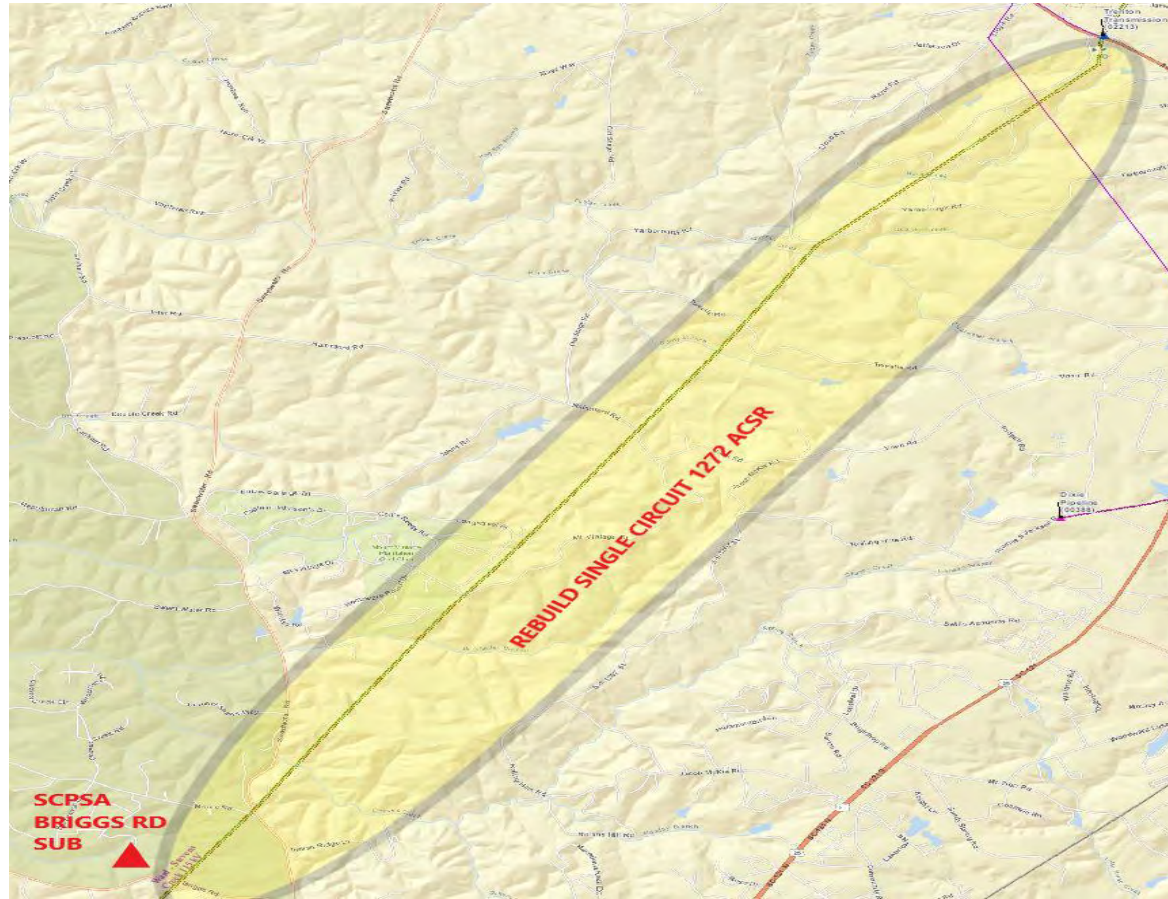
This project is required to for system reliability and maintainability.

Project Status

In Progress

Planned In-Service Date

December 2021



Coit – Gills Creek 115 kV Line: Construct

Project Description

Construct a new 115 kV tie line from Coit substation to the Gills Creek substation.

Project Need

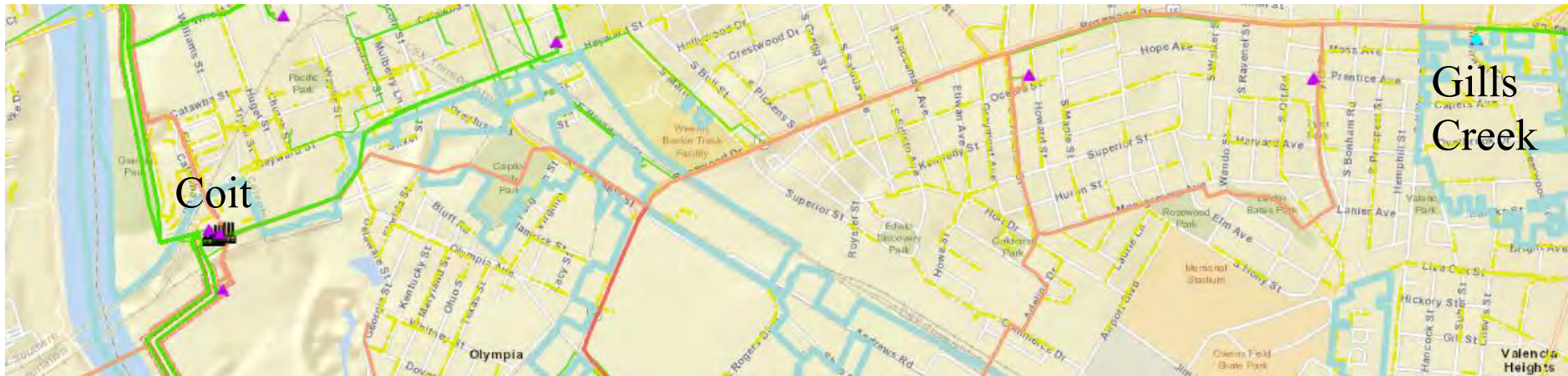
System growth in the Eastern Columbia and Garners Ferry areas requires additional 115 kV capacity and transmission path to increase reliability.

Project Status

Planned

Planned In-Service Date

December 2022



Burton-Yemassee 115 kV #2 Line Rebuild SPDC B795 ACSR

Project Description

Burton-Yemassee 115 kV Line #2: Rebuild 115 kV SPDC using B795 ACSR (line length 21.24 miles).

Project Need

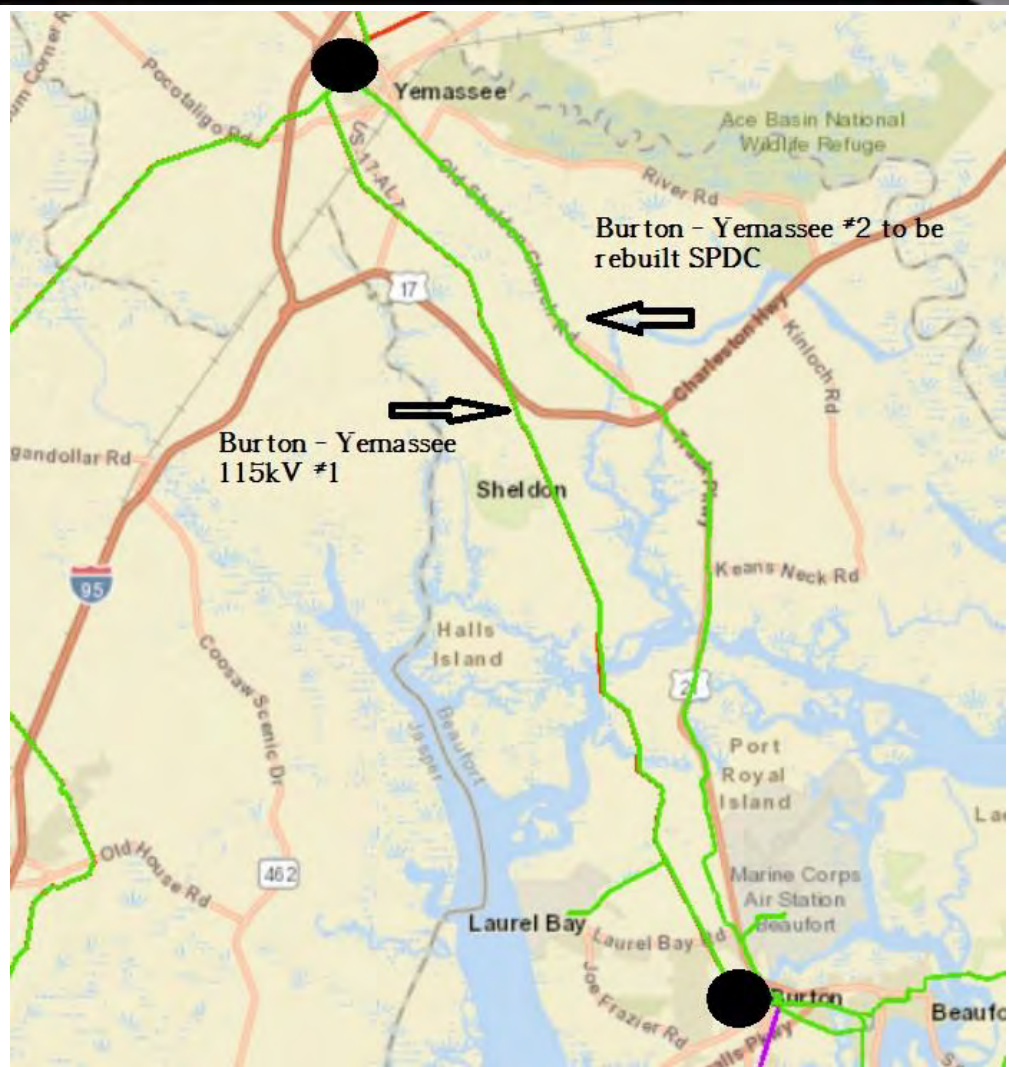
System load growth in the Burton area requires additional transmission capacity from the Yemassee 230/115 kV substation and added transmission path to increase reliability.

Project Status

In Progress

Planned In-Service Date

December 2022



Union Pier 115 – 13.8 kV Sub : Tap Construct

Project Description

Construct a 115-13.8kv substation approximately 0.7 mile South of Charlotte Street Substation near Bay Street.

Project Need

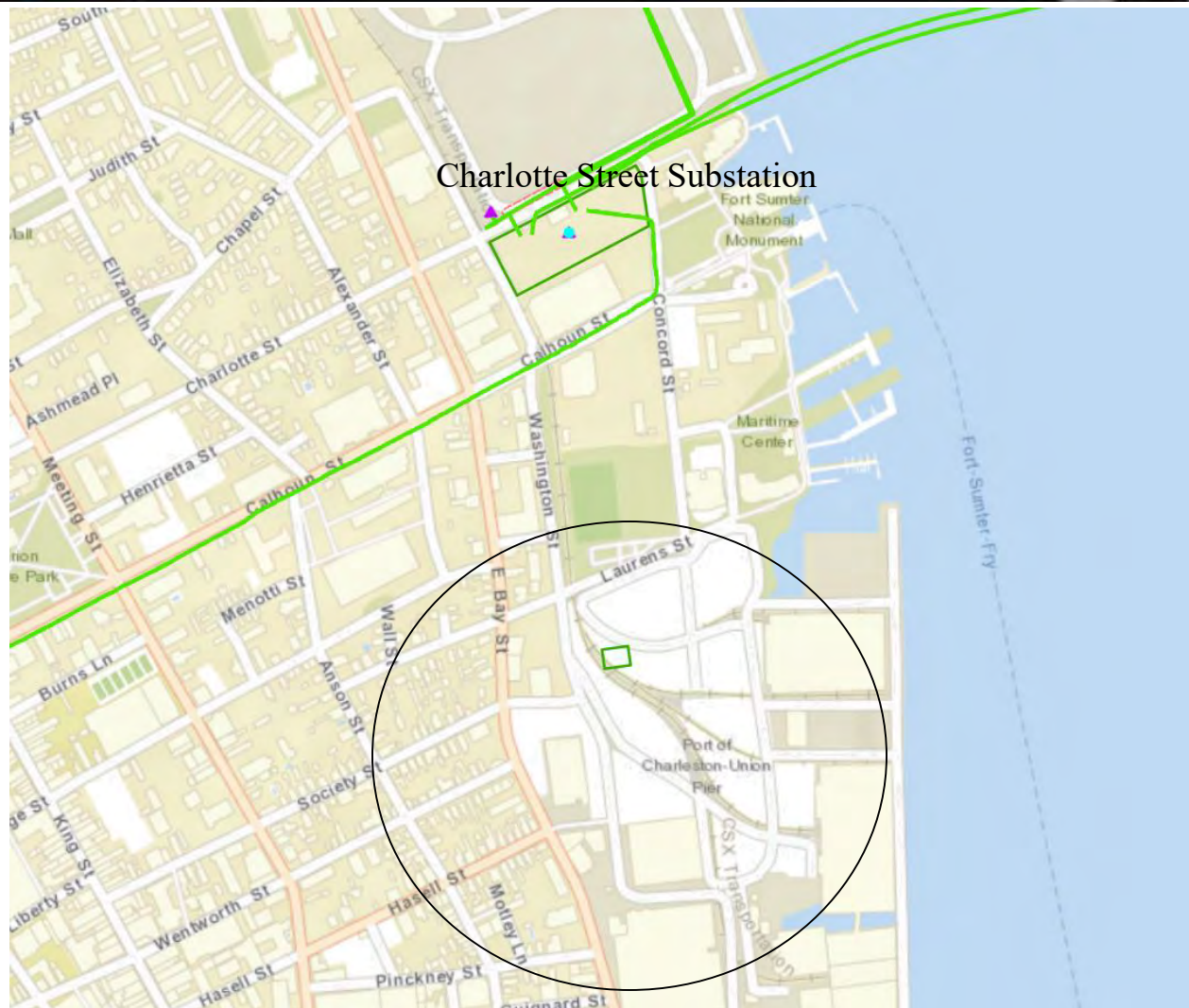
Load growth in the Charleston area requires additional transmission capacity.

Project Status

Planned

Planned In-Service Date

December 2024



Questions?

Santee Cooper Major Transmission Expansion Plans

Weijian Cong

Transmission Planned Projects

Bluffton-Market Place #2 115 kV Line Phase I	6/1/2020
Bluffton 230-115 kV Substation: Add 115 kV tie (DESC)	12/1/2020
Pomaria-Orangeburg 230 kV Line	12/15/2020
Briggs Road 115 kV Tie Line with DESC	12/31/2020
Series Bus Tie Breakers at Hemingway 230-115 kV substation	6/1/2021
Carnes Crossroads Transformer #3	6/1/2021
Rebuild N. Charleston-Goose Creek 115 kV Line Section	12/1/2021
John's Island (SC)-Queensboro (DESC) 115 kV Line	12/31/2021
Aiken 230 kV Tie Line with DESC	12/31/2021
Chime Bell 115 kV Switching Station	12/1/2022
Aiken 230-115 kV Transformer Addition	11/1/2023
Conway 230 kV Switching Station	12/1/2025
Marion-Conway 230 kV Line	12/1/2025

Bluffton-Market Place #2 115 kV Line Phase I: Bluffton - Buckingham 115kV

Project Description

Construct a new 115 kV transmission line from the Bluffton 230-115 kV Substation to the Market Place 115-12 kV Substation in two phases. Phase 1: Extend 115 kV bus #2 at Bluffton and install a new line terminal. Construct the new 115 kV line to the Buckingham Delivery Point substation.

Project Need

Planning assessments indicate thermal loading on transmission line(s) feeding Hilton Head Island may exceed Santee Cooper's Planning Criteria under certain contingencies. Moving the Buckingham load onto a new line from Bluffton is expected to mitigate these issues in the near-term and increase the reliability of transmission service to Hilton Head Island.

Project Status

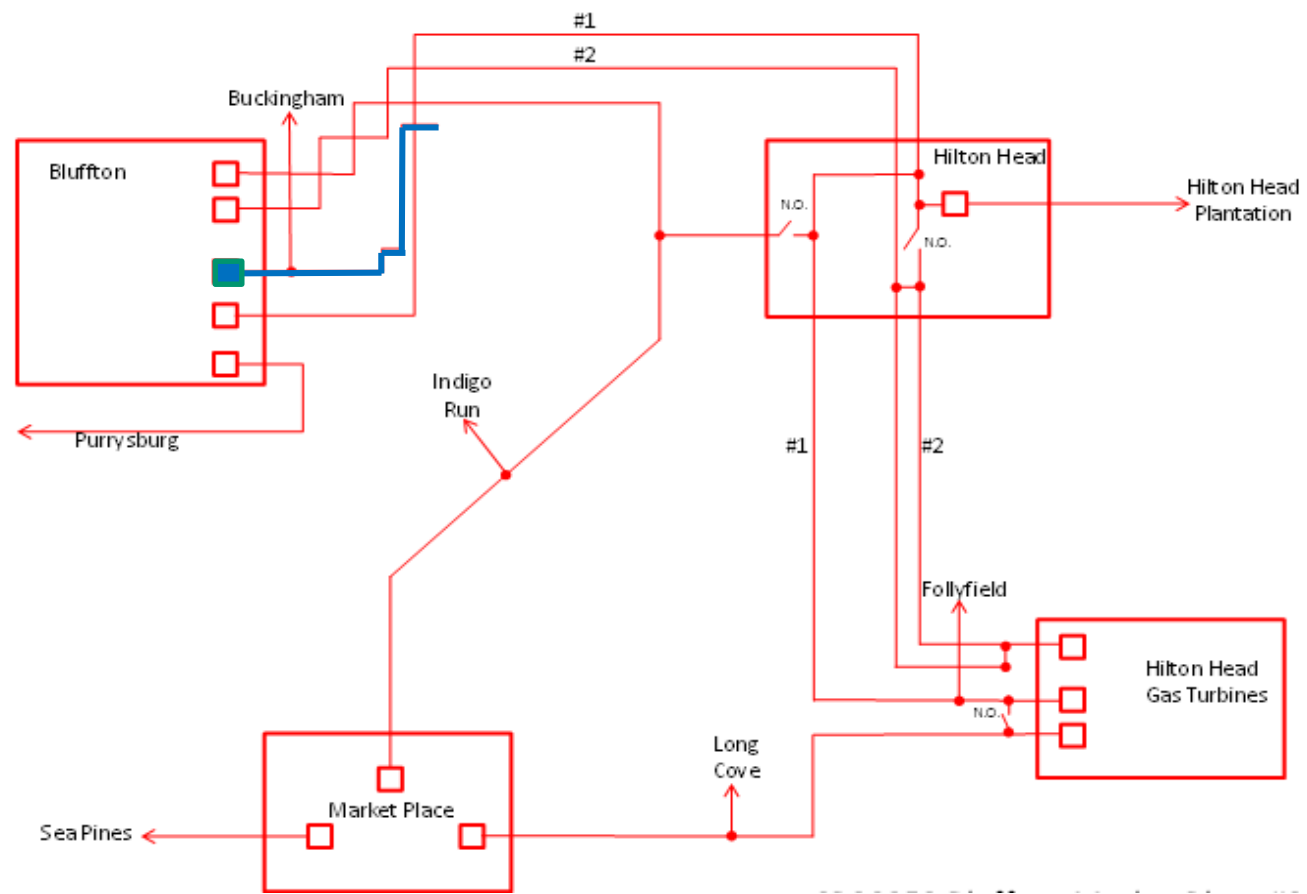
In Progress

Planned In-Service Date

June 2020

Bluffton-Market Place #2 115 kV phase I

Bluffton-Buckingham section 6/2020



Bluffton-Market Place 115 kV Line #2



Phase I
2020

Pomaria-Orangeburg 230 kV Line

Project Description

Construct a 230 kV line approximately 90 miles in length from the Pomaria 230–69 kV Substation to the Orangeburg 230-115-69 kV Substation. An additional 115 kV circuit must be constructed between the Burke Road Tap and Orangeburg Substation to provide for an additional looped 115 kV circuit.

Project Need

This project expands 230 kV transmission network and connects generation from the Northern area to the Southern area of the system while the new Sandy Run 230-115 kV substation provides additional support for Columbia and Sandy Run areas.

Project Status

Orangeburg-Sandy Run 115 kV lines and Sandy Run 230-115 kV substation - Complete
Pomaria-Orangeburg 230 kV line - In Progress

Planned In-Service Date

December 2020

Pomaria – Orangeburg 230 kV Line

12/2020



Series Bus Tie Breakers at Hemingway 230-115 kV substation

Project Description

Reconfigure the Hemingway 230-115 kV Substation 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 on facilities in the area under contingency conditions by eliminating a specific contingency that would result in loss of all 230 kV support at the Hemingway 230-115 kV substation.

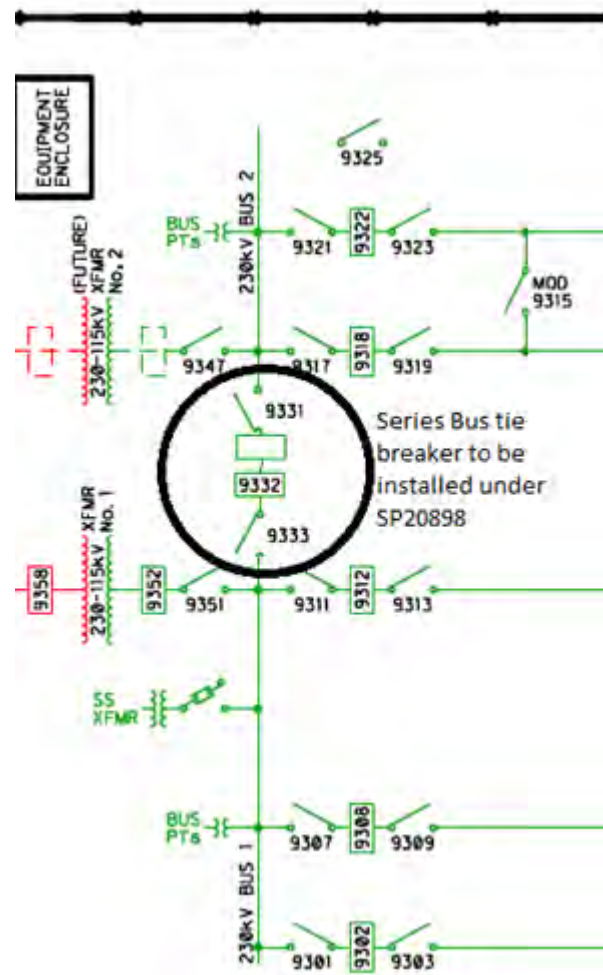
Project Status

In Progress

Planned In-Service Date

June 2021

Series Bus Tie Breakers at Hemingway 230-115 kV substation 6/2021



Carnes 230-115 kV substation: Add Transformer #3

Project Description

At the Carnes Crossroads 230-115 kV Substation, install a third 230-115 kV transformer rated for 150/200/250//280 MVA. Add redundant bus differential relaying for both the 230 kV and 115 kV buses.

Project Need

Load growth in the Berkeley County area will require the installation of an additional transformer at Carnes 230-115 kV substation to mitigate transformer loading under contingency conditions and to maintain transmission reliability in this area.

Project Status

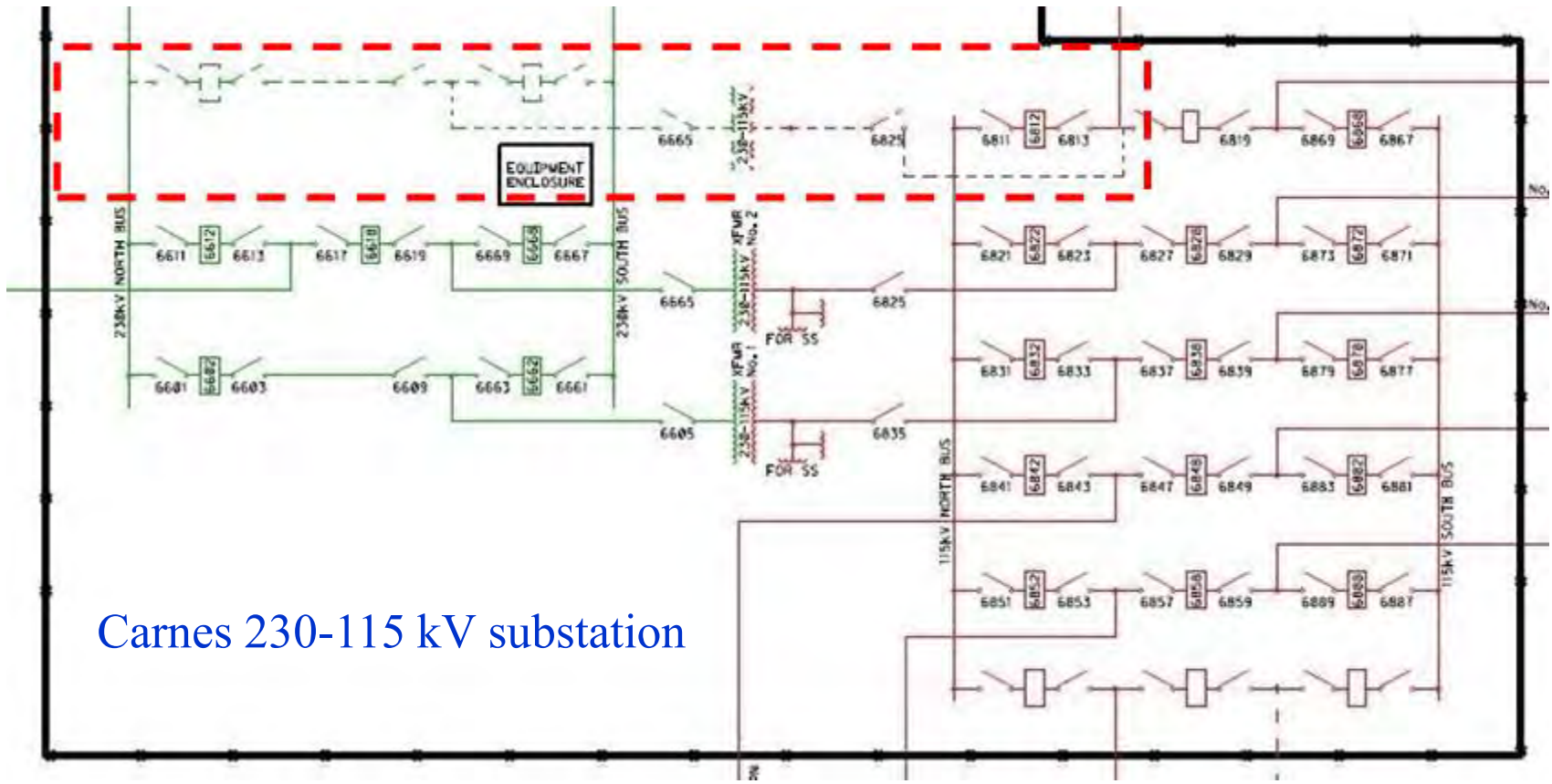
In Progress

Planned In-Service Date

June 2021



Carnes 230-115 kV substation: Add Transformer #3 6/2021



Carnes 230-115 kV substation

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

December 2021

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



Chime Bell 115 kV Switching Station

Project Description

The Chime Bell 115 kV Switching Station will be created by folding in the existing Aiken #1 – Aiken #3 115 kV #1 line between the New Ellenton and Warrentonville Delivery Point Taps.

Project Need

As part of coordinated transmission system expansion planning with Central Electric Power Cooperative, Inc., Santee Cooper has planned to construct the proposed Chime Bell 115 kV Switching Station to enhance the reliability of transmission service to the cooperative delivery points in the Aiken Area.

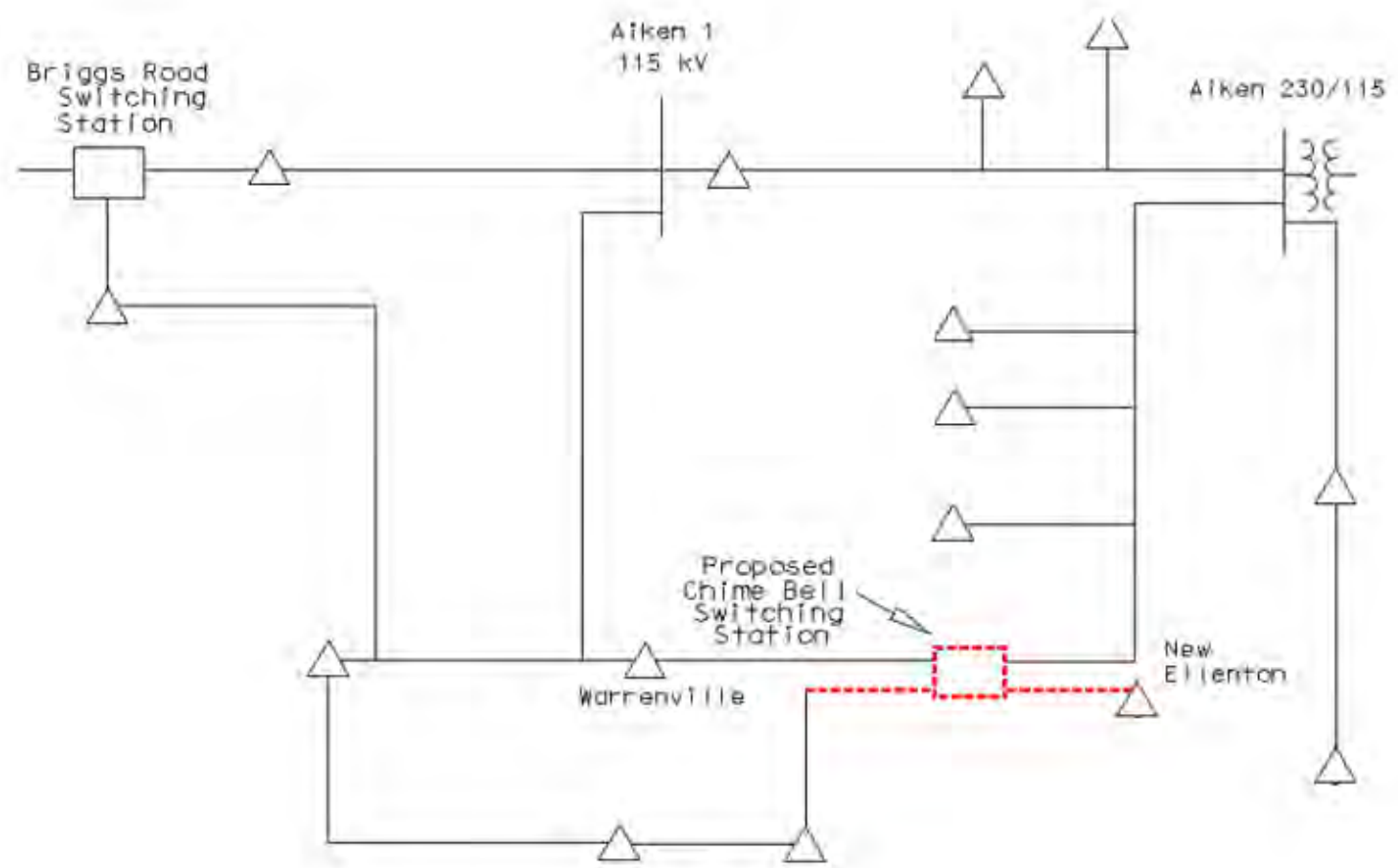
Project Status

Planned

Planned In-Service Date

December 2022

Chime Bell 115 kV Switching Station 12/2022



Aiken 230-115 kV Transformer Addition

Project Description

At the Aiken 230-115 kV Substation, extend the 115 kV bus and install a 115 kV bus tie breaker and a second 230-115 kV transformer rated for 90/120/150//180 MVA .

Project Need

Studies indicate thermal loading issues on the Aiken 230-115kV transformer under contingency conditions. The addition of a second 230-115 kV transformer at the Aiken 230-115 kV Substation is expected to alleviate these thermal loading concerns.

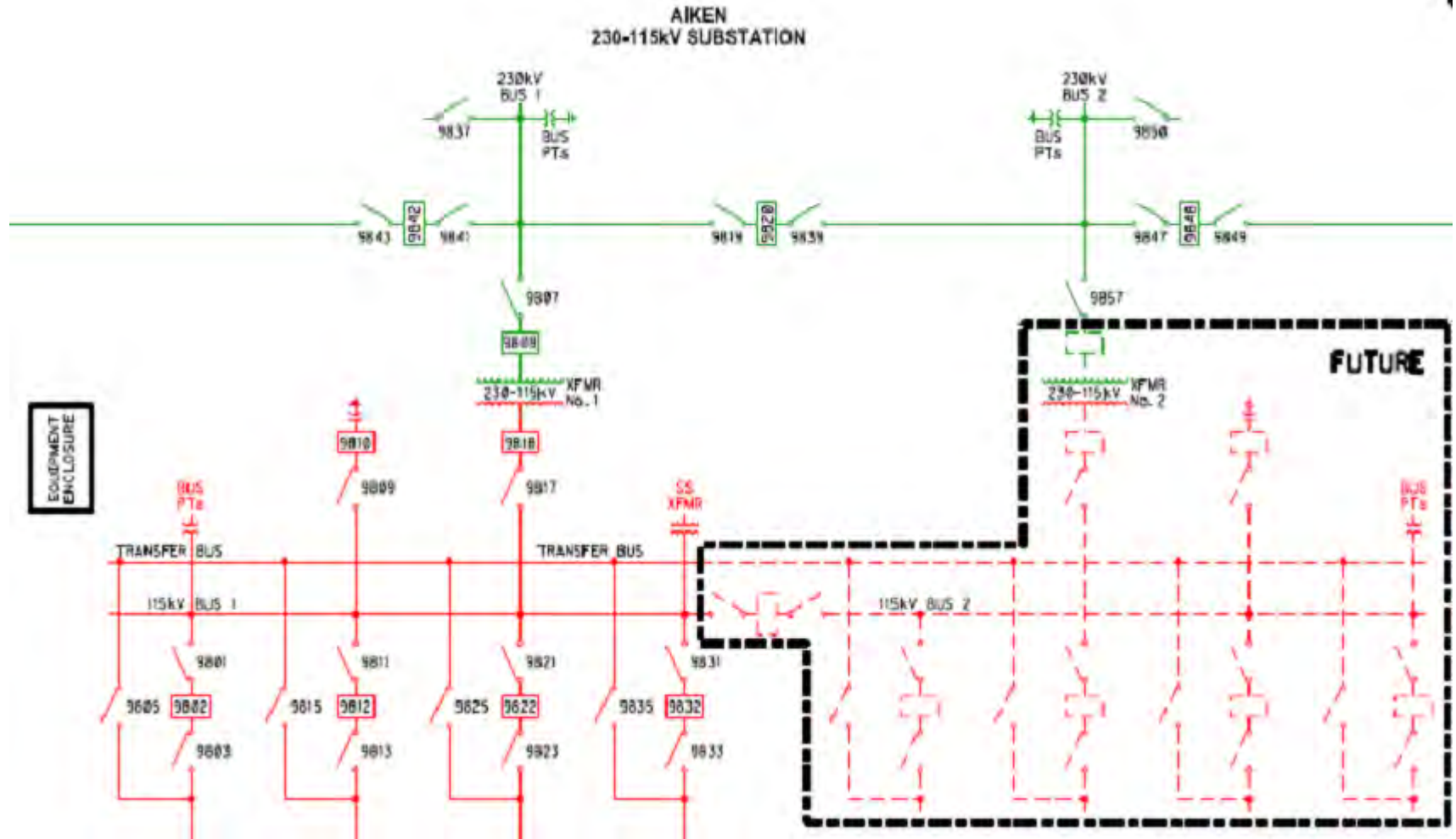
Project Status

Planned

Planned In-Service Date

November 2023

Aiken 230-115 kV Transformer Addition 11/2023



EQUIPMENT ENCLOSURE

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 new 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 issues on several facilities in the Myrtle Beach area under contingency conditions 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.

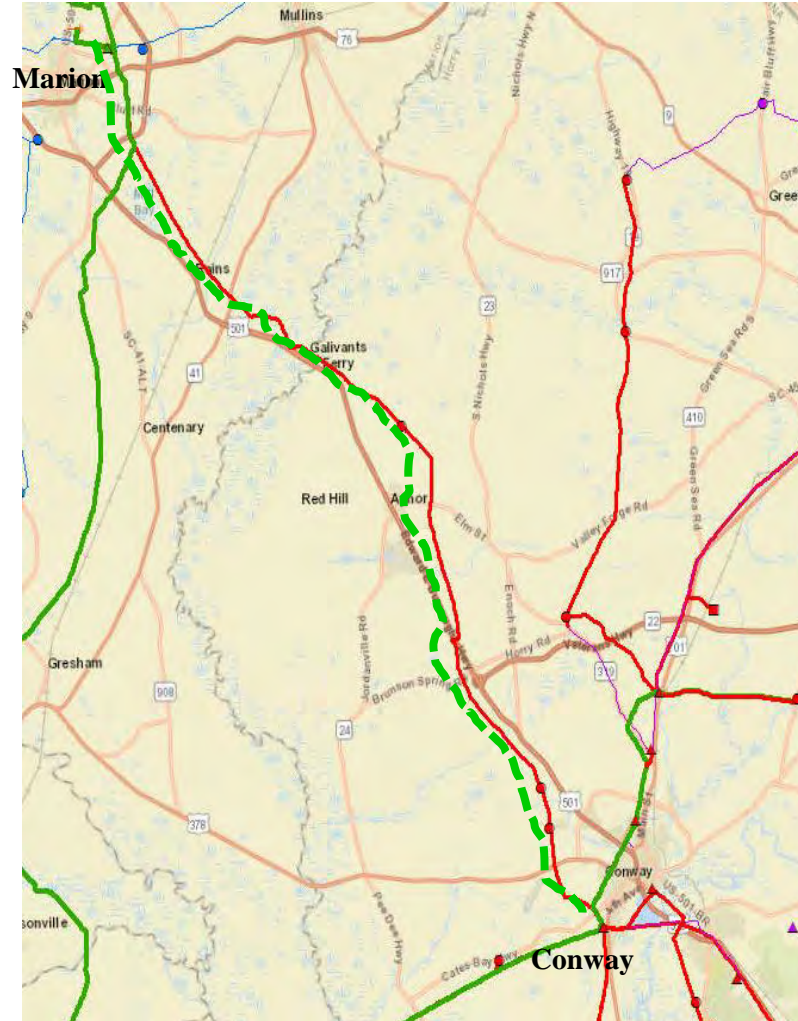
Project Status

Planned

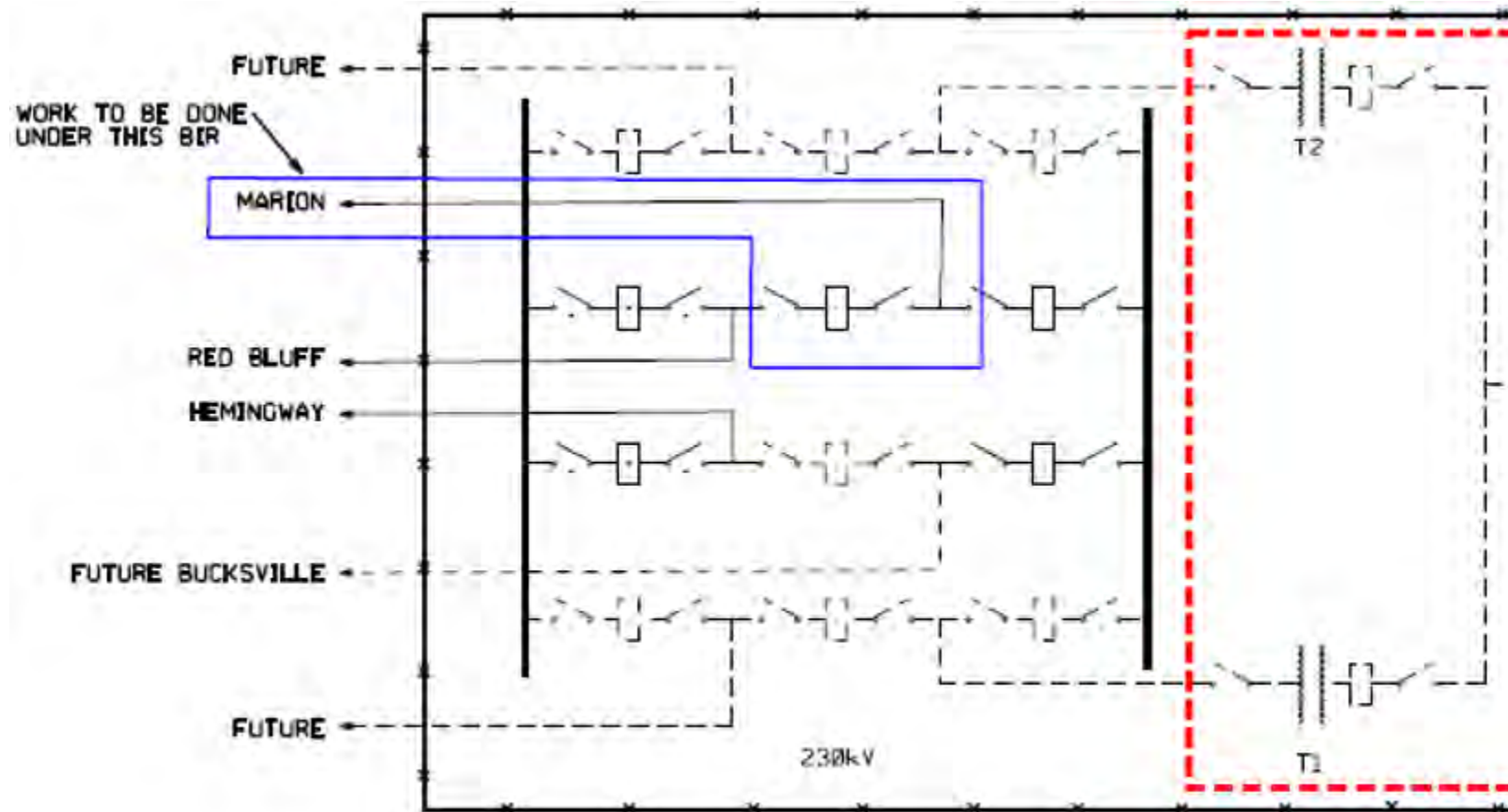
Planned In-Service Date

December 2025

Conway 230 kV Switching Station Marion-Conway 230 kV line



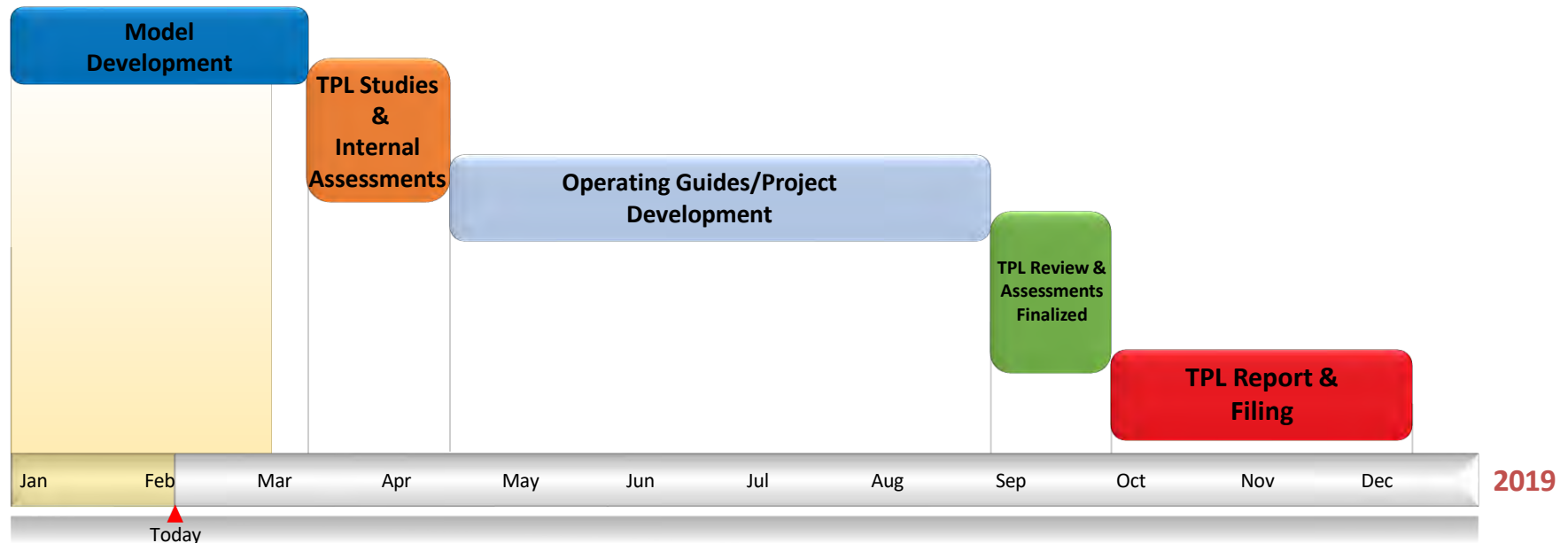
Conway 230 kV Switching Station Marion-Conway 230 kV line



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

Webex

February 5, 2020