SERTP – 4th Quarter Meeting

Annual Transmission Planning Summit & Assumptions Input Meeting

December 14th, 2022

TEAMS

Process Information

- The SERTP process is a transmission planning process.
- Please contact the respective transmission provider for questions related to real-time operations or Open Access Transmission Tariff (OATT) transmission service.
- SERTP Website Address:
  - www.southeasternrtp.com

2022 SERTP

Agenda

- **Economic Planning Studies**
  - Final Results
- **Ten (10) Year Regional Transmission Plan**
  - Planning Horizon 2022-2032
- **2023 Preliminary Modeling Input Assumptions**
  - Planning Horizon 2023-2033
- **SERTP Regional Transmission Analyses**
- **Miscellaneous Updates**
- **Upcoming 2023 SERTP Process**

SERTP Preliminary

Economic Planning Studies

Economic Planning Studies

Economic Planning Studies Process

- Economic Planning Studies were chosen by the Regional Planning Stakeholder Group “RPSG” in March at the 2022 SERTP 1st Quarter Meeting.
- Key study criteria, methodologies, and input assumptions were finalized in May.
- These studies represent analyses of hypothetical scenarios requested by the stakeholders and **do not** represent an actual transmission need or commitment to build.

Economic Planning Studies

- **Southern Company to Duke Energy Carolinas**
  - 1000 MW (2032 Summer Peak)
- **Dominion Energy South Carolina (Formerly SCEG) to Duke Energy Carolinas**
  - 1000 MW (2032 Summer Peak)
- **Southern Company to Santee Cooper**
  - 600 MW (2027 Winter Peak)
- **Southern Company to Santee Cooper**
  - 500 MW (2024 Summer Peak)
- **Duke Energy Carolinas to Santee Cooper**
  - 600 MW (2027 Winter Peak)

Economic Planning Studies

Power Flow Cases Utilized

- **Load Flow Cases:**
  - 2022 Series Version 1 SERTP Regional Models
    - 2024 Summer Peak
    - 2027 Winter Peak
    - 2032 Summer Peak

Economic Planning Studies

Preliminary Report Components

- **The SERTP reported, at a minimum, results on elements of 115 kV and greater:**
  - Thermal loadings greater than 90% for facilities that are negatively (+5%) impacted by the proposed transfers
  - Voltages appropriate to each participating transmission owner's planning criteria
  - Overloaded facilities that had a low response to the requested transfer were excluded and issues identified that are local in nature were also excluded
- **For each economic planning study request, the results of that study include:**
  1. Limit(s) to the transfer
  2. Potential transmission enhancement(s) to address the limit(s)
  3. Planning-level cost estimates and in-service dates for the potential transmission enhancement(s)

Economic Planning Studies

Process Information

- The following information depicts potential enhancements for the proposed transfer levels above and beyond existing, firm commitments. Therefore, this information does not represent a commitment to proceed with the recommended enhancements nor implies that the recommended enhancements could be implemented by the study dates.

- These potential solutions only address constraints identified within the SERTP Sponsors' areas that are associated with the proposed transfers. Other Balancing Areas were not monitored which could result in additional limitations and required system enhancements.

Economic Planning Studies

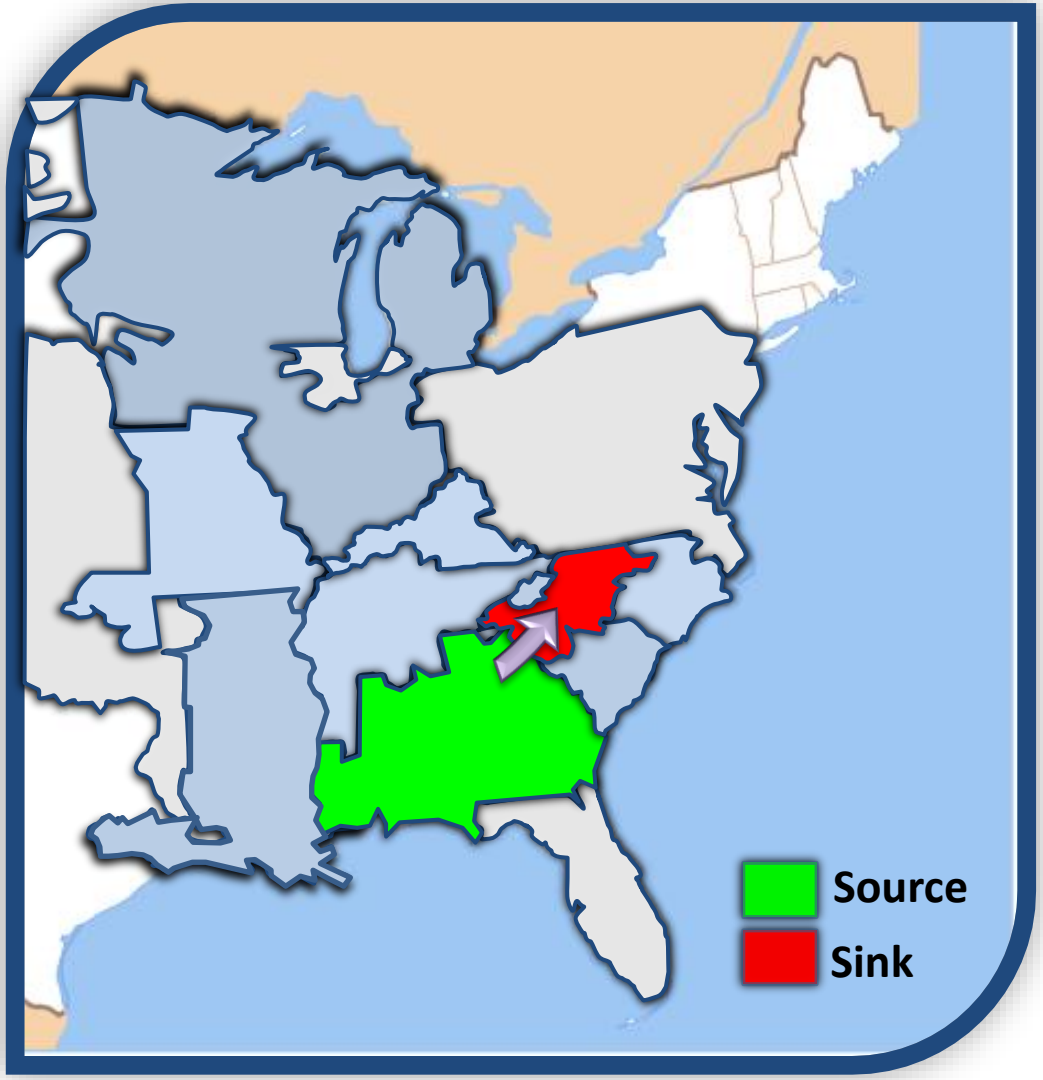
Economic Planning Studies – Preliminary Results

SOCO to DEC – 1000 MW

SOCO – DEC 1000 MW

Study Assumptions

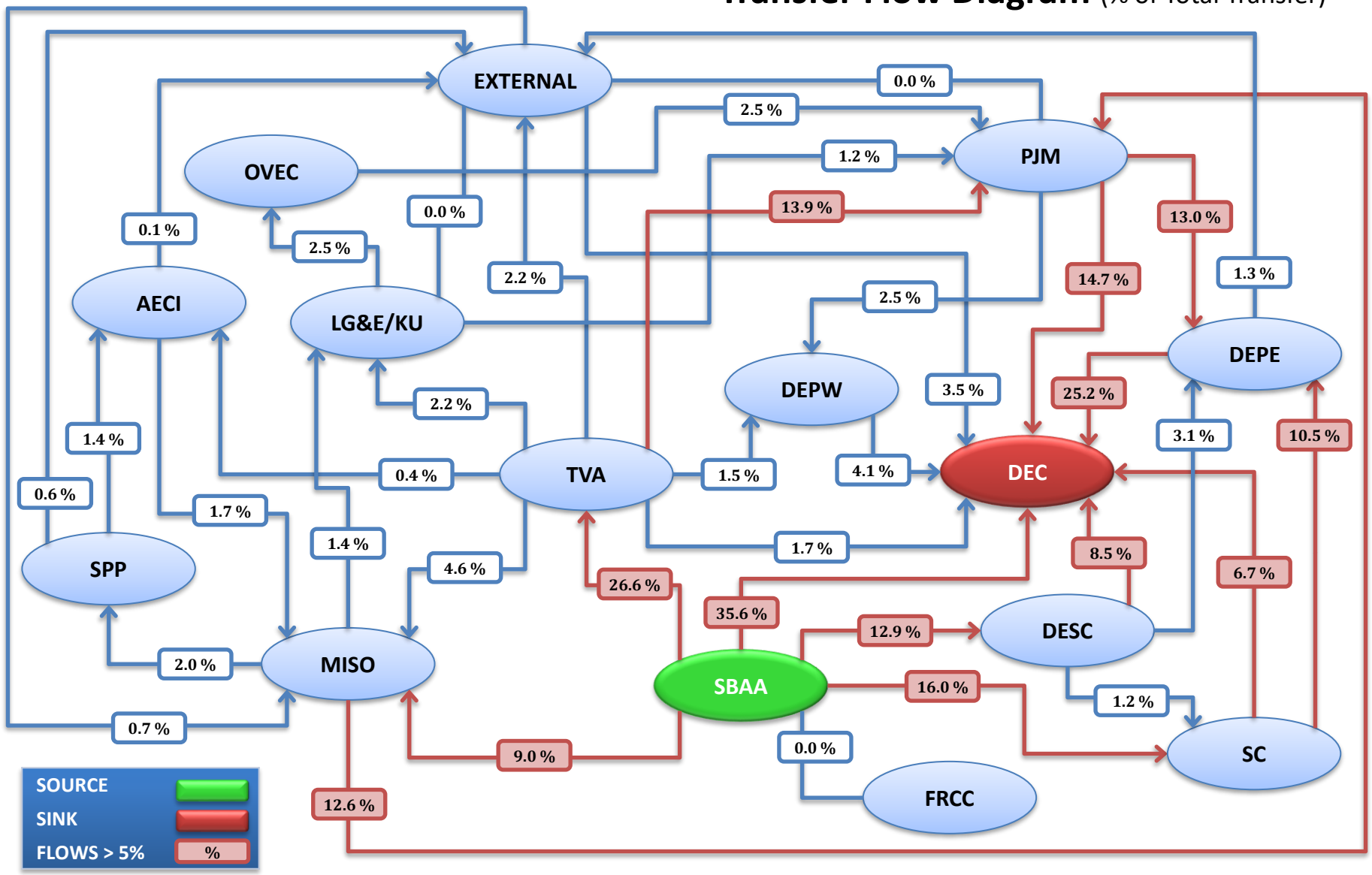
- **Source:** Generation within SOCO
- **Sink:** Generation within DEC
- **Transfer Type:** Generation to Generation
- **Year:** 2032
- **Load Level:** Summer Peak



Southeastern Regional
TRANSMISSION PLANNING

SOCO – DEC 1000 MW

Transfer Flow Diagram (% of Total Transfer)



SOCO – DEC 1000 MW

Transmission System Impacts

- **Transmission System Impacts Identified:**
  - DEC
  - Southern Company

- **Potential Transmission Enhancements Identified:**
  - DEC
  - Southern Company

SERTP TOTAL ($2022) = $174.1 Million

SOCO – DEC 1000 MW

Transmission System Impacts – *SERTP*

Table 3: Transmission System Impacts - SERTP

Balancing Authority	Planning Level Cost Estimate
Associated Electric Cooperative (AECI)	$0
Duke Carolinas (DEC)	$169 Million
Duke Progress East (DEPE)	$0
Duke Progress West (DEPW)	$0
Louisville Gas & Electric and Kentucky Utilities (LG&E/KU)	$0
PowerSouth (PS)	$0
Southern (SBAA)	$5.1 Million
Tennessee Valley Authority (TVA)	$0
SERTP TOTAL ($2022)	**$174.1 Million**

SOCO – DEC 1000 MW

Significant Constraints Identified – *DEC*

Table 1: Significant Constraints - DEC

Potential Enhancement	Limiting Element	Rating (MVA)	Thermal Loadings (%)	
			Without Request	With Request
P1	Lee Steam – Shady Grove Tie 100 kV TL (Lee Line)	132	88.1	94.5
P1	Lee Steam – Shady Grove Tie 100 kV TL (Piedmont Line)	132	94.5	101
P2	Wateree Switching – Great Falls Switching 100 kV TL	116	89	116.1
NA*	Catawba Nuclear – Allen Steam 230 kV TL	1055	92.6	104.1

*Project to address is in the current expansion plan, but not in version 1 models
+Potential future constraints can be found in the Economic Studies Report on the SERTP Website

SOCO – DEC 1000 MW

Potential Enhancements Identified – *DEC*

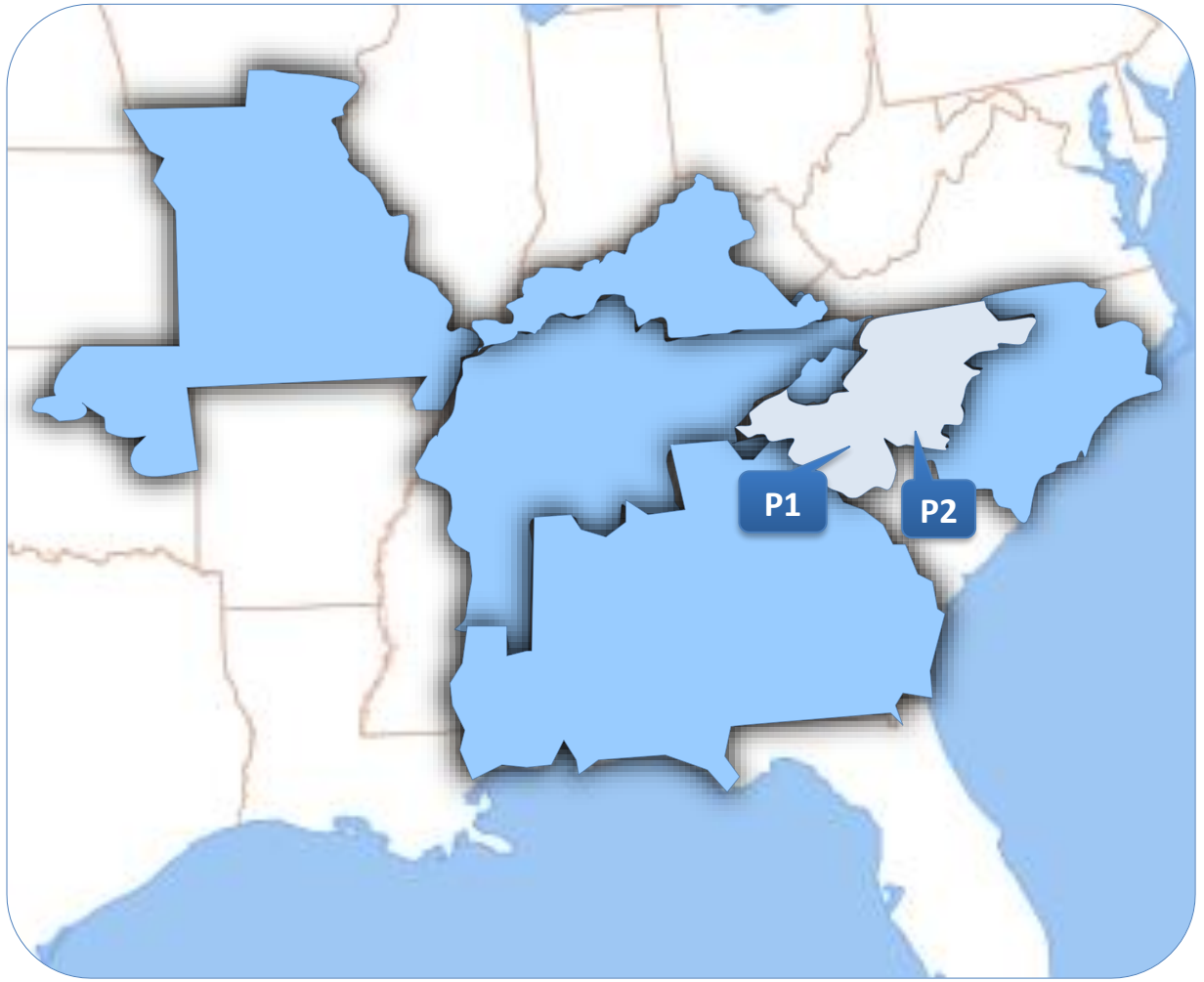
Table 2: Potential Enhancements - DEC

Item	Potential Enhancement	Planning Level Cost Estimate
P1	**Lee Steam Station – Shady Grove Tie 100 kV T.L.** • Rebuild both Lee Steam Station – Shady Grove Tie 100 kV Transmission Lines with 1158 ACSS/TW rated at 200˚C. Total rebuild length is 24.5 miles	**$90 Million**
P2	**Wateree Switching Station–Great Falls Switching Station 100 kV T.L.** • Rebuild 19.8 miles of the Wateree Switching Station – Great Falls Switching Station 100 kV T.L. with 954 ACSR rated at 120˚C	**$79 Million**
DEC TOTAL ($2022)		**$ 169 Million**(1)

(1) Total planning level cost estimate does not include the cost of projects that are included in SERTP Sponsors' expansion plans and are scheduled to be completed by June 1st of the study year. The studied transfer depends on these projects being in-service, and the cost to support the study transfer could be greater than the total shown above if any of these projects are delayed or cancelled.

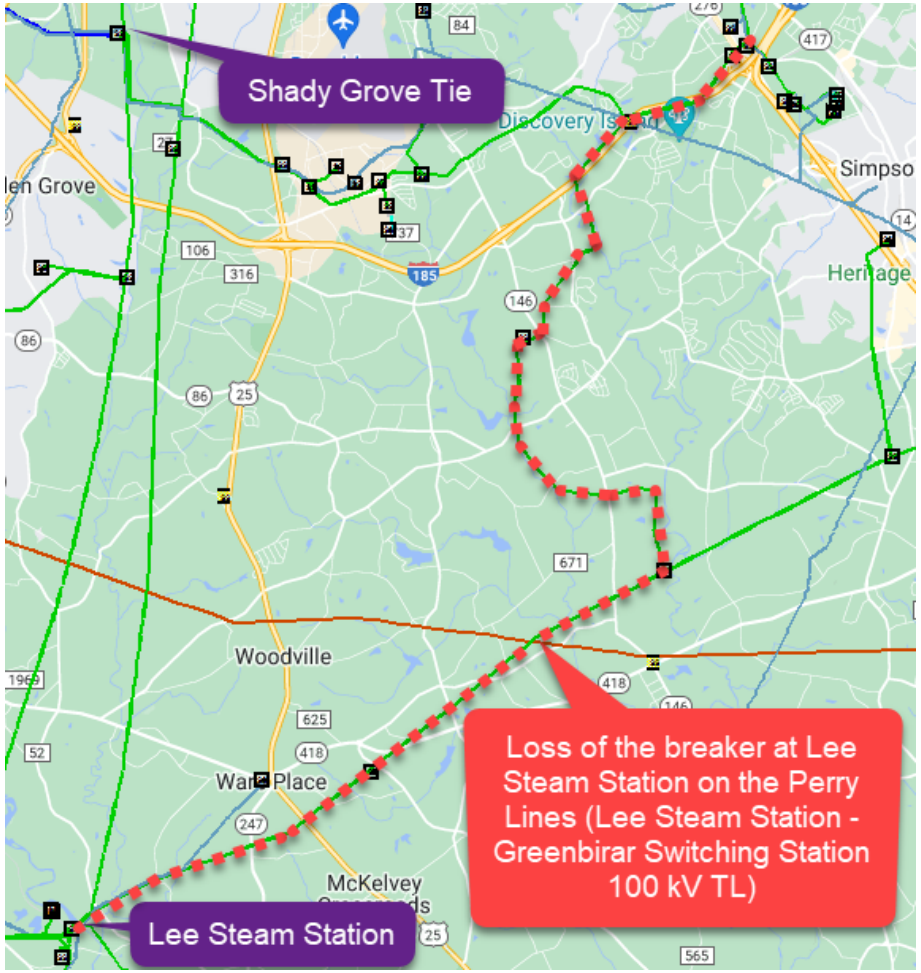
SOCO – DEC 1000 MW

Potential Enhancement Locations – *DEC*



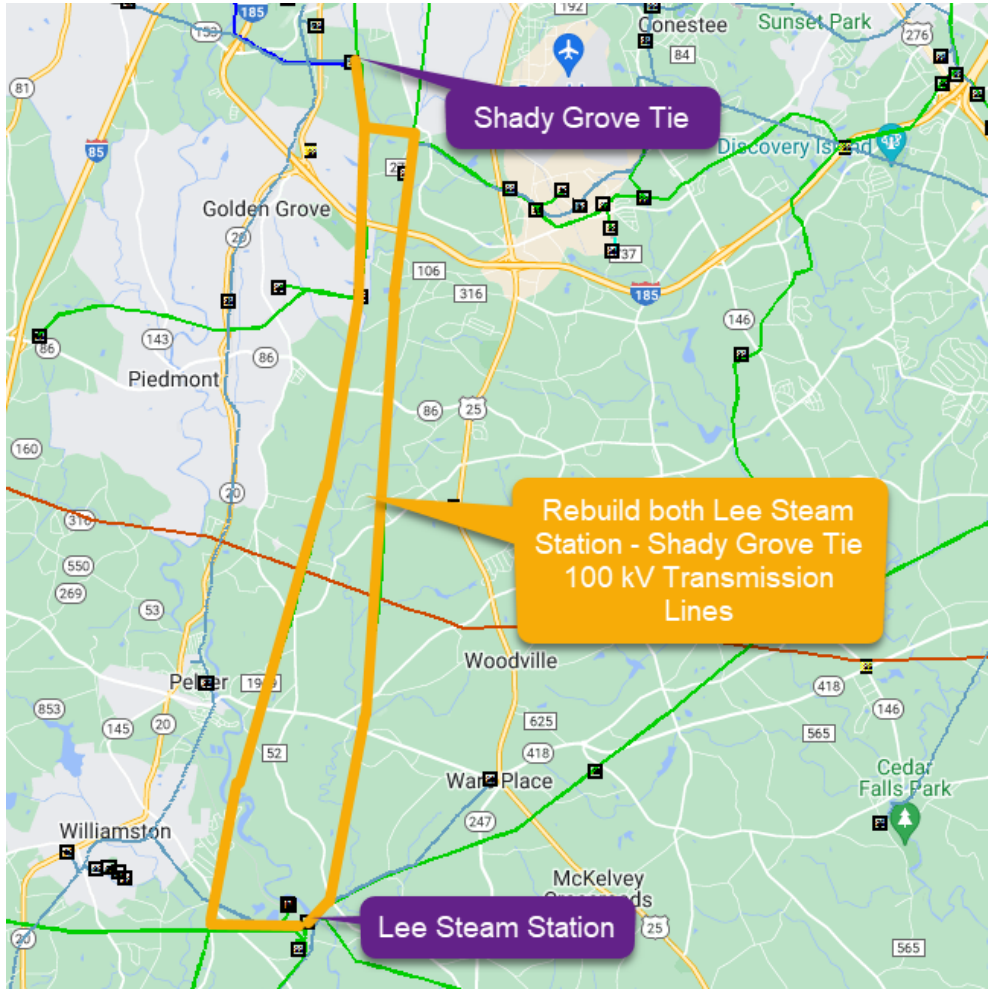
SOCO – DEC 1000 MW

Significant Constraint (P1) – *DEC*



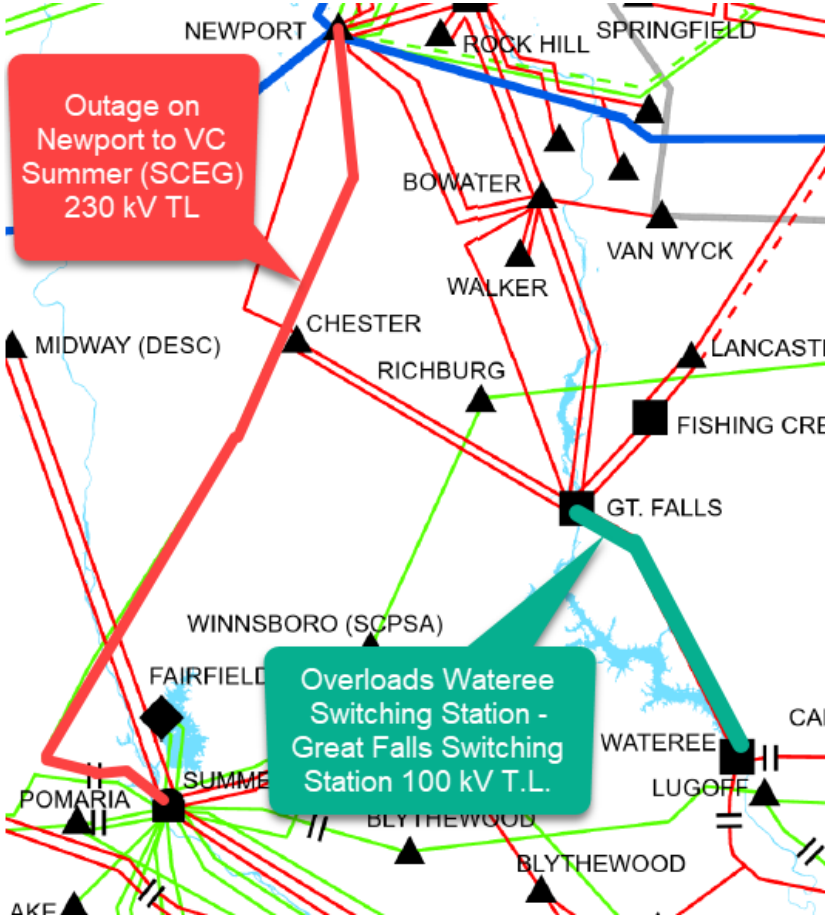
SOCO – DEC 1000 MW

Potential Enhancement (P1) – *DEC*



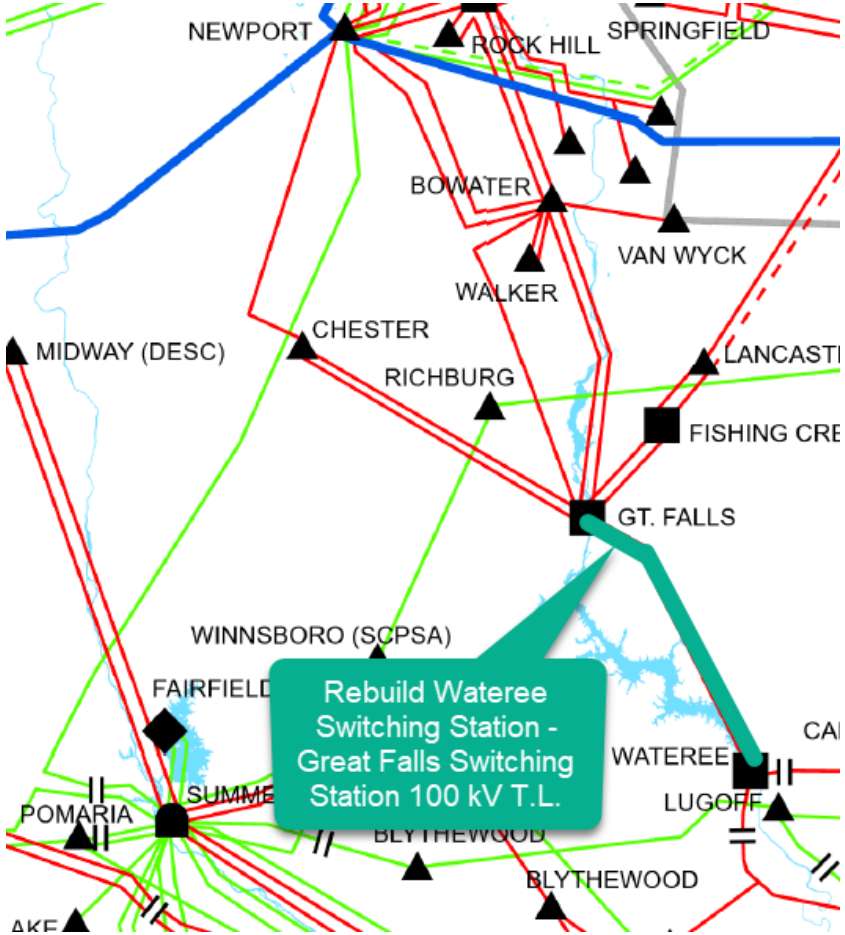
SOCO – DEC 1000 MW

Significant Constraint (P2) – *DEC*



SOCO – DEC 1000 MW

Potential Enhancement (P2) – *DEC*



SOCO – DEC 1000 MW

Significant Constraints Identified – *SOCO*

Table 1: Significant Constraints - SOCO

Potential Enhancement	Limiting Element	Rating (MVA)	Thermal Loadings (%)	
			Without Request	With Request
P1	Sigman Road – Cornish Mountain 115kV T.L	188	95.1	101.1

SOCO – DEC 1000 MW

Potential Enhancements Identified – *SOCO*

Table 2: Potential Enhancements - SOCO

Item	Potential Enhancement	Planning Level Cost Estimate
P1	**Sigman Road – Cornish Mountain 115kV T.L.** • Rebuild the Sigman Road – Cornish Mountain 115kV section, approximately 5.3 miles of 100C 636.0 ACSR	**$5.1 Million**
SOCO TOTAL ($2022)		**$ 5.1 Million**(1)

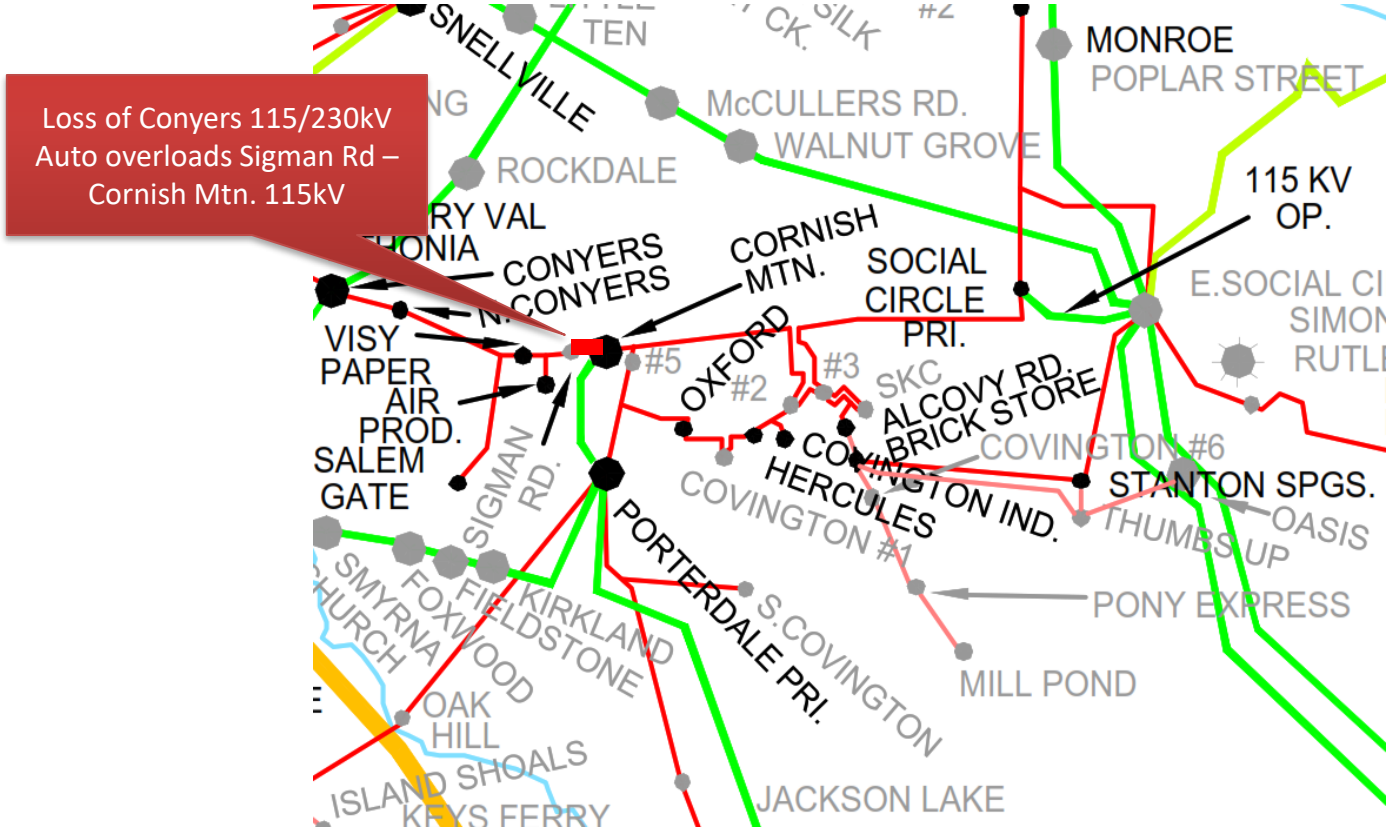
(1) Total planning level cost estimate does not include the cost of projects that are included in SERTP Sponsors' expansion plans and are scheduled to be completed by June 1st of the study year. The studied transfer depends on these projects being in-service, and the cost to support the study transfer could be greater than the total shown above if any of these projects are delayed or cancelled.

SOCO – DEC 1000 MW

Potential Enhancement Locations – *SOCO*

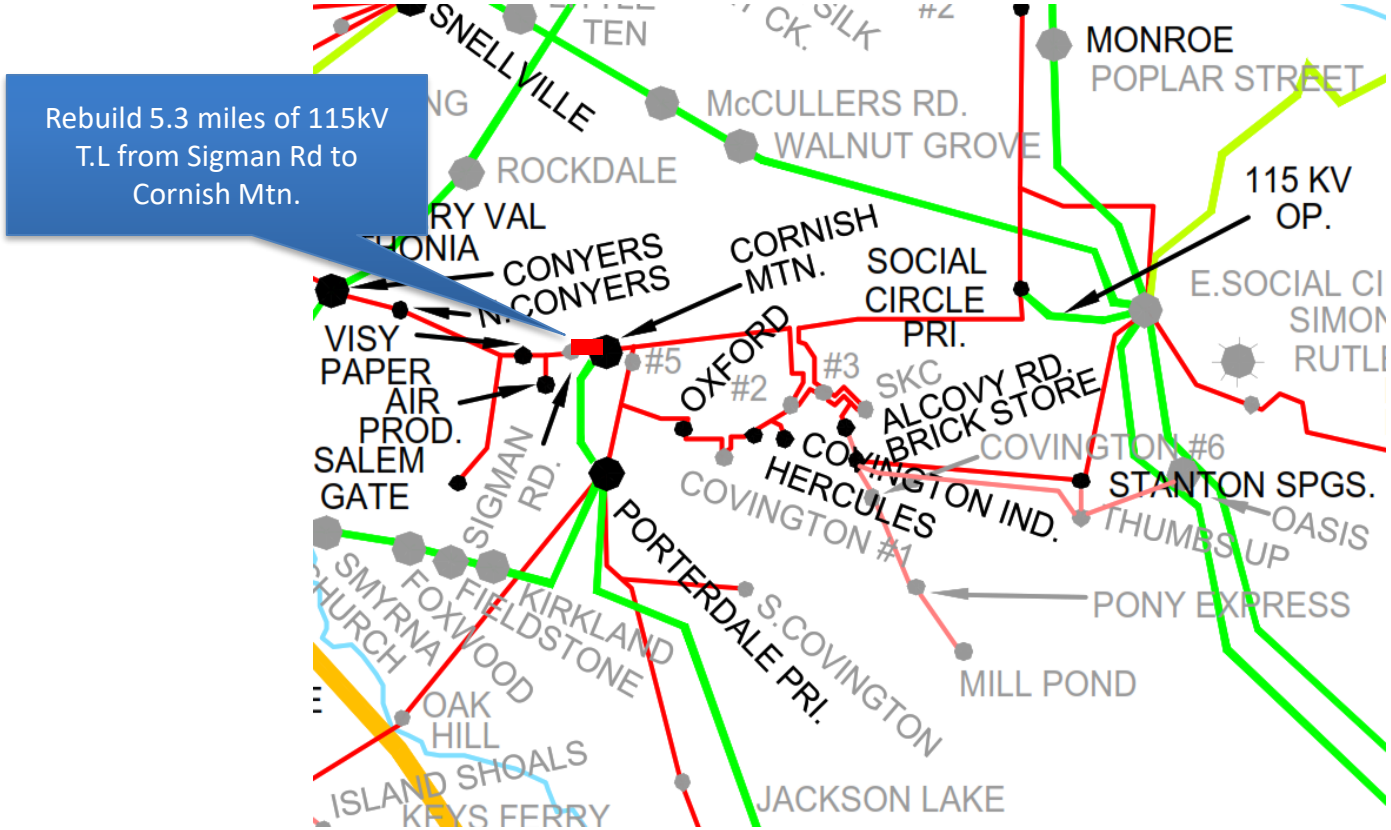
SOCO – DEC 1000 MW

Significant Constraint (P1) – *SOCO*



SOCO – DEC 1000 MW

Significant Constraint (P1) – *SOCO*



Economic Planning Studies

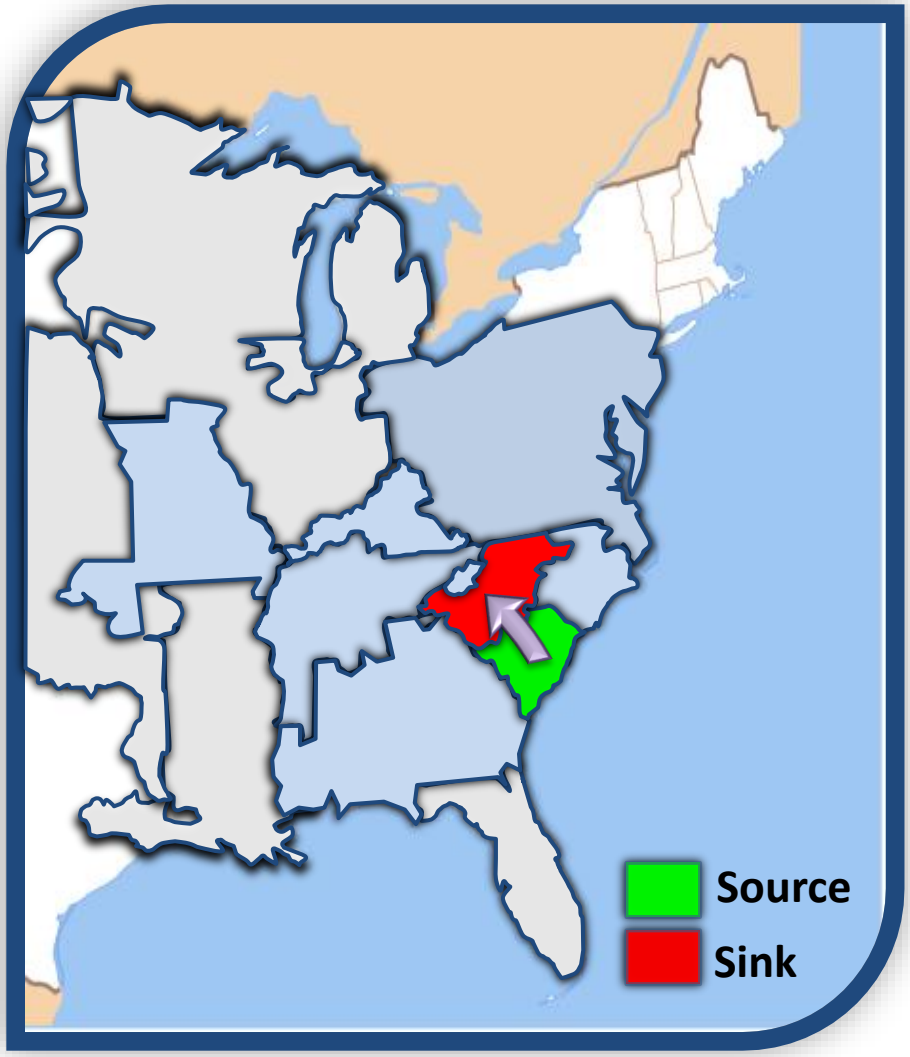
Economic Planning Studies – Preliminary Results

DESC to DEC – 1000 MW

DESC – DEC 1000 MW

Study Assumptions

- **Source:** Generation Scale within DESC
- **Sink:** Generation with DEC
- **Transfer Type:** Generation to Generation
- **Year:** 2032
- **Load Level:** Summer Peak



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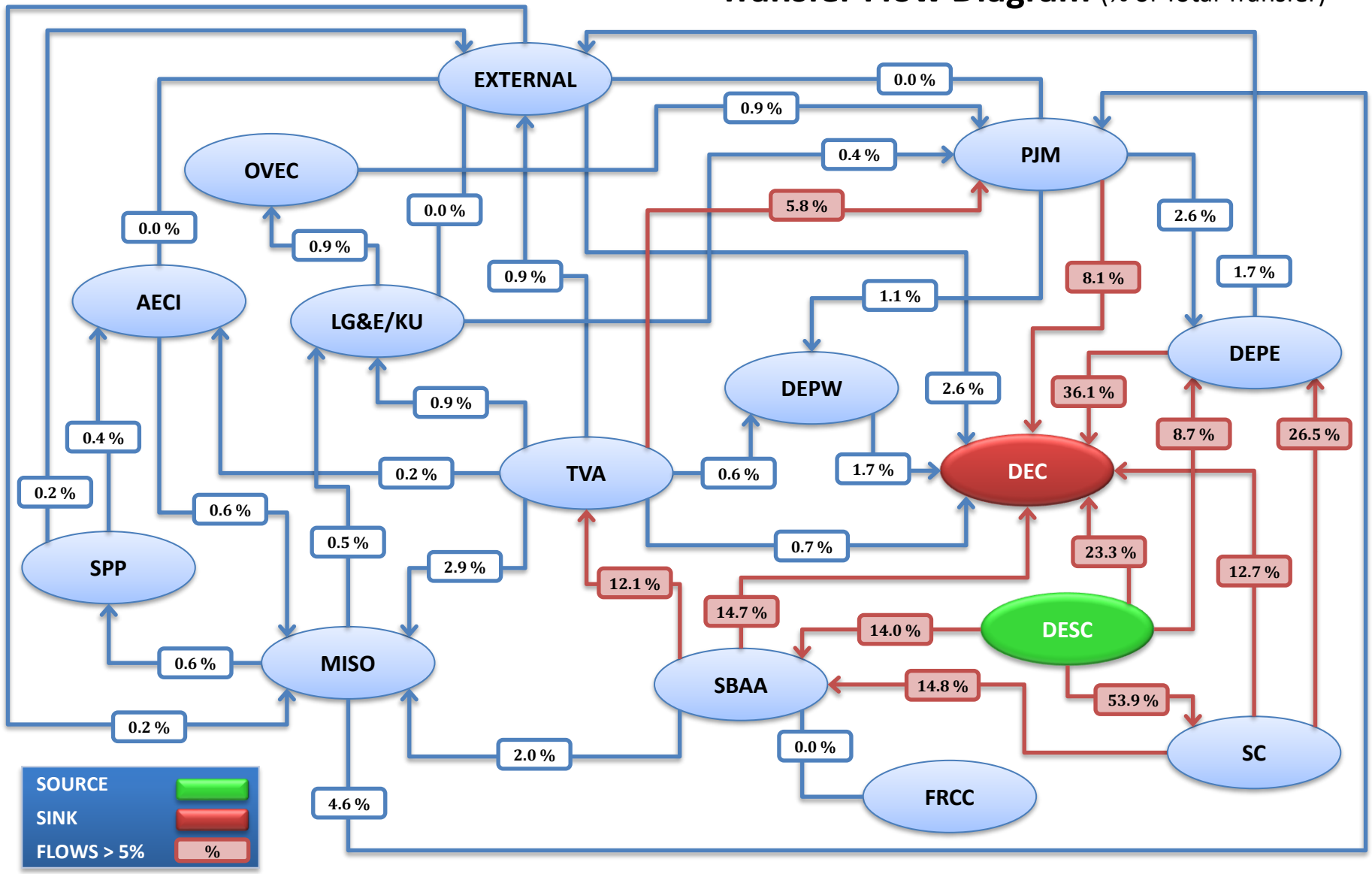
DESC – DEC 1000 MW

Transfer Flow Diagram (% of Total Transfer)



DESC – DEC 1000 MW

Transmission System Impacts – *SERTP*

- **Transmission System Impacts Identified:**
  - DEC

- **Potential Transmission Enhancements Identified:**
  - DEC

SERTP Total ($2022) = $281 Million

DESC – DEC 1000 MW

Transmission System Impacts – *SERTP*

Table 6: Transmission System Impacts - SERTP

Balancing Authority	Planning Level Cost Estimate
Associated Electric Cooperative (AECI)	$0
Duke Carolinas (DEC)	$281 Million
Duke Progress East (DEPE)	$0
Duke Progress West (DEPW)	$0
Louisville Gas & Electric and Kentucky Utilities (LG&E/KU)	$0
PowerSouth (PS)	$0
Southern (SBAA)	$0
Tennessee Valley Authority (TVA)	$0
SERTP TOTAL ($2022)	**$281 Million**

DESC – DEC 1000 MW

Significant Constraints Identified – *DEC*

Table 1: Significant Constraints - DEC

Potential Enhancement	Limiting Element	Rating (MVA)	Thermal Loadings (%)	
			Without Request	With Request
P1	Lee Steam – Shady Grove Tie 100 kV TL (Lee Line)	132	88.1	94.5
P1	Lee Steam – Shady Grove Tie 100 kV TL (Piedmont Line)	132	94.5	101
P2	Clark Hill 115/100 kV Transformer	125	91.4	101.4
P3	Laurens Tie – Bush River Tie 100 kV TL	65	89.5	107.1
P4	Wateree Switching – Great Falls Switching 100 kV TL	116	89	130.4
NA*	Catawba Nuclear – Allen Steam 230 kV TL	1055	92.6	104.1

*Project to address is in the current expansion plan, but not in version 1 models
+Potential future constraints can be found in the Economic Studies Report on the SERTP Website

DESC – DEC 1000 MW

Potential Enhancements Identified – *DEC*

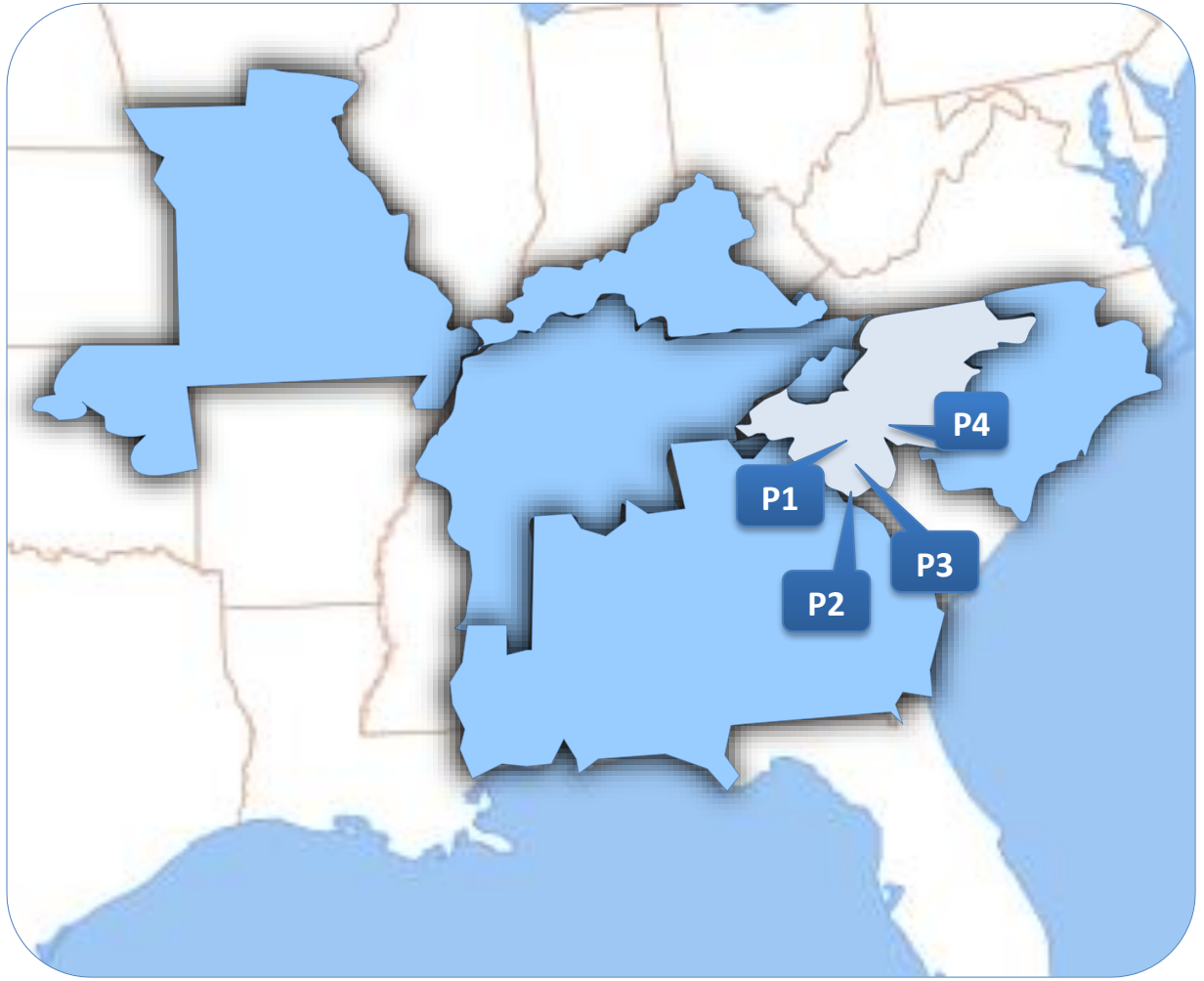
Table 2: Potential Enhancements - DEC

Item	Potential Enhancement	Planning Level Cost Estimate
P1	**Lee Steam Station – Shady Grove Tie 100 kV T.L.** • Rebuild both Lee Steam Station – Shady Grove Tie 100 kV Transmission Lines with 1158 ACSS/TW rated at 200˚C. Total rebuild length is 24.5 miles	**$90 Million**
P2	**Clark Hill 115/100 kV Transformer.** • Upgrade lowside terminal of the 115/100 kV transformer to improve rating	**$3 Million**
P3	**Laurens Tie – Bush River Tie 100 kV T.L.** • Rebuild 29.25 miles of the Laurens Tie – Bush River Tie 100 kV Transmission Lines with 1158 ACSS/TW rated at 200˚C.	**$109 Million**
P4	**Wateree Switching Station–Great Falls Switching Station 100 kV T.L.** • Rebuild 19.8 miles of the Wateree Switching Station – Great Falls Switching Station 100 kV T.L. with 954 rated at 120˚C	**$79 Million**
DEC TOTAL ($2022)		**$ 281 Million**(1)

(1) Total planning level cost estimate does not include the cost of projects that are included in SERTP Sponsors' expansion plans and are scheduled to be completed by June 1st of the study year. The studied transfer depends on these projects being in-service, and the cost to support the study transfer could be greater than the total shown above if any of these projects are delayed or cancelled.

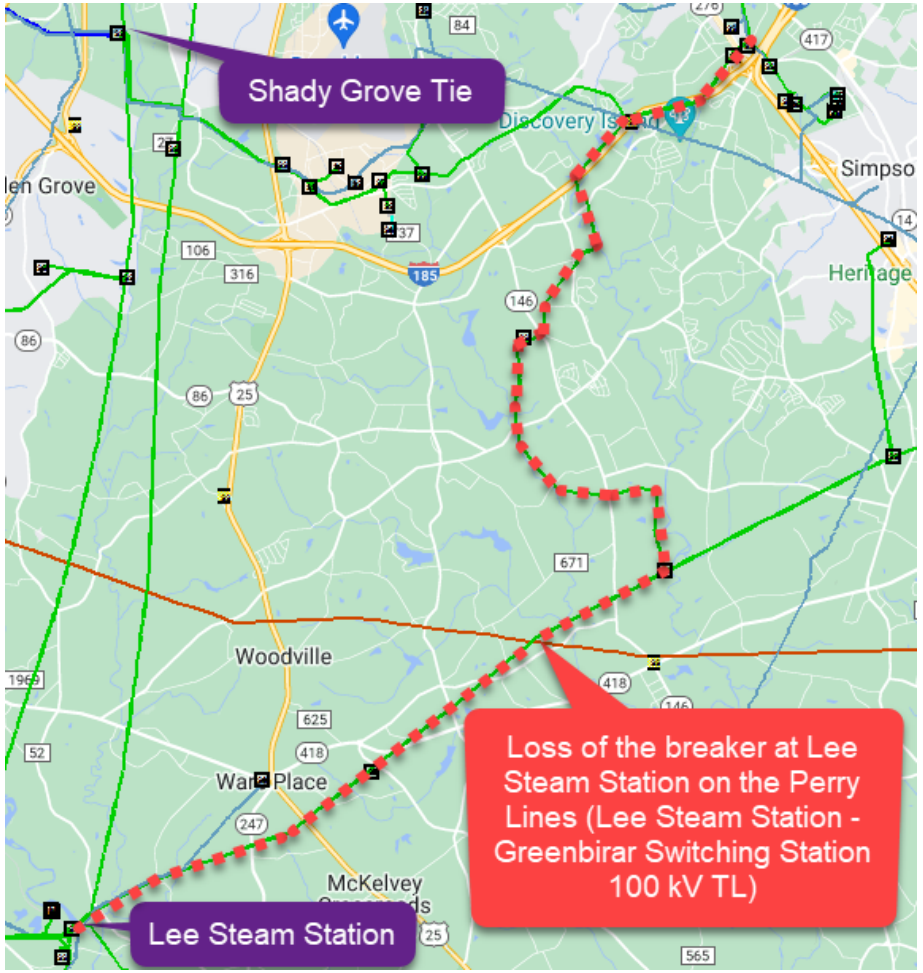
DESC – DEC 1000 MW

Potential Enhancement Locations – *DEC*



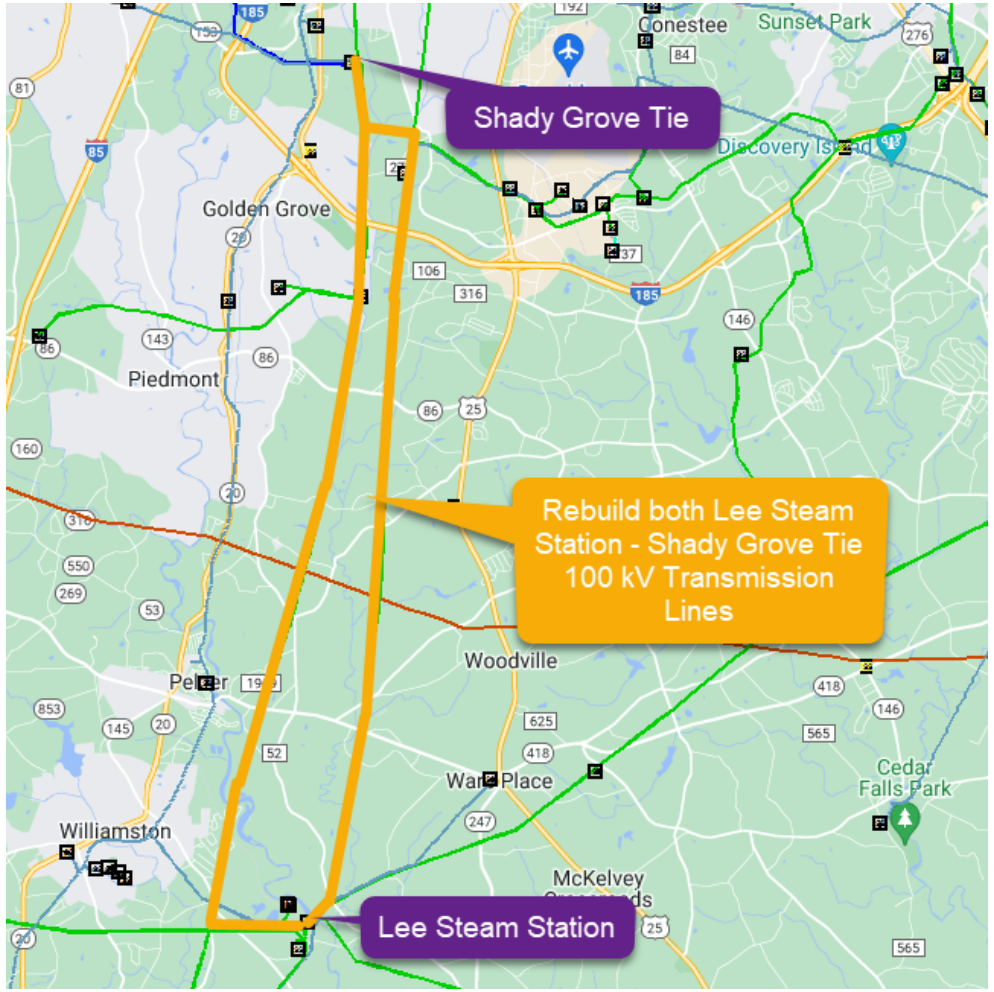
DESC – DEC 1000 MW

Significant Constraint (P1) – *DEC*



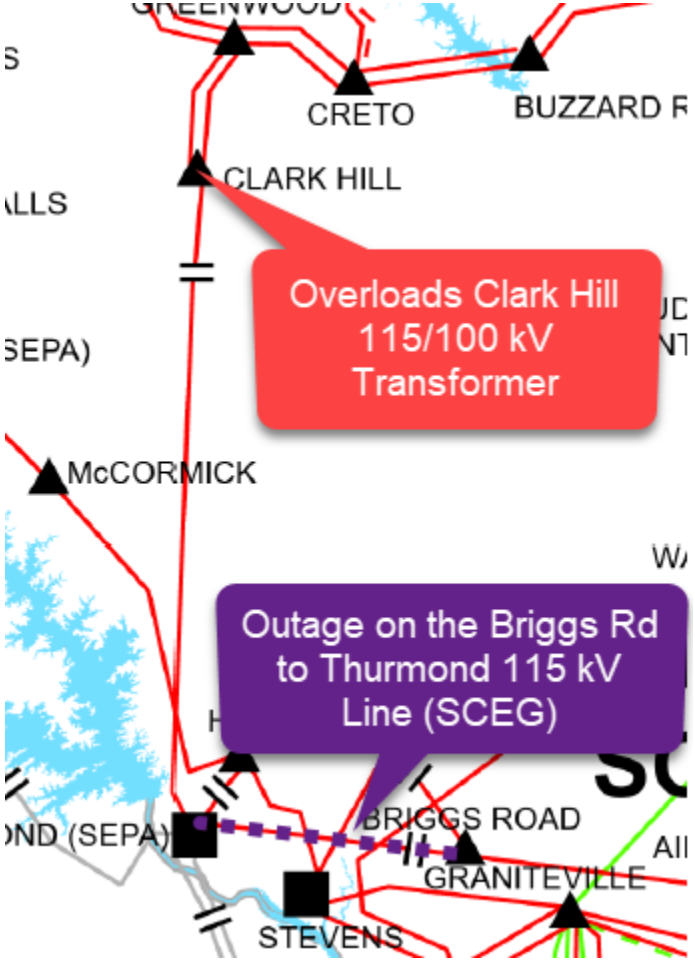
DESC – DEC 1000 MW

Potential Enhancement (P1) – *DEC*



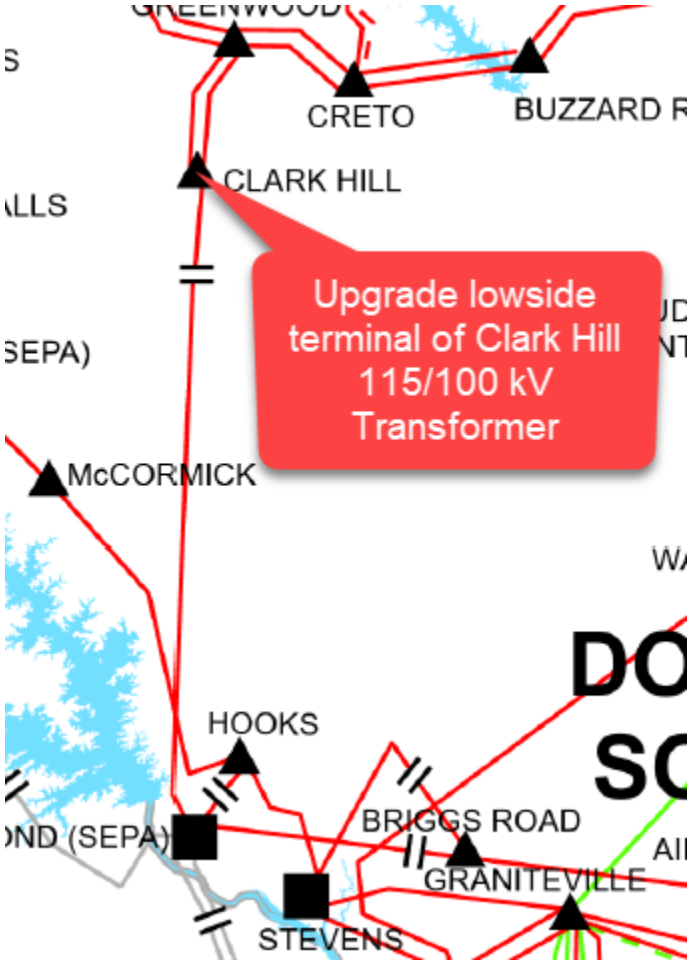
DESC – DEC 1000 MW

Potential Constraint (P2) – *DEC*



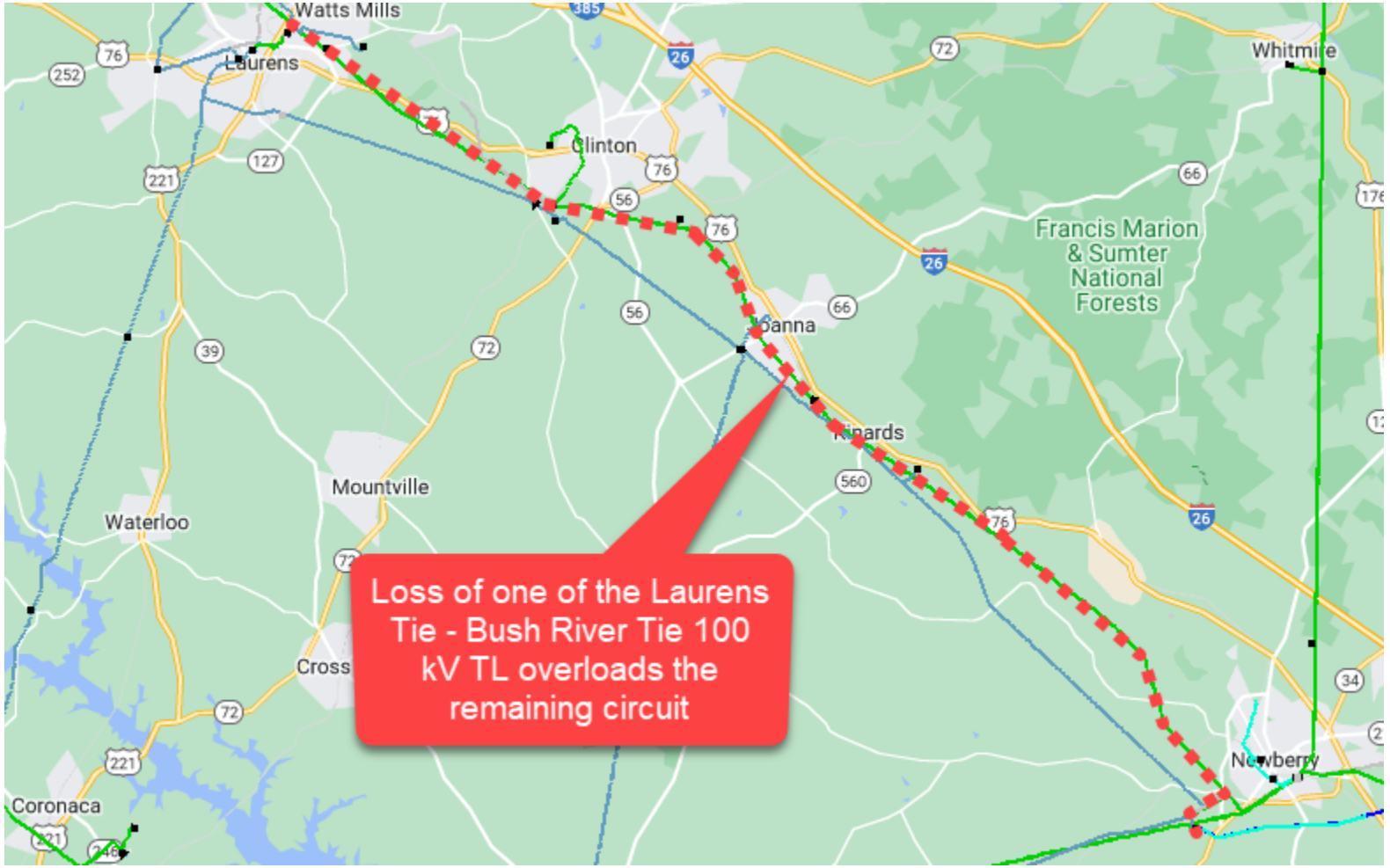
DESC – DEC 1000 MW

Significant Enhancement (P2) – *DEC*



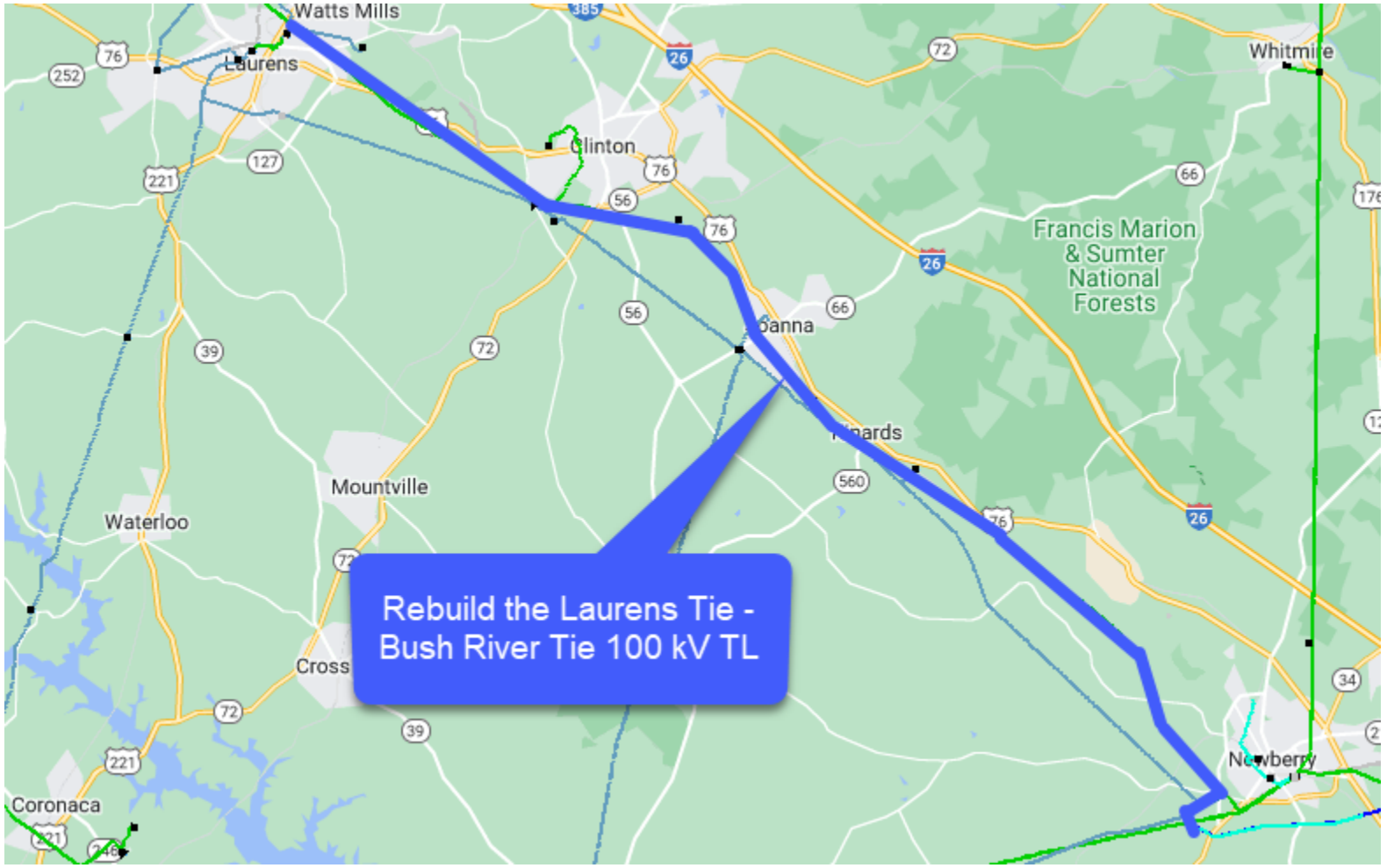
DESC – DEC 1000 MW

Significant Constraint (P3) – *DEC*



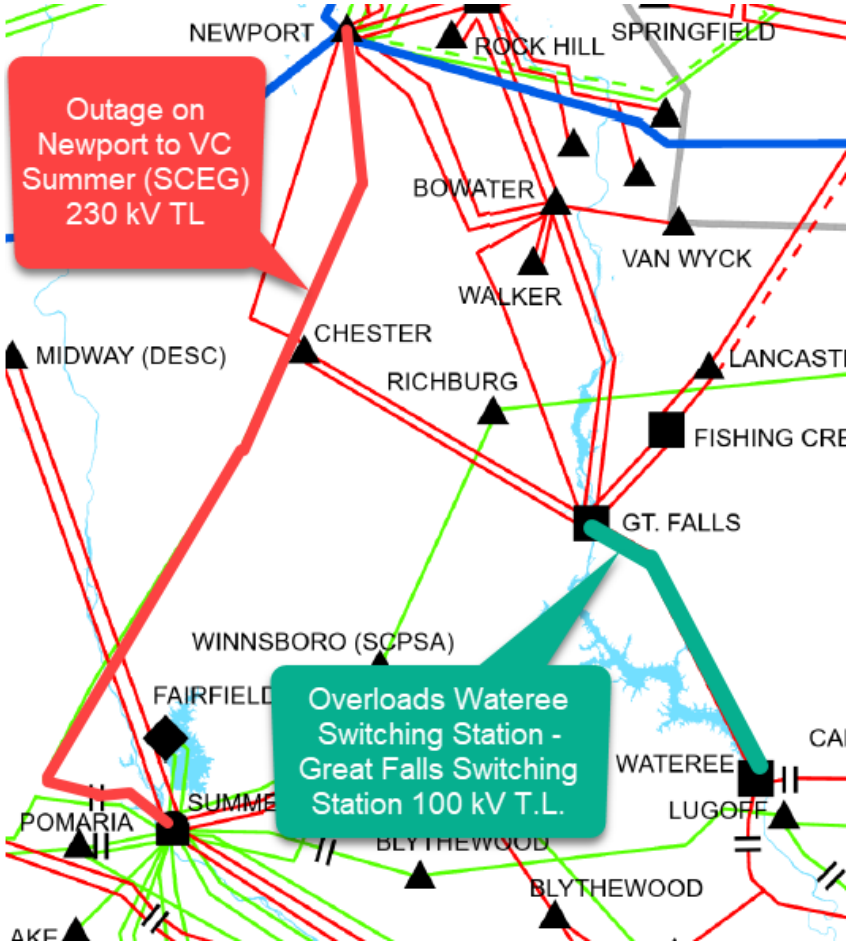
DESC – DEC 1000 MW

Potential Enhancement (P3) – *DEC*



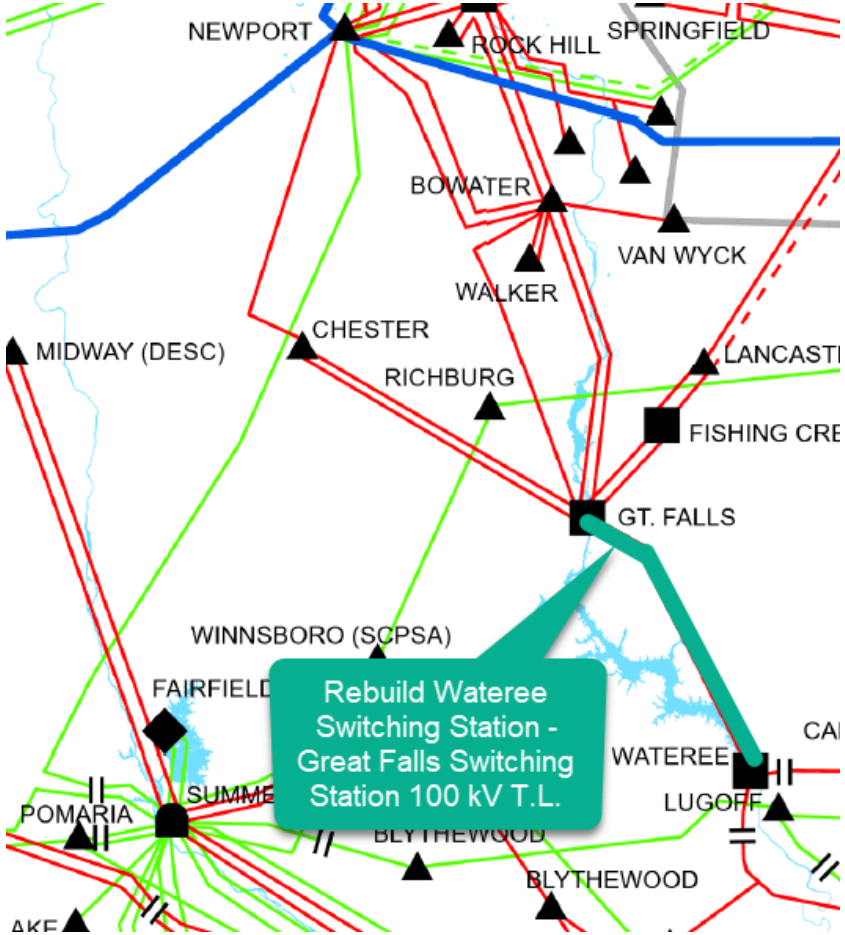
DESC – DEC 1000 MW

Significant Constraint (P4) – *DEC*



DESC – DEC 1000 MW

Potential Enhancement (P4) – *DEC*



Economic Planning Studies

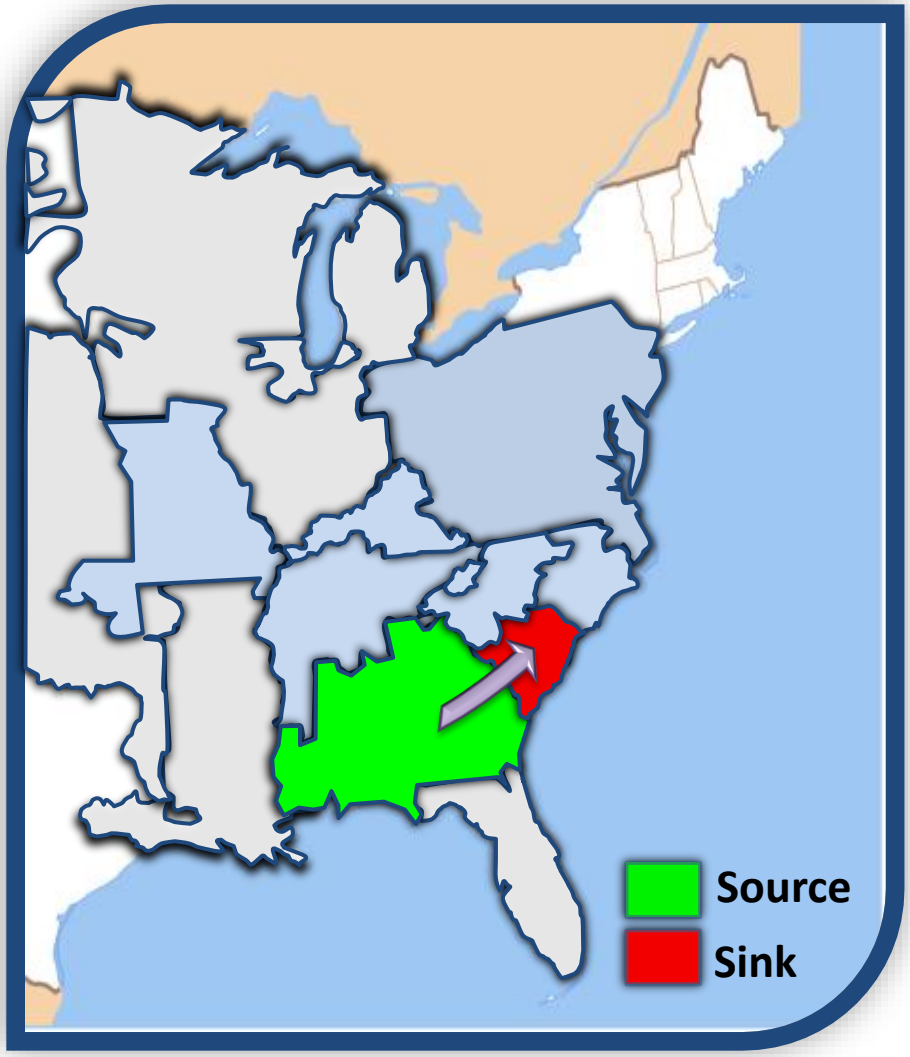
Economic Planning Studies – Preliminary Results

SOCO to SC – 600MW

SOCO – SC 600 MW

Study Assumptions

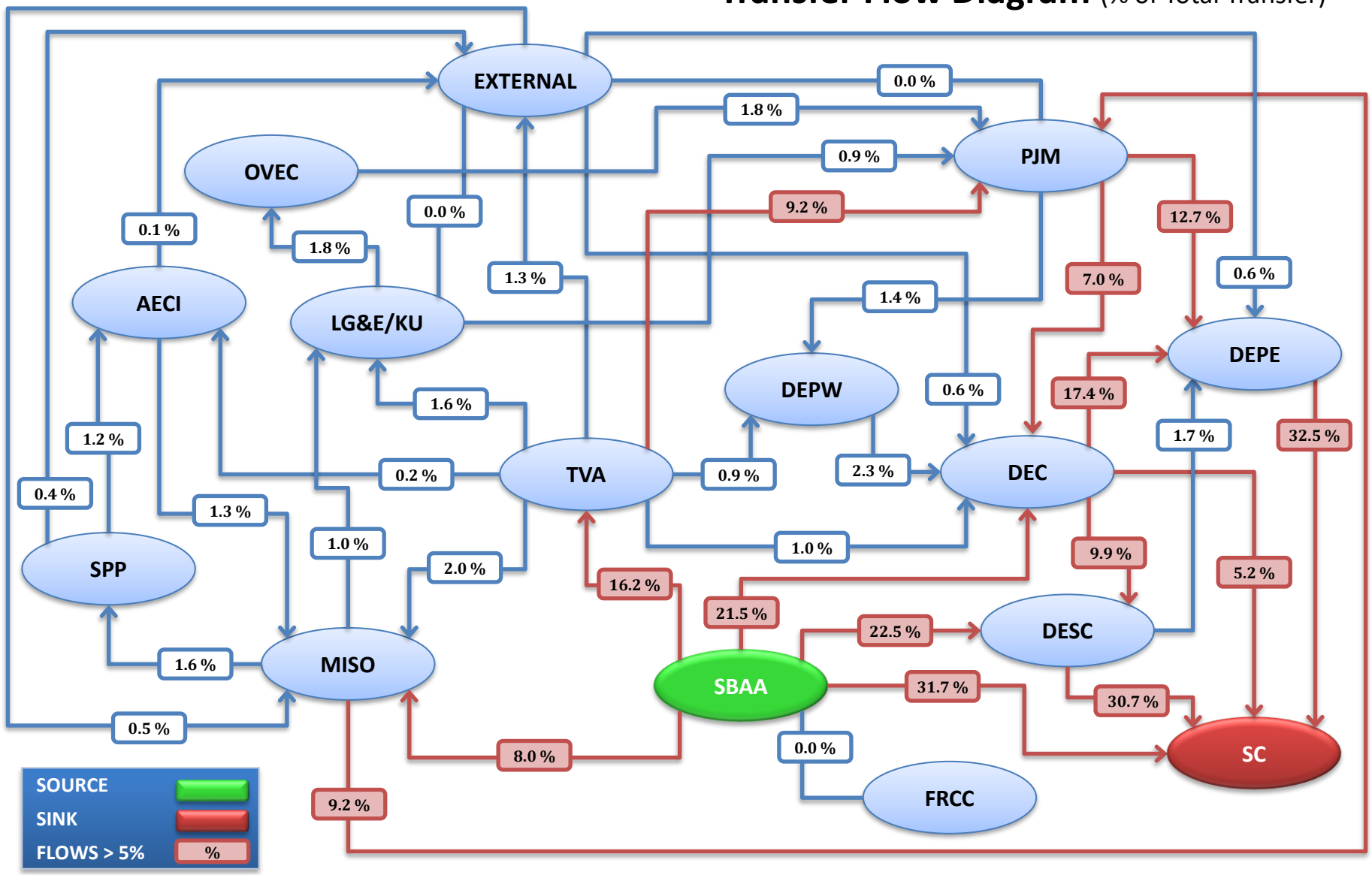
- **Source:** Generation Scale within SOCO
- **Sink:** Generation Scale with SC
- **Transfer Type:** Generation to Generation
- **Year:** 2027
- **Load Level:** Winter Peak



Southeastern Regional
TRANSMISSION PLANNING

SOCO – SC 600 MW

Transfer Flow Diagram (% of Total Transfer)



SOCO – SC 600 MW

Transmission System Impacts – *SERTP*

- **Transmission System Impacts Identified:**
  - None Identified

- **Potential Transmission Enhancements Identified:**
  - None Identified

SERTP Total ($2022) = $0

SOCO – SC 600 MW

Transmission System Impacts – *SERTP*

Table 6: Transmission System Impacts - SERTP

Balancing Authority	Planning Level Cost Estimate
Associated Electric Cooperative (AECI)	$0
Duke Carolinas (DEC)	$0
Duke Progress East (DEPE)	$0
Duke Progress West (DEPW)	$0
Louisville Gas & Electric and Kentucky Utilities (LG&E/KU)	$0
PowerSouth (PS)	$0
Southern (SBAA)	$0
Tennessee Valley Authority (TVA)	$0
SERTP TOTAL ($2022)	**$0**

Economic Planning Studies

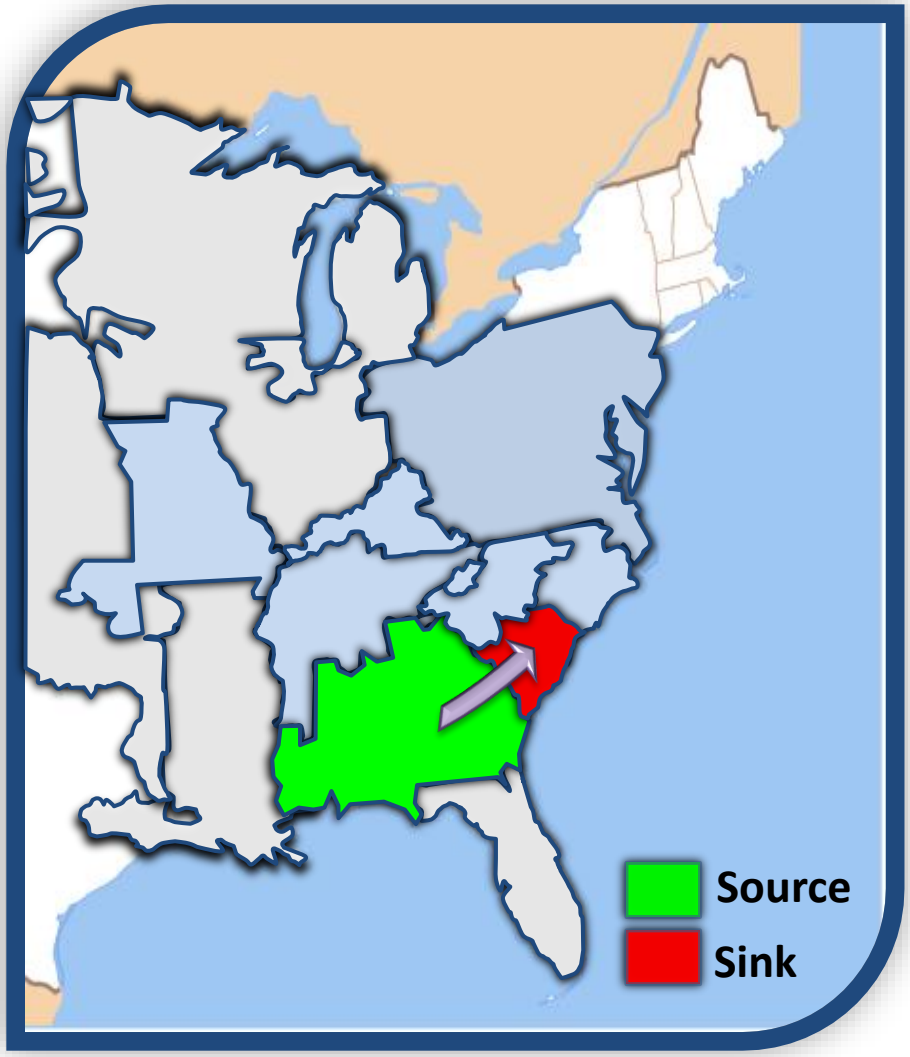
Economic Planning Studies – Preliminary Results

SOCO to SC – 500MW

SOCO – SC 500 MW

Study Assumptions

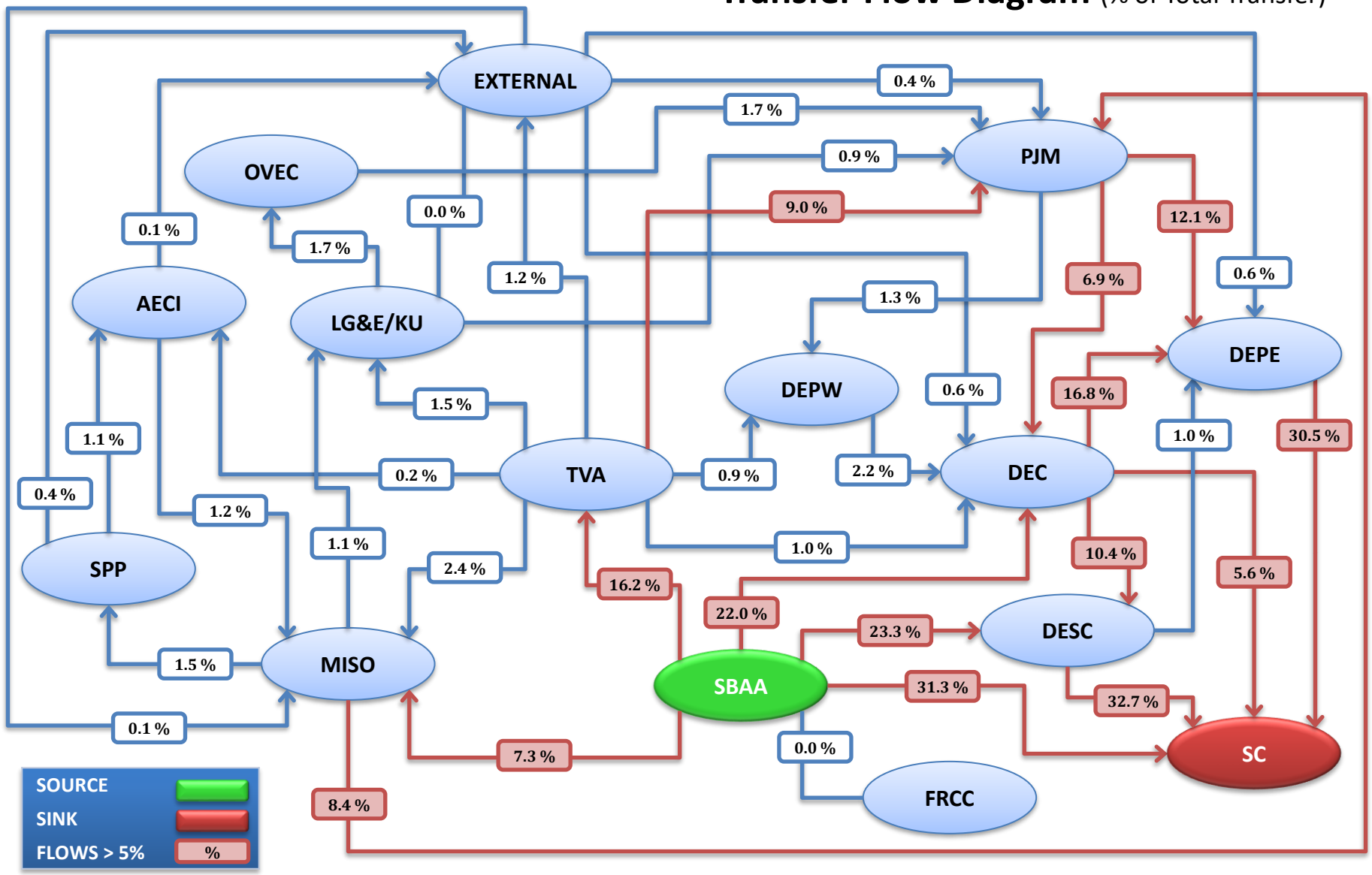
- **Source:** Generation Scale within SOCO
- **Sink:** Generation Scale with SC
- **Transfer Type:** Generation to Generation
- **Year:** 2024
- **Load Level:** Summer Peak



Southeastern Regional
TRANSMISSION PLANNING

SOCO – SC 500 MW

Transfer Flow Diagram (% of Total Transfer)



SOCO – SC 500 MW

Transmission System Impacts – *SERTP*

- **Transmission System Impacts Identified:**
  - Southern Company

- **Potential Transmission Enhancements Identified:**
  - Southern Company

SERTP Total ($2022) = $39.2 Million

SOCO – SC 500 MW

Transmission System Impacts – *SERTP*

Table 6: Transmission System Impacts - SERTP

Balancing Authority	Planning Level Cost Estimate
Associated Electric Cooperative (AECI)	$0
Duke Carolinas (DEC)	$0
Duke Progress East (DEPE)	$0
Duke Progress West (DEPW)	$0
Louisville Gas & Electric and Kentucky Utilities (LG&E/KU)	$0
PowerSouth (PS)	$0
Southern (SBAA)	$39.2 Million
Tennessee Valley Authority (TVA)	$0
SERTP TOTAL ($2022)	**$39.2 Million**

SOCO – SC 500 MW

Significant Constraints Identified – *SOCO*

Table 1: Significant Constraints - SOCO

Potential Enhancement	Limiting Element	Rating (MVA)	Thermal Loadings (%)	
			Without Request	With Request
P1	Hatch – Hatch S.S. 2 230kV T.L.	509	<90	108.2
P1	Hatch S.S. 2 – Vidalia 230kV T.L.	509	<90	107.0
-	Etowah – Reavis Mountain 115kV T.L	124	90.2	98.1

SOCO – SC 500 MW

Potential Enhancements Identified – *SOCO*

Table 2: Potential Enhancements - SOCO

Item	Potential Enhancement	Planning Level Cost Estimate
P1	**Hatch – Vidalia 230kV T.L.** • Rebuild 23.1 miles of 100C 1033.5 ACSR 230kV transmission line on the Hatch – Vidalia 230kV T.L.	**$39.2 Million**
SOCO TOTAL ($2022)		**$ 39.2 Million**(1)

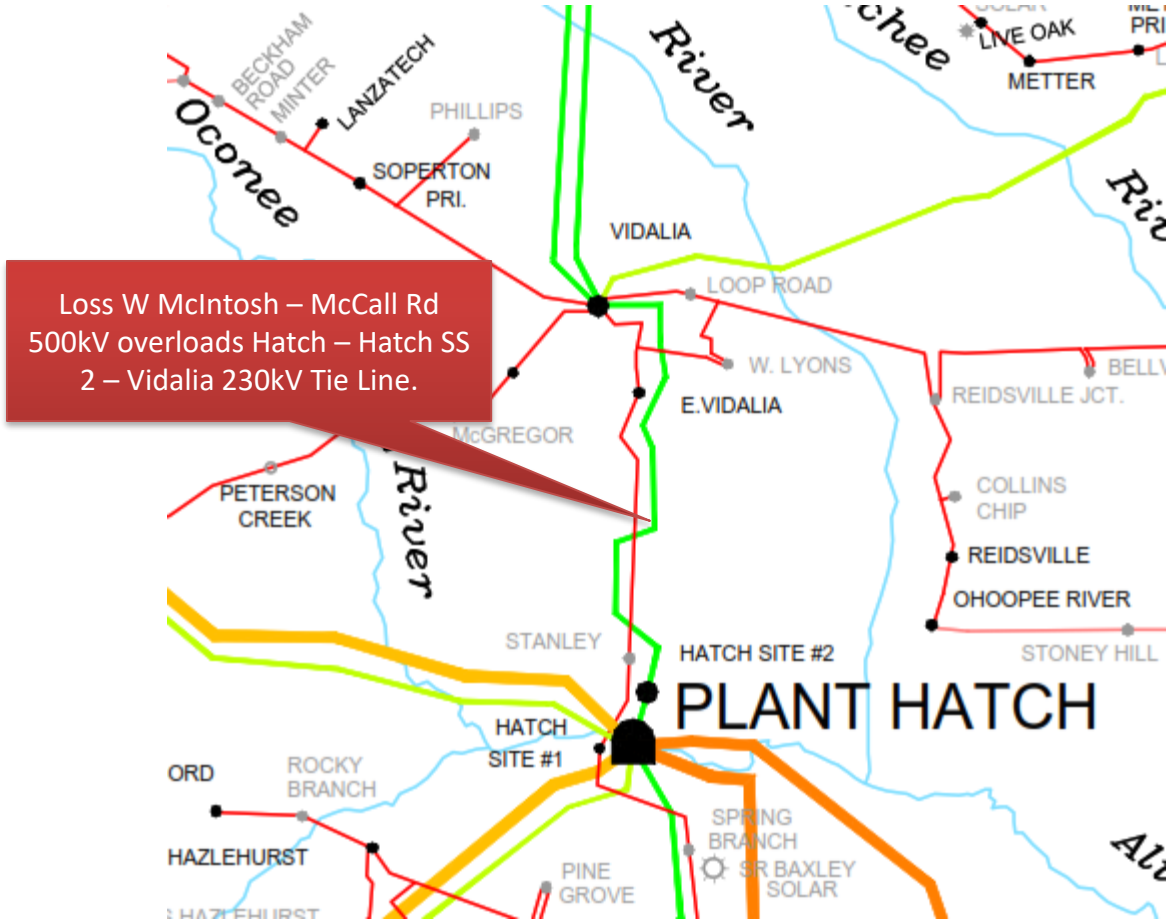
(1) Total planning level cost estimate does not include the cost of projects that are included in SERTP Sponsors' expansion plans and are scheduled to be completed by June 1st of the study year. The studied transfer depends on these projects being in-service, and the cost to support the study transfer could be greater than the total shown above if any of these projects are delayed or cancelled.

SOCO – SC 500 MW

Potential Enhancement Locations – *SOCO*

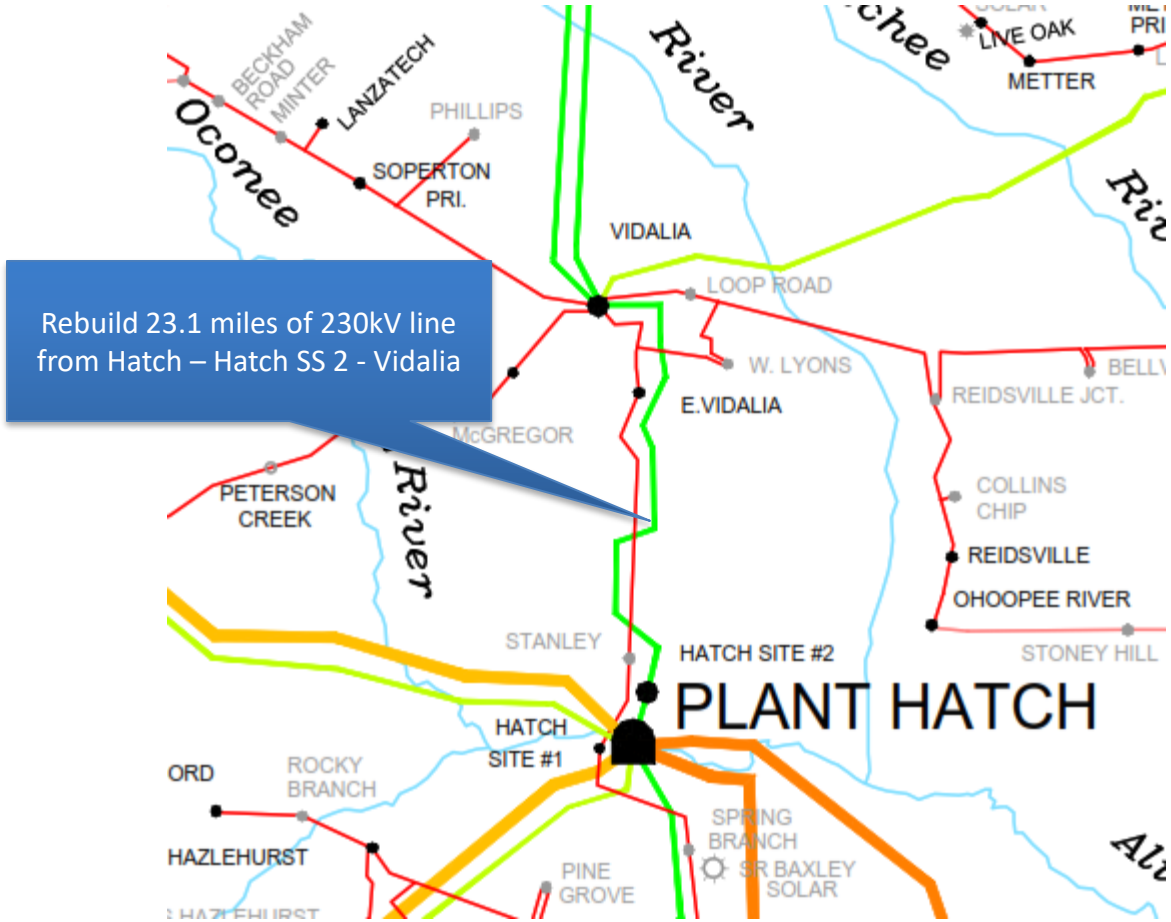
SOCO – SC 500 MW

Significant Constraint (P1) – *SOCO*



SOCO – SC 500 MW

Significant Constraint (P1) – *SOCO*



Economic Planning Studies

Economic Planning Studies – Preliminary Results

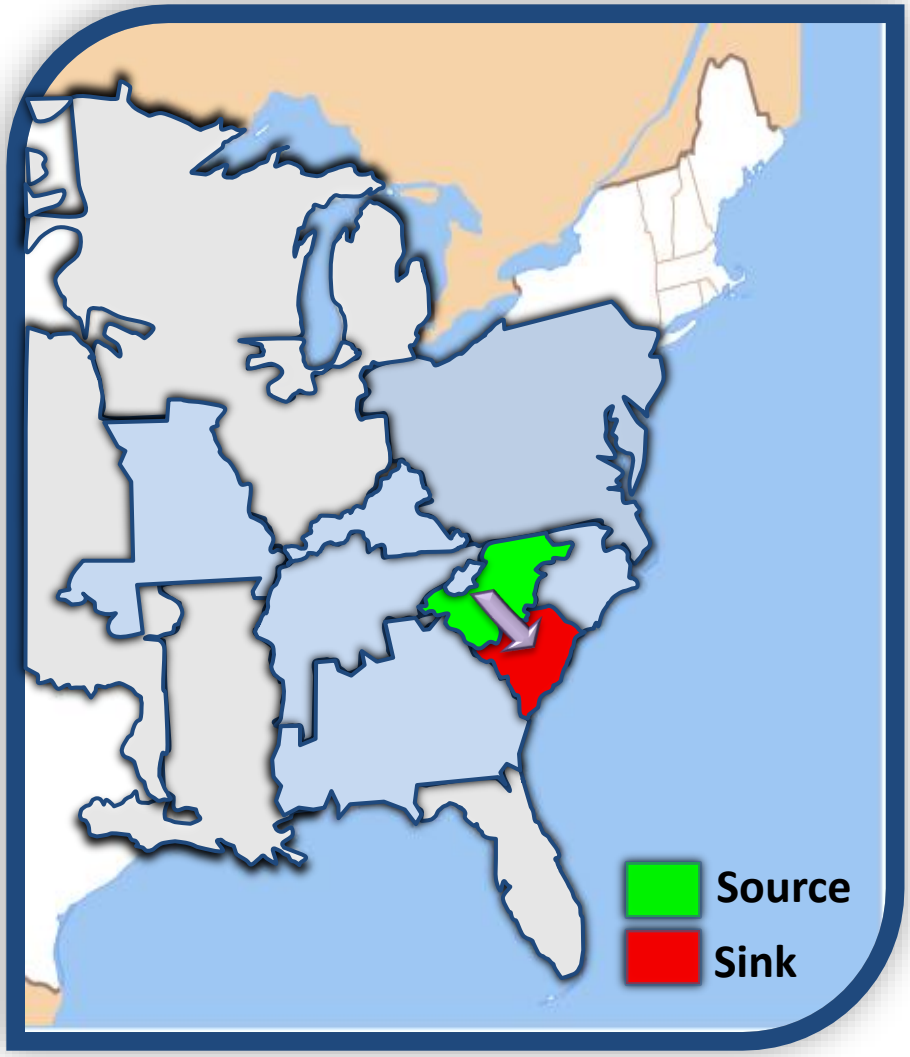
DEC to SC – 600MW

Southeastern Regional TRANSMISSION PLANNING

DEC – SC 600 MW

Study Assumptions

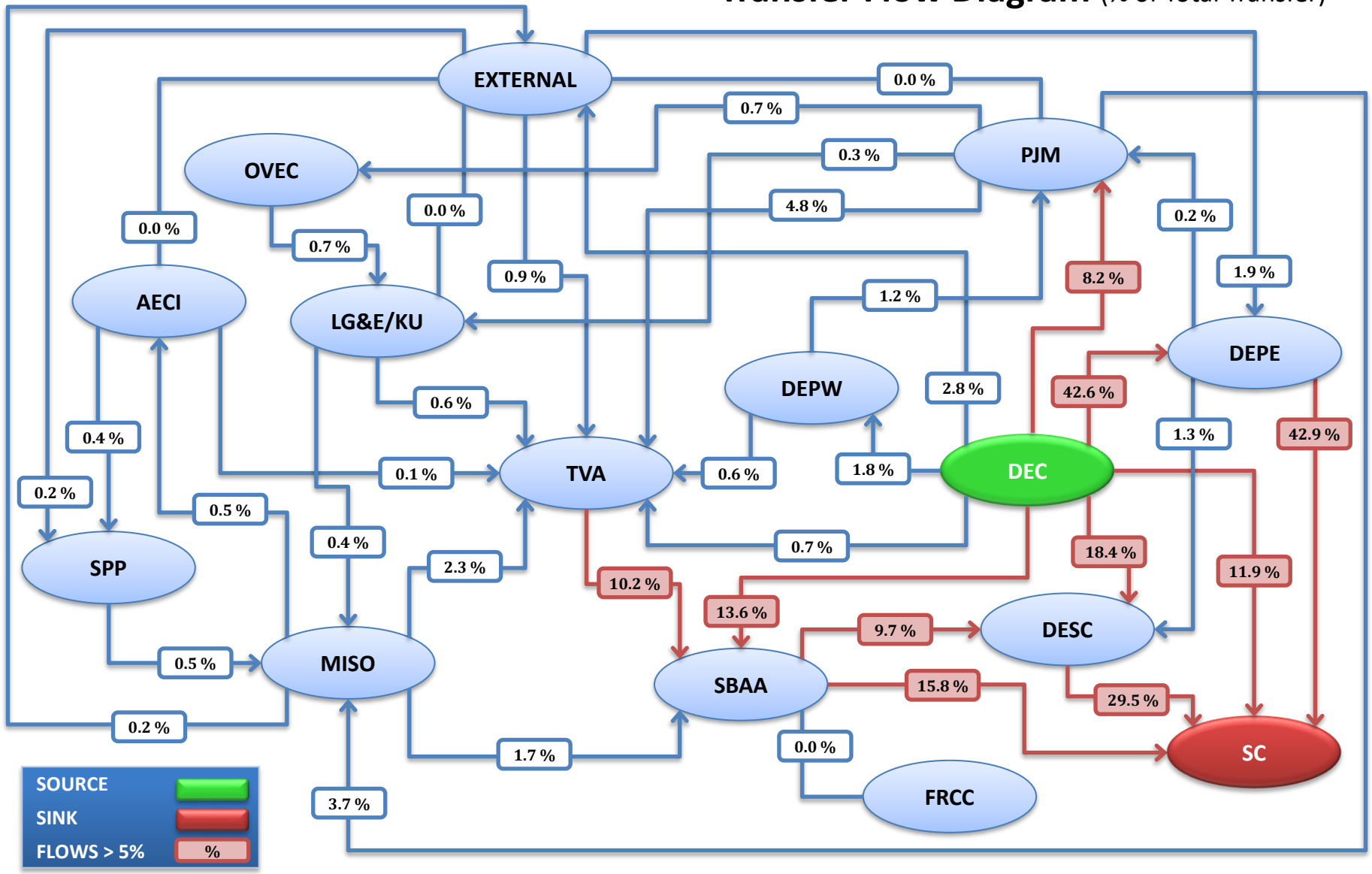
- **Source:** Generation Scale within DEC
- **Sink:** Generation Scale with SC
- **Transfer Type:** Generation to Generation
- **Year:** 2027
- **Load Level:** Winter Peak



Southeastern Regional
TRANSMISSION PLANNING

DEC – SC 600 MW

Transfer Flow Diagram (% of Total Transfer)



DEC – SC 600 MW

Transmission System Impacts – *SERTP*

- **Transmission System Impacts Identified:**
  - None Identified

- **Potential Transmission Enhancements Identified:**
  - None Identified

SERTP Total ($2022) = $0

DEC – SC 600 MW

Transmission System Impacts – *SERTP*

Table 6: Transmission System Impacts - SERTP

Balancing Authority	Planning Level Cost Estimate
Associated Electric Cooperative (AECI)	$0
Duke Carolinas (DEC)	$0
Duke Progress East (DEPE)	$0
Duke Progress West (DEPW)	$0
Louisville Gas & Electric and Kentucky Utilities (LG&E/KU)	$0
PowerSouth (PS)	$0
Southern (SBAA)	$0
Tennessee Valley Authority (TVA)	$0
SERTP TOTAL ($2022)	**$0**

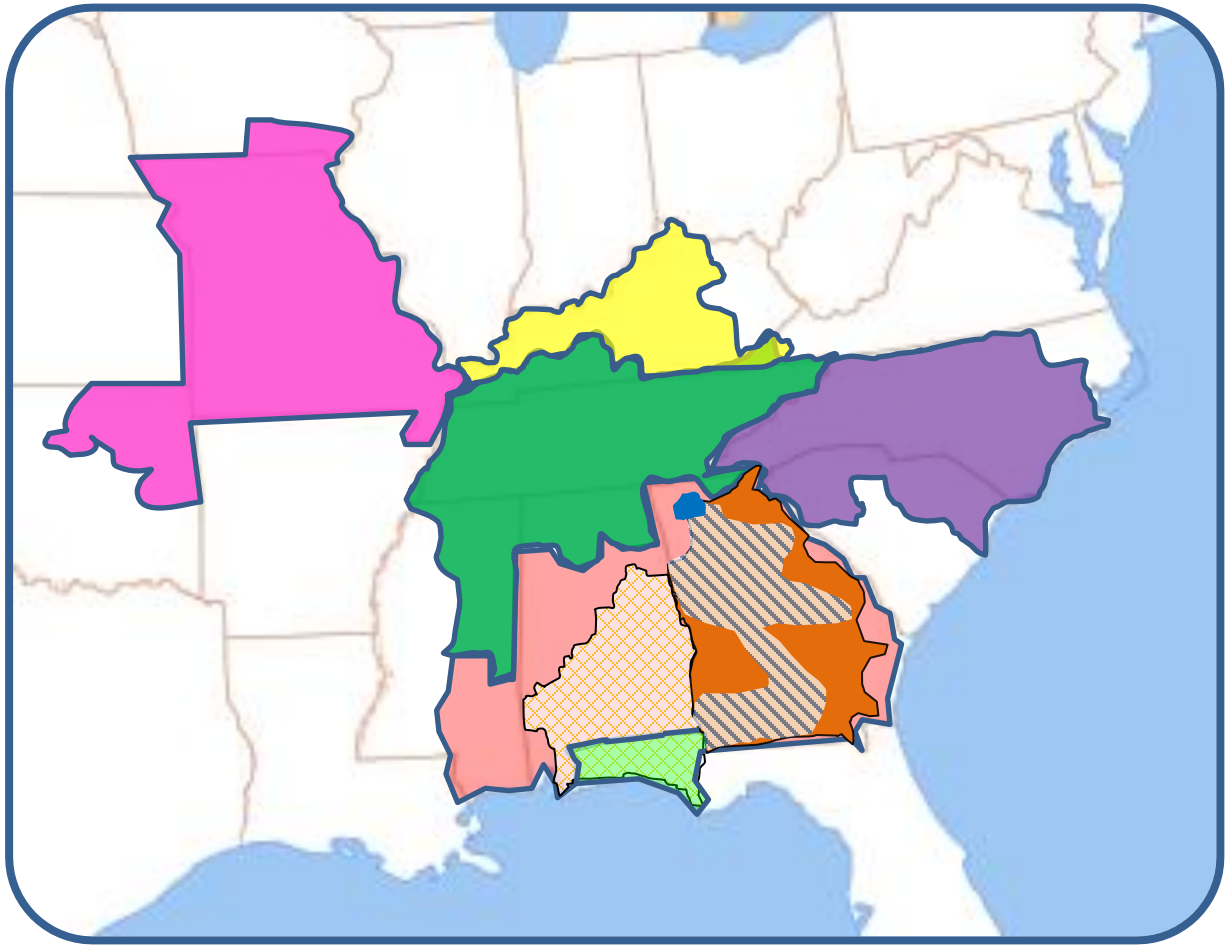
SERTP

Regional Modeling Assumptions

SERTP

Regional Transmission Plan

Southeastern Regional Transmission Planning (SERTP)



SERTP

- Associated Electric Cooperative Inc.
- Dalton Utilities
- Duke Energy
- Georgia Transmission
- Gulf Power*
- LG&E KU
- MEAG Power
- PowerSouth Energy Cooperative
- Southern Company
- TVA

*Gulf Power is seeking to move to FRSS planning region in 2023 following the merger with FP&L

Southeastern Regional Transmission Planning (SERTP)

Balancing Authority Area:

AECI

Duke Carolinas

Duke Progress

LG&E/KU

Southern

TVA

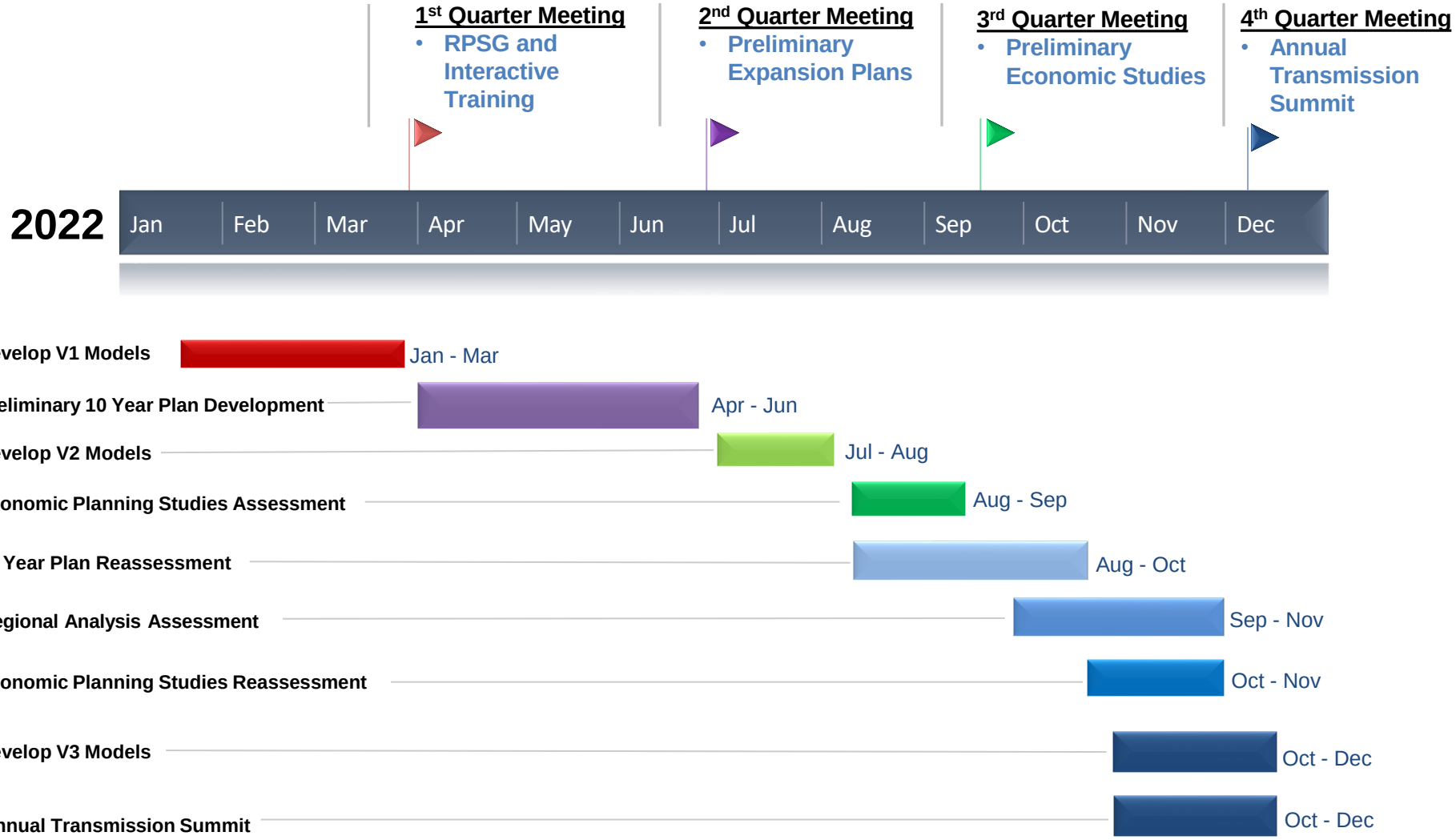
SERTP

Regional Transmission Expansion Plan Process

Southeastern Regional TRANSMISSION PLANNING

2022 SERTP

10 Year SERTP Regional Transmission Expansion Plan Process

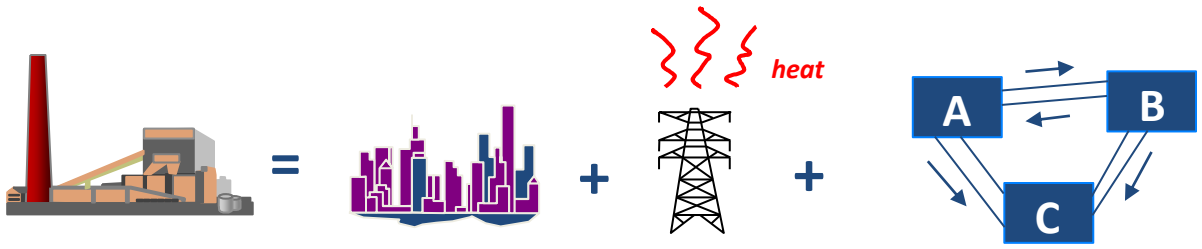


SERTP

Regional Model Assumptions

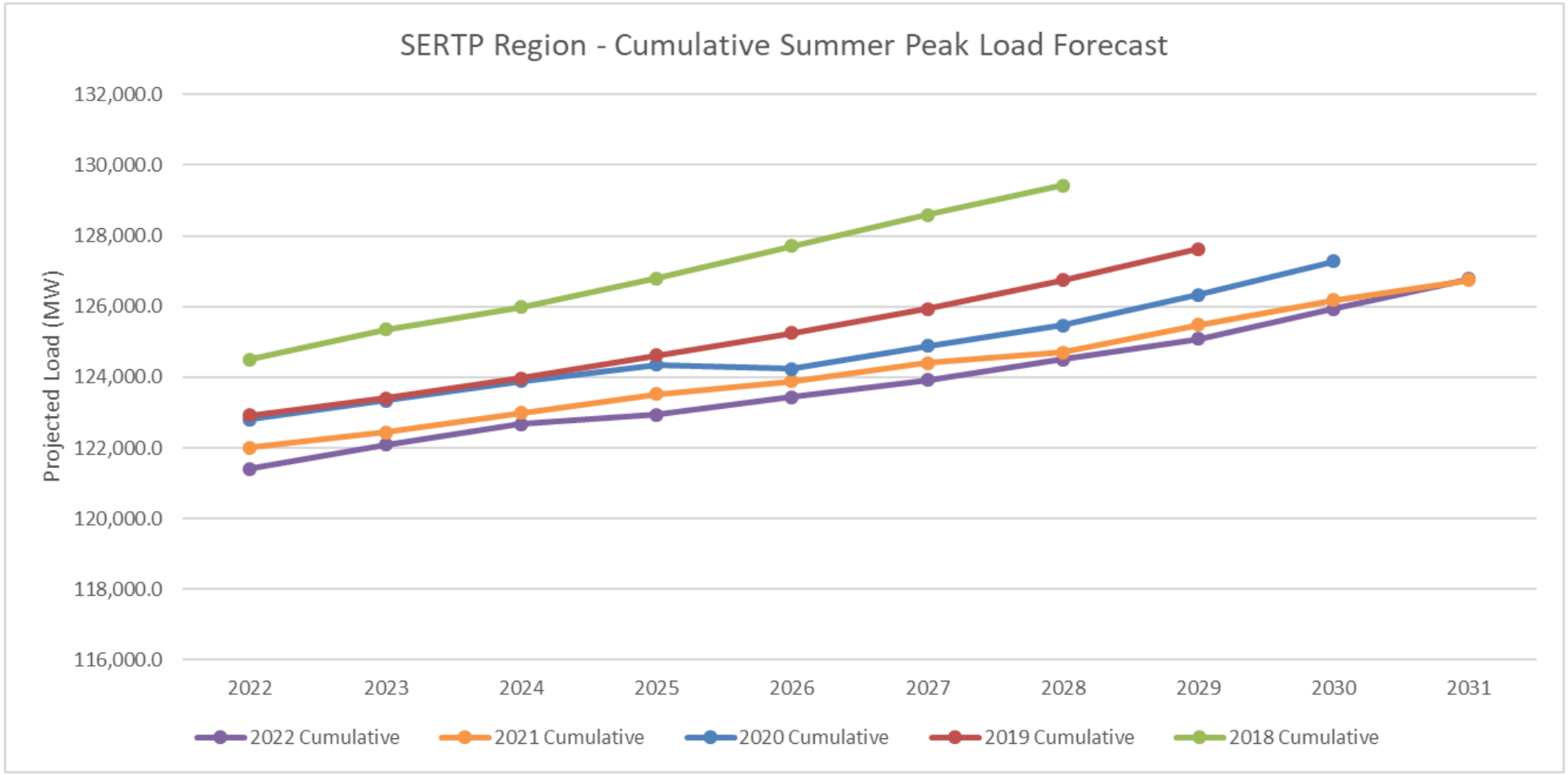
Regional Model Assumptions

Generation = Load + Losses (Topology) + Net Interchange



- Projected load for each year and season
- Losses produced in serving that load
  - Transmission Lines & Transformers
    - 10 Year Transmission Expansion Plan
- Area Interchange of long-term firm commitments across the interface
- Generation needed to balance all of the above

SERTP Cumulative Summer Peak Load Forecast



SERTP

Regional Transmission Expansion Plans

AECI Balancing Authority Area

AECI Balancing Authority Area

Generation Assumptions

* AECI has no generation assumptions expected to change throughout the ten year planning horizon for the 2022 SERTP Process.

AECI Balancing Authority Area

AECI Balancing Authority Area

SERTP Regional Transmission Expansion Plan

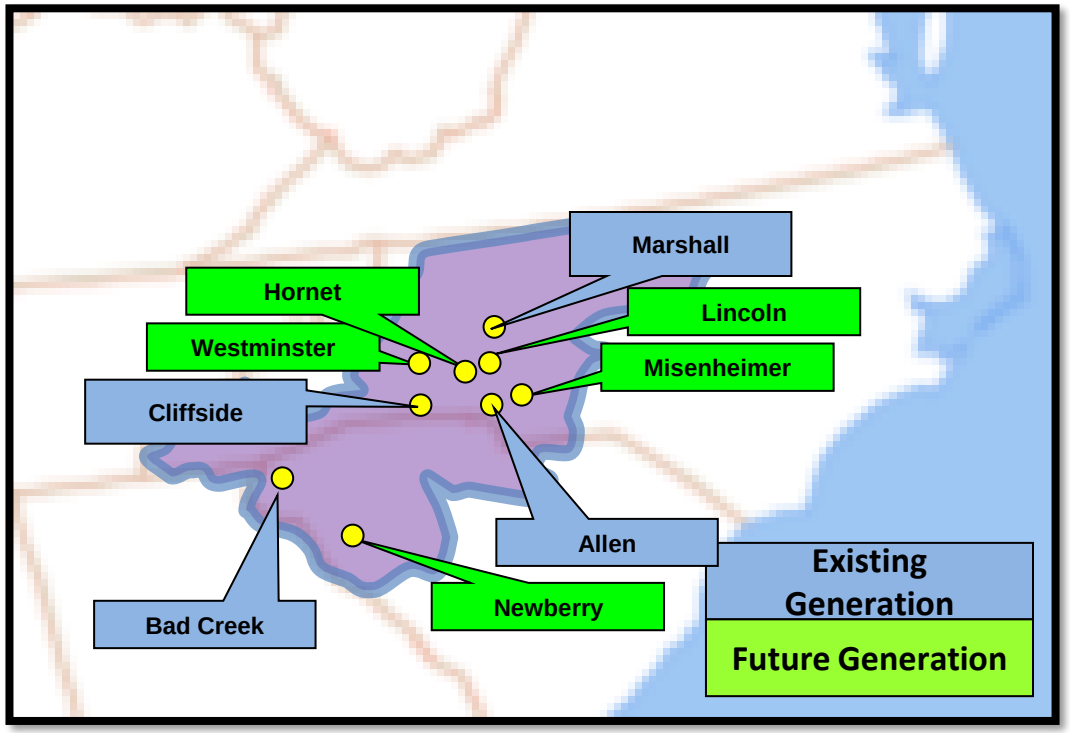
DUKE ENERGY CAROLINAS Balancing Authority Area

Generation Assumptions

DEC Balancing Authority Area

DUKE ENERGY CAROLINAS – Generation Assumptions

The following diagram depicts the location of generation assumptions <u>that change</u> throughout the ten year planning horizon for the 2022 SERTP Process.



DUKE CAROLINAS – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2022 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Allen 1	COAL	158	0	--	--	--	--	--	--	--	--
Allen 5	COAL	253	0	--	--	--	--	--	--	--	--
Cliffside 5	COAL	574	574	574	0	--	--	--	--	--	--
Marshall 1	COAL	388	388	388	388	388	388	0	--	--	--
Marshall 2	COAL	392	392	392	392	392	392	0	--	--	--
Misenheimer	PV	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4
Westminster	PV	75	75	75	75	75	75	75	75	75	75
Hornet	PV	--	74	74	74	74	74	74	74	74	74
Newberry	PV	--	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
Lincoln 17	GAS	--	402	402	402	402	402	402	402	402	402
Bad Creek 3	Pumped Storage	420	420	420	420	420	420	420	420	420	420
Bad Creek 4	Pumped Storage	340	420	420	420	420	420	420	420	420	420

DEC Balancing Authority Area

DUKE ENERGY CAROLINAS – Generation Assumptions (Point-to-Point)

The following table depicts generation assumptions based upon expected long-term firm point-to-point commitments. The years shown represent Summer Peak conditions.

SITE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Cleveland	195	195	195	195	196	196	196	196	196	196
Broad River	875	875	875	875	875	875	875	875	875	875
Catawba	407	407	407	407	407	407	407	407	407	407
Rowan	460	441	428	373	376	370	180	180	180	180
Kings Mountain	32	92	92	92	92	92	92	92	92	92

DEC Balancing Authority Area

DUKE ENERGY CAROLINAS Balancing Authority Area

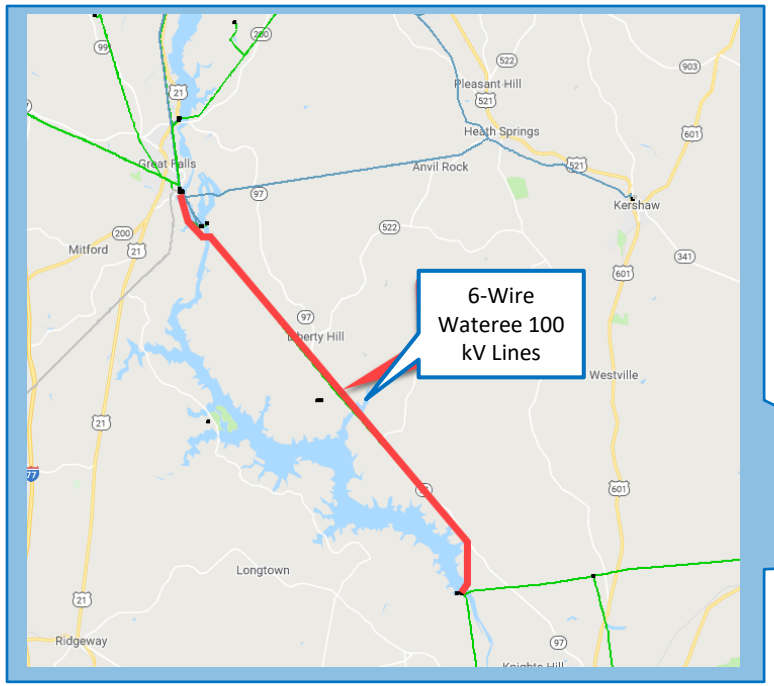
Preliminary Transmission Expansion Plan

DEC Balancing Authority Area

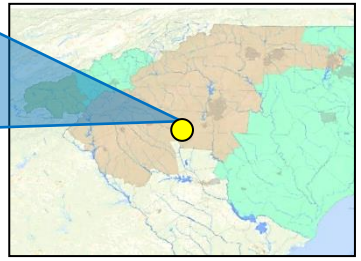
DUKE ENERGY CAROLINAS - 1

Wateree Switching Station – Great Falls Switching Station 100 kV Line

- **2023**



- **DESCRIPTION:**
  - 6-Wire the double circuit Wateree Line
- **SUPPORTING STATEMENT:**
  - Wateree Switching Station – Great Falls Switching Station 100 kV Line can overload under contingency. Project done in conjunction with DEP's Wateree Transformer replacement project

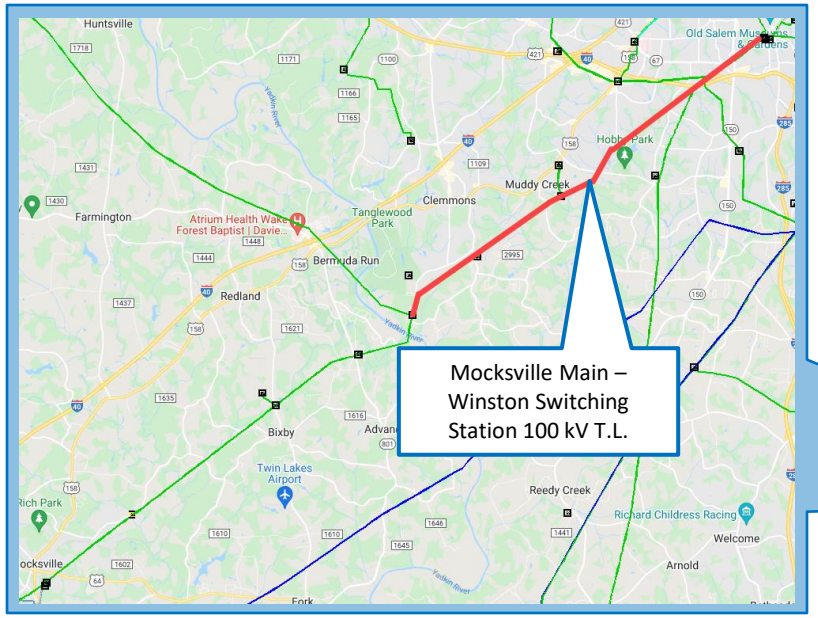


DEC Balancing Authority Area

DUKE ENERGY CAROLINAS - 2

MOCKSVILLE MAIN – WINSTON SWITCHING STATION 100 KV TRANSMISSION LINE

- **2025**

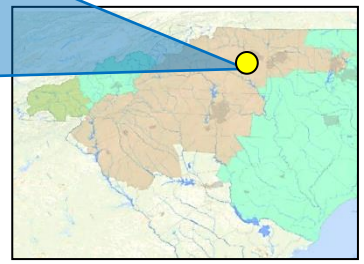


DESCRIPTION:

– Rebuild 10 miles of the Mocksville Main – Winston Switching Station 100 kV line with 1295 ACSR rated at 120°C.

SUPPORTING STATEMENT:

– Mocksville Main – Winston Switching Station 100 kV T.L. can overload under contingency

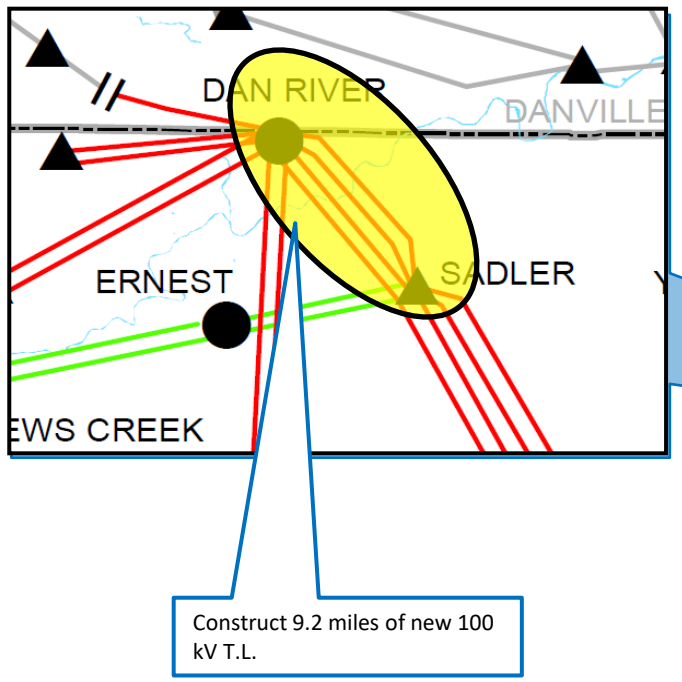


DEC Balancing Authority Area

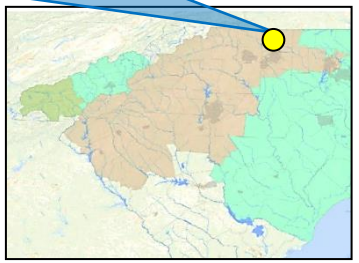
DUKE ENERGY CAROLINAS - 3

SADLER TIE – DAN RIVER 100 KV TRANSMISSION LINE

- **2024**



- **DESCRIPTION:**
  - Construct approximately 9.2 miles of new 100 kV transmission line between Dan River Steam Station and Sadler Tie with 954 AAC at 120°C.
- **SUPPORTING STATEMENT:**
  - Thermal overloads occur around Dan River Steam Station and Dan River Combined Cycle Station under contingency.

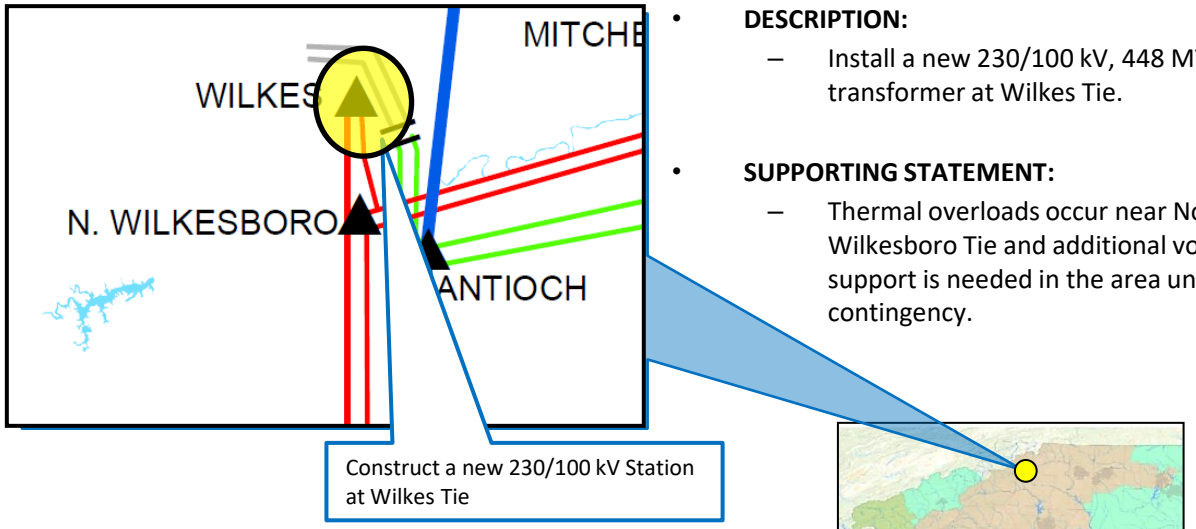


DEC Balancing Authority Area

DUKE ENERGY CAROLINAS - 4

WILKES TIE 230 KV SUBSTATION

- **2024**



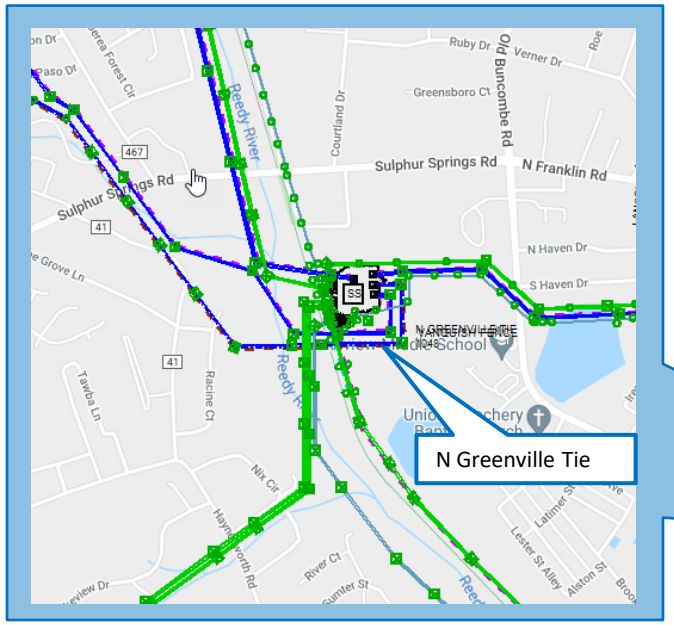
- **DESCRIPTION:**
  - Install a new 230/100 kV, 448 MVA transformer at Wilkes Tie.
- **SUPPORTING STATEMENT:**
  - Thermal overloads occur near North Wilkesboro Tie and additional voltage support is needed in the area under contingency.

DEC Balancing Authority Area

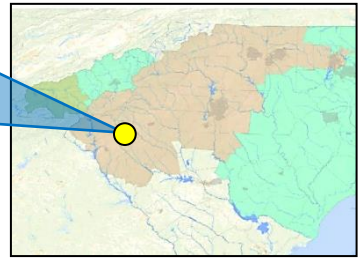
DUKE ENERGY CAROLINAS - 5

NORTH GREENVILLE TIE 230 KV SUBSTATION

- **2025**



- **DESCRIPTION:**
  - Replace Bank 1 with a new 230/100/44 kV, 448 MVA transformer at N Greenville Tie.
- **SUPPORTING STATEMENT:**
  - North Greenville Bank 1 can overload under contingency

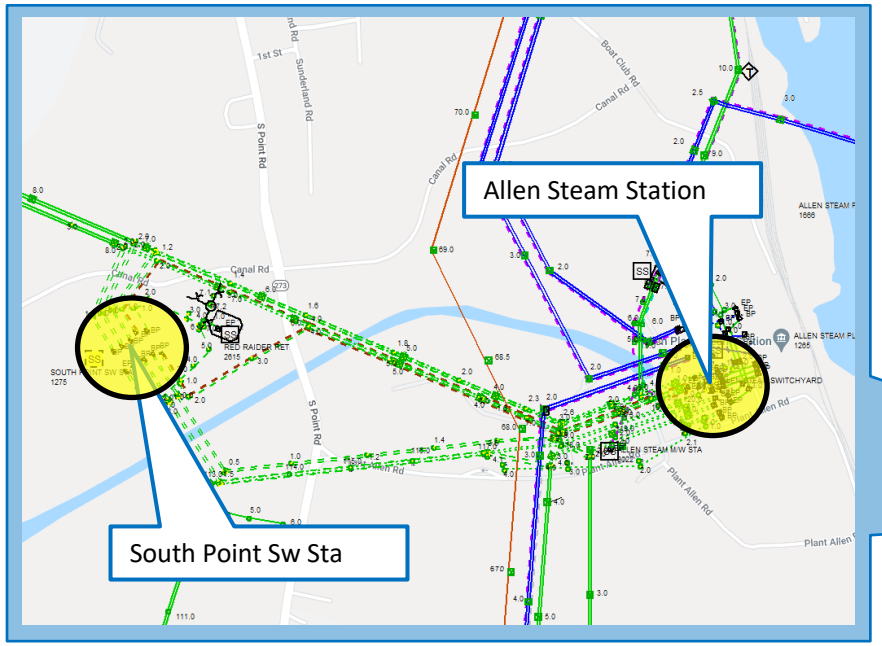


DEC Balancing Authority Area

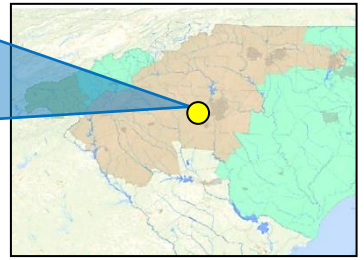
DUKE ENERGY CAROLINAS - 6

ALLEN STEAM STATION AUTOBANK REPLACEMENT / SOUTHPOINT SWITCHING STATION

- **2025**



- **DESCRIPTION:**
  - Replace both 230/100/44 kV autobanks at Allen Steam and construct new Southpoint Switching Station
- **SUPPORTING STATEMENT:**
  - Allen Steam Autobanks can overload under contingency

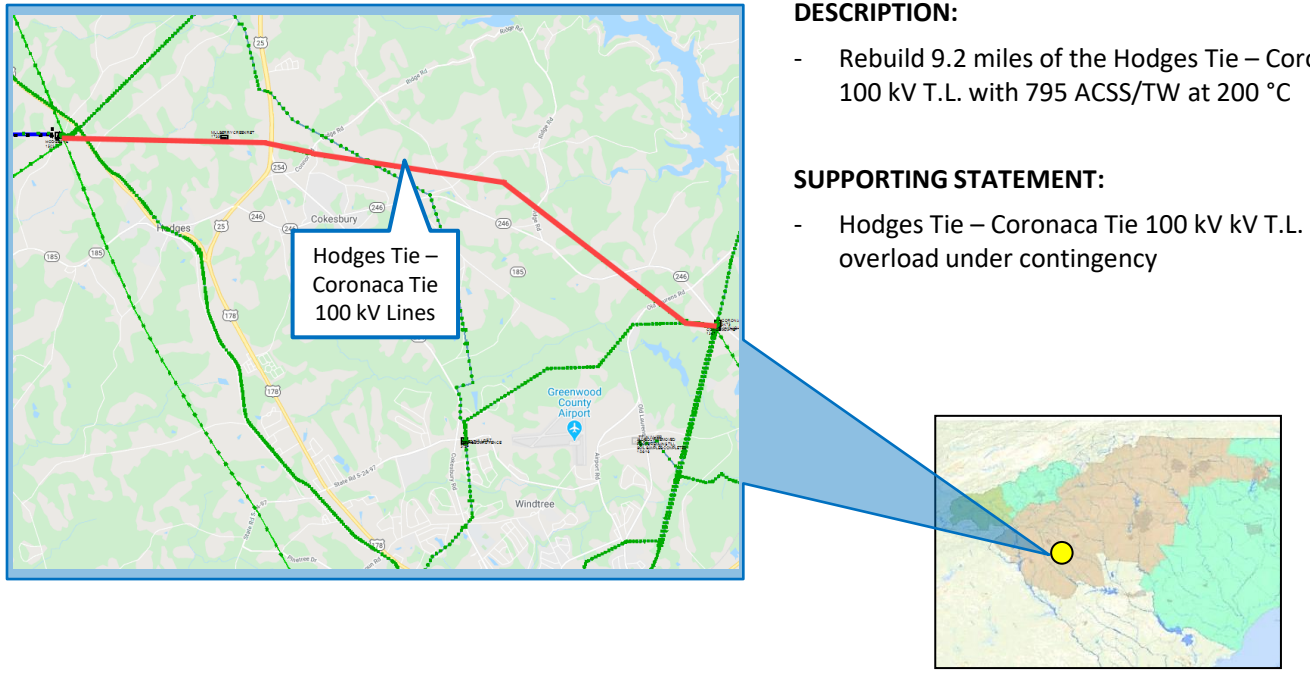


DEC Balancing Authority Area

DUKE ENERGY CAROLINAS - 7

HODGES TIE – CORONACA TIE 100 KV TRANSMISSION LINE

- **2025**



DESCRIPTION:

- Rebuild 9.2 miles of the Hodges Tie – Coronaca Tie 100 kV T.L. with 795 ACSS/TW at 200 °C

SUPPORTING STATEMENT:

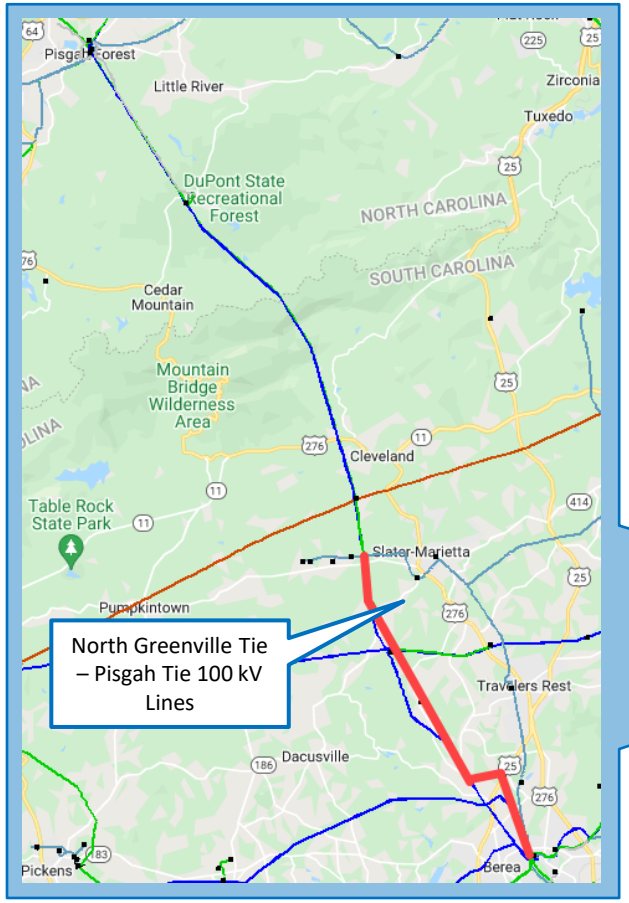
- Hodges Tie – Coronaca Tie 100 kV kV T.L. can overload under contingency

DEC Balancing Authority Area

DUKE ENERGY CAROLINAS - 8

NORTH GREENVILLE TIE - PISGAH TIE 100 KV TRANSMISSION LINE

- **2026**

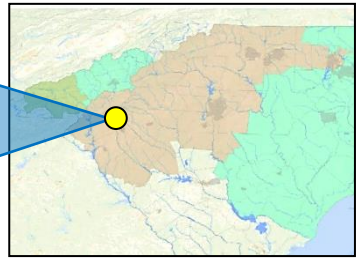


DESCRIPTION:

- Rebuild 11.5 miles of the North Greenville Tie – Pisgah Tie 100 kV T.L. with 1272 ACSR at 120 °C

SUPPORTING STATEMENT:

- North Greenville Tie – Pisgah Tie 100 kV T.L. can overload under contingency

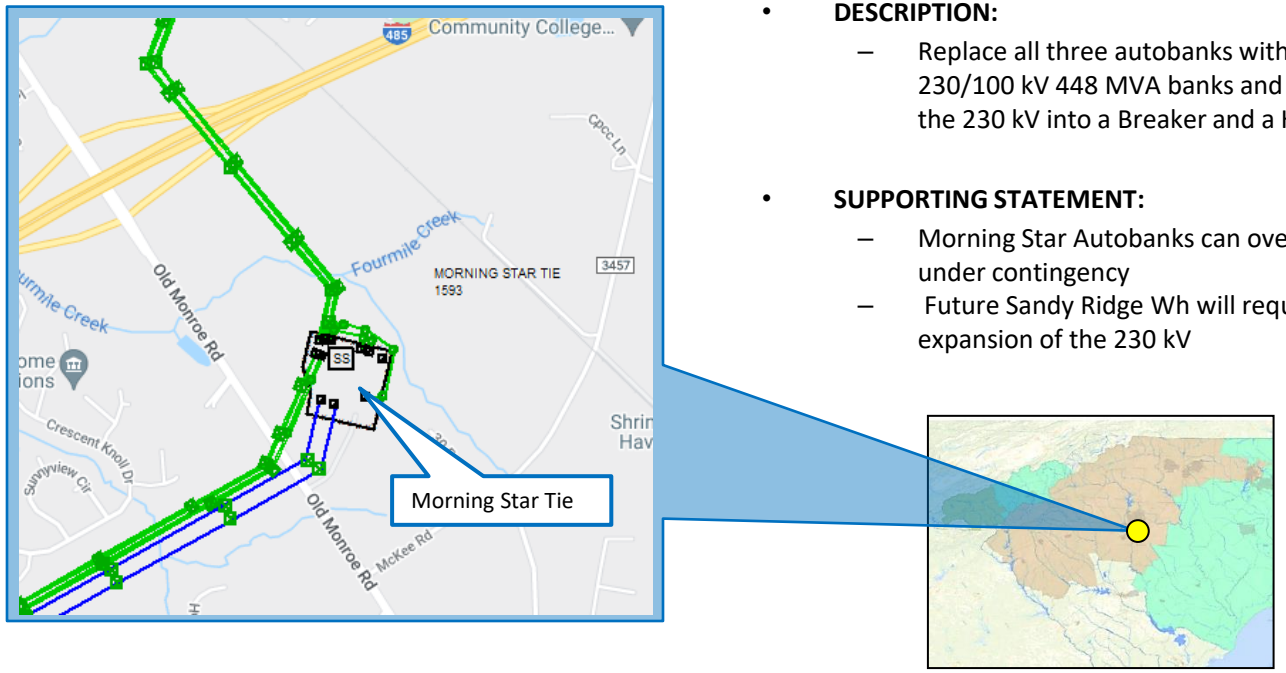


DEC Balancing Authority Area

DUKE ENERGY CAROLINAS - 9

MORNING STAR TIE 230 KV SUBSTATION

- **2028**



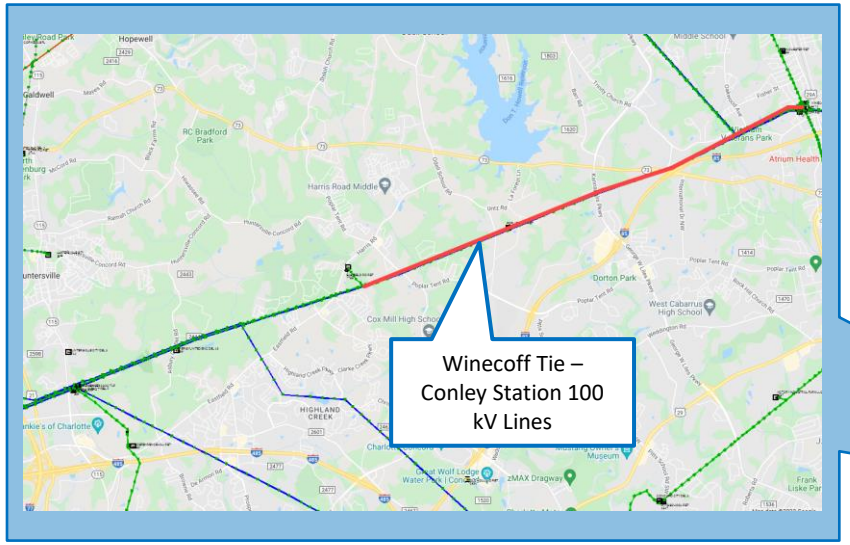
- **DESCRIPTION:**
  - Replace all three autobanks with new 230/100 kV 448 MVA banks and expand the 230 kV into a Breaker and a Half
- **SUPPORTING STATEMENT:**
  - Morning Star Autobanks can overload under contingency
  - Future Sandy Ridge Wh will require expansion of the 230 kV

DEC Balancing Authority Area

DUKE ENERGY CAROLINAS - 10

WINECOFF TIE TO CONLEY SWITCHING STATION 100 KV TRANSMISSION LINE

- **2027**

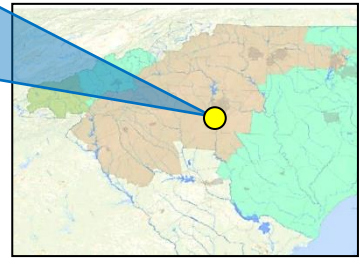


DESCRIPTION:

- Rebuild 7.89 miles of the Winecoff Tie – Conley Switching Station 100 kV T.L. with 1272 ACSR at 120 °C

SUPPORTING STATEMENT:

- Winecoff Tie – Conley Switching Station 100 kV T.L. can overload under contingency

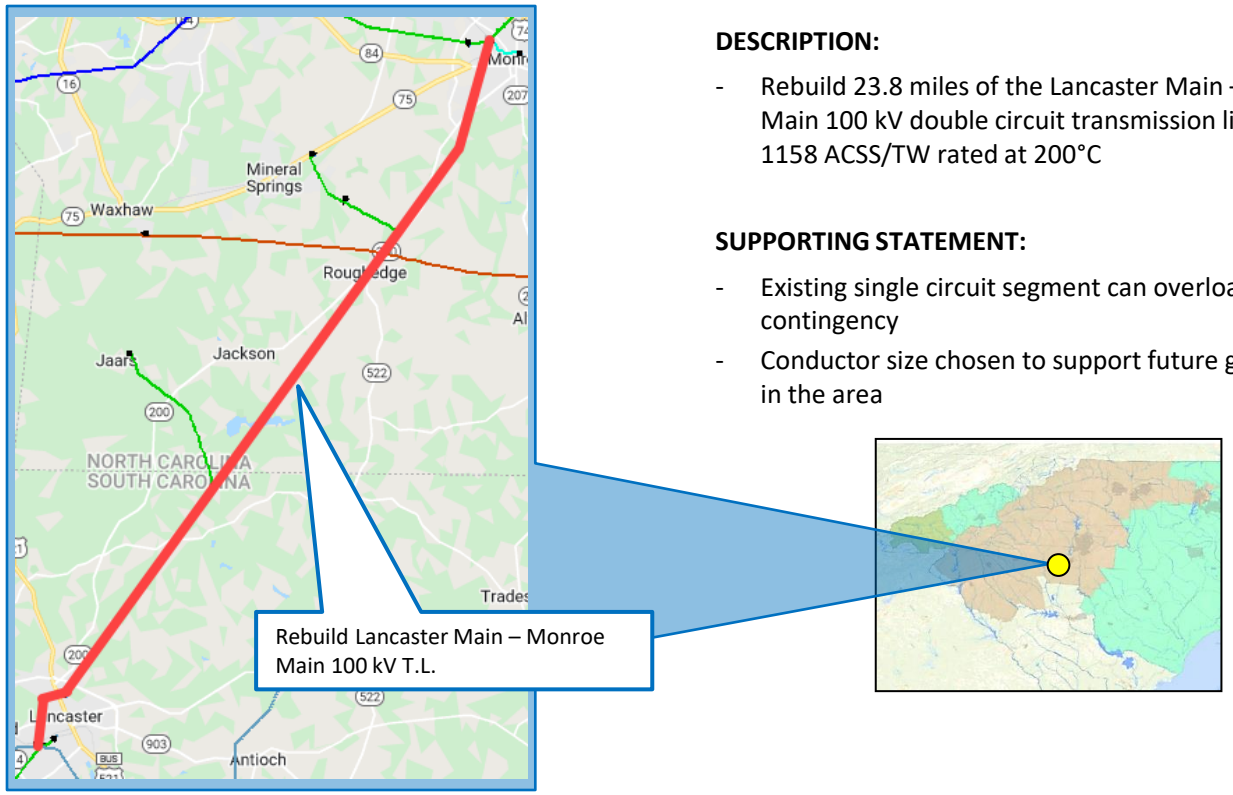


DEC Balancing Authority Area

DUKE ENERGY CAROLINAS - 11

LANCASTER MAIN – MONROE MAIN 100 kV TRANSMISSION LINE

- **2027**



DESCRIPTION:

- Rebuild 23.8 miles of the Lancaster Main – Monroe Main 100 kV double circuit transmission line with 1158 ACSS/TW rated at 200°C

SUPPORTING STATEMENT:

- Existing single circuit segment can overload under contingency
- Conductor size chosen to support future generation in the area

DEC Balancing Authority Area

DUKE ENERGY CAROLINAS - 12

WYLIE SWITCHING STATION – WOODLAWN TIE 100 KV TRANSMISSION LINE

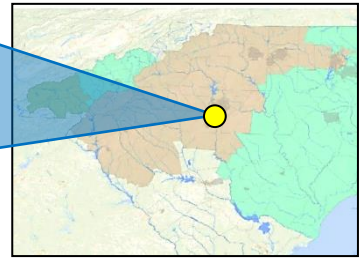
- **2026**

DESCRIPTION:

- Reconductor 10 miles of the Wylie Switching Station – Woodlawn Tie 100 kV T.L. with Bundled 477 ACSR at 120 °C

SUPPORTING STATEMENT:

- Wylie Switching Station - Woodlawn Tie 100 kV T. L. can overload under contingency.

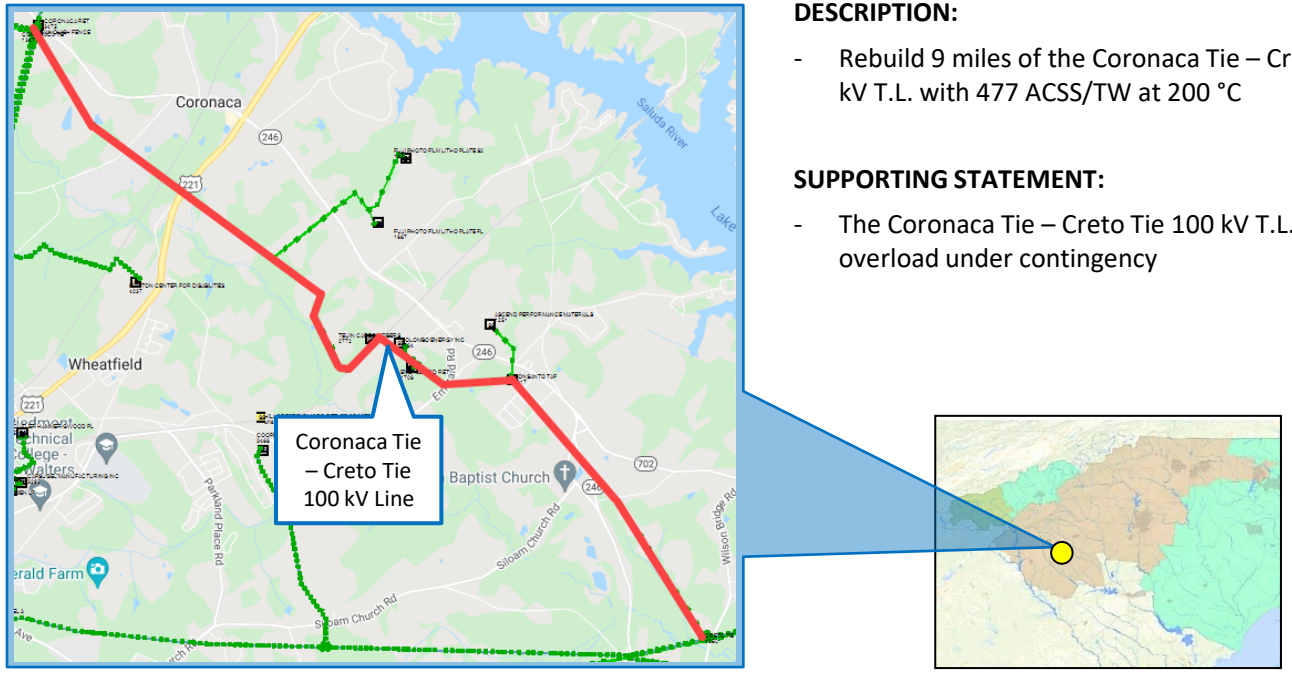


DEC Balancing Authority Area

DUKE ENERGY CAROLINAS - 13

CORONACA TIE – CRETO TIE 100 KV TRANSMISSION LINE

- **2026**



DESCRIPTION:

- Rebuild 9 miles of the Coronaca Tie – Creto Tie 100 kV T.L. with 477 ACSS/TW at 200 °C

SUPPORTING STATEMENT:

- The Coronaca Tie – Creto Tie 100 kV T.L. can overload under contingency

DEC Balancing Authority Area

DUKE ENERGY CAROLINAS - 14

NEWPORT TIE – MORNING STAR TIE 230 KV TRANSMISSION LINE

- **2029**

DESCRIPTION:

- Add a second circuit to the existing Newport Tie – Morning Star Tie 230 kV Transmission Line

SUPPORTING STATEMENT:

- A number of contingencies on the Duke Energy Carolinas 230 kV transmission system can cause thermal overloads on the Newport Tie – Morning Star Tie 230 kV T.L.

DEC Balancing Authority Area

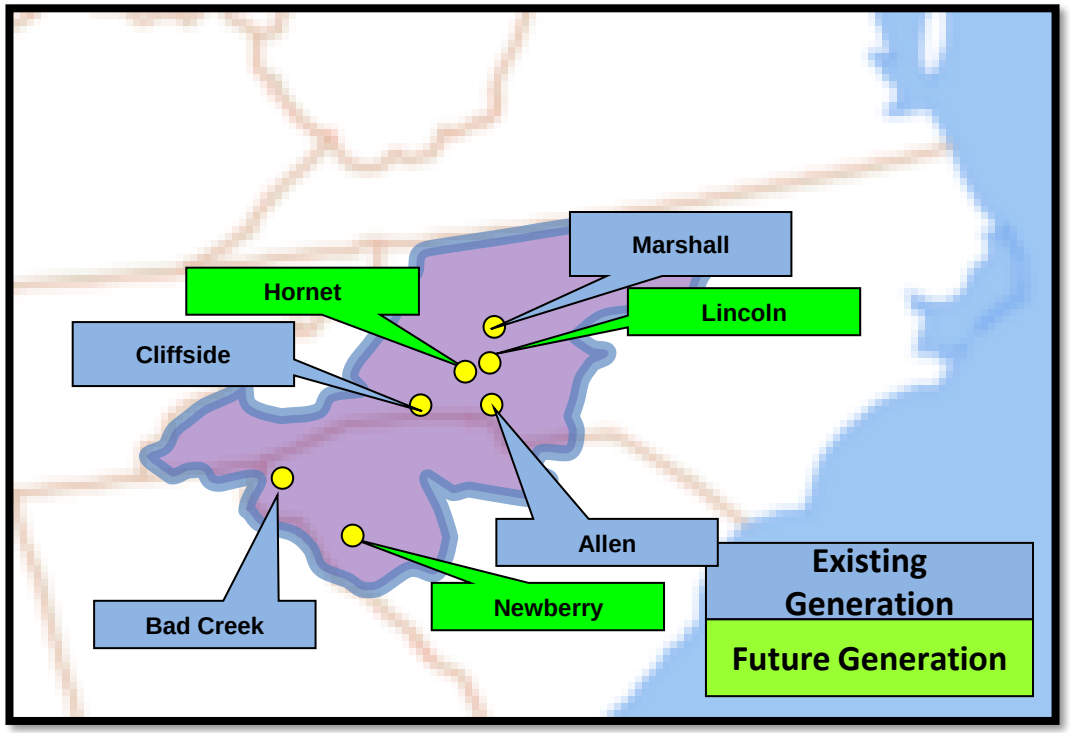
DEC Balancing Authority Area

Upcoming 2023 Generation Assumptions

DEC Balancing Authority Area

DEC – Generation Assumptions

The following diagram depicts the location of generation assumptions <u>that change</u> throughout the ten year planning horizon for the 2023 SERTP Process.



DEC Balancing Authority Area

DEC – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2023 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Allen 1	COAL	0	--	--	--	--	--	--	--	--	--
Allen 5	COAL	0	--	--	--	--	--	--	--	--	--
Cliffside 5	COAL	574	574	0	--	--	--	--	--	--	--
Marshall 1	COAL	388	388	388	388	388	0	--	--	--	--
Marshall 2	COAL	392	392	392	392	392	0	--	--	--	--
Hornet	PV	74	74	74	74	74	74	74	74	74	74
Newberry	PV	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
Lincoln 17	GAS	402	402	402	402	402	402	402	402	402	402
Bad Creek 4	Pumped Storage	420	420	420	420	420	420	420	420	420	420

DEC Balancing Authority Area

DUKE ENERGY CAROLINAS – Generation Assumptions (Point-to-Point)

The following table depicts generation assumptions based upon expected long-term firm point-to-point commitments for the SERTP 2023 Planning Process. The years shown represent Summer Peak conditions.

SITE	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Cleveland	195	195	195	195	196	0	--	--	--	--
Broad River	875	875	875	875	875	875	875	875	875	875
Catawba	407	407	407	407	407	407	407	407	407	407
Rowan	460	441	428	373	376	370	180	180	180	180
Kings Mountain	32	92	92	92	92	92	92	92	92	92

DEP East/West Balancing Authority Area

DUKE ENERGY PROGRESS EAST/WEST

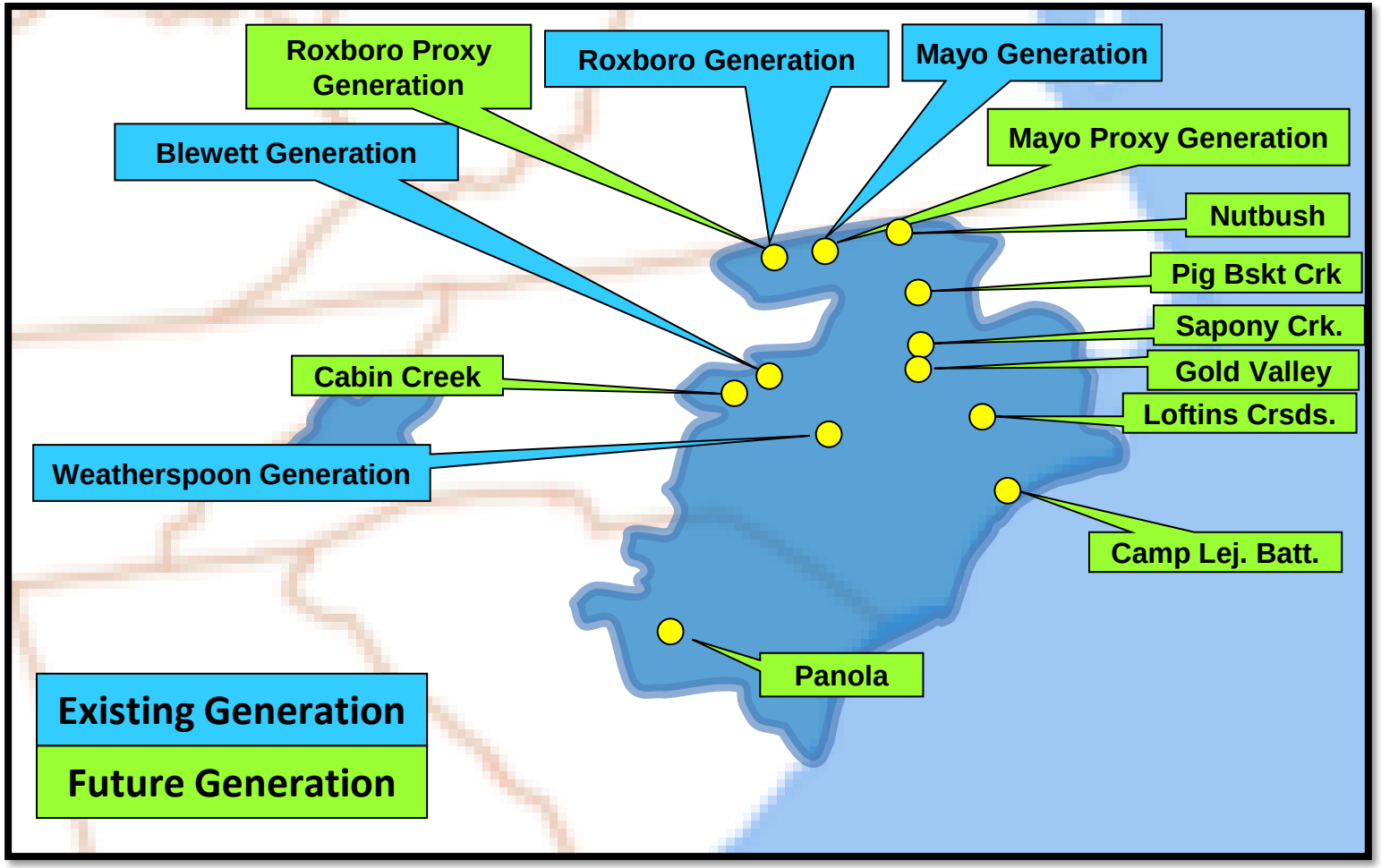
Balancing Authority Areas

Generation Assumptions

DEP East/West Balancing Authority Area

DUKE ENERGY PROGRESS – Generation Assumptions

The following diagram depicts the location of generation assumptions <u>that change</u> throughout the ten year planning horizon for the 2022 SERTP Process.



DEP East/West Balancing Authority Area

DUKE ENERGY PROGRESS – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2022 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
BLEWETT IC #1	OIL	13	13	0	--	--	--	--	--	--	--
BLEWETT IC #2	OIL	13	13	0	--	--	--	--	--	--	--
BLEWETT IC #3	OIL	13	13	0	--	--	--	--	--	--	--
BLEWETT IC #4	OIL	13	13	0	--	--	--	--	--	--	--
WEATHERSPOON IC #1	GAS/OIL	32	32	0	--	--	--	--	--	--	--
WEATHERSPOON IC #2	GAS/OIL	32	32	0	--	--	--	--	--	--	--
WEATHERSPOON IC #3	GAS/OIL	33	33	0	--	--	--	--	--	--	--
WEATHERSPOON IC #4	GAS/OIL	31	31	0	--	--	--	--	--	--	--

DEP East/West Balancing Authority Area

DUKE ENERGY PROGRESS – Generation Assumptions (Cont.)

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2022 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
ROXBORO #1 COAL	COAL	379	379	379	379	379	379	0	--	--	--
ROXBORO #2 COAL	COAL	665	665	665	665	665	665	0	--	--	--
ROXBORO #3 COAL	COAL	691	691	691	691	691	0	--	--	--	--
ROXBORO #4 COAL	COAL	698	698	698	698	698	0	--	--	--	--
MAYO COAL	COAL	727	727	727	727	727	727	0	--	--	--
ROXBORO PROXY #1	--	--	--	--	--	--	1350	1350	1350	1350	1350
ROXBORO PROXY #2	--	--	--	--	--	--	--	1350	1350	1350	1350
MAYO PROXY	--	--	--	--	--	--	--	602	602	602	602

DEP East/West Balancing Authority Area

DUKE ENERGY PROGRESS – Generation Assumptions (Cont.)

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2022 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
GOLD VALLEY PV	PV	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
CABIN CREEK PV	PV	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2
CAMP LEJEUNE BATTERY	BATTERY	11	11	11	11	11	11	11	11	11	11
SAPONY CREEK PV	PV	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4
NUTBUSH PV	PV	35	35	35	35	35	35	35	35	35	35
LOFTINS XROADS PV	PV	75	75	75	75	75	75	75	75	75	75
PIG BSKT CRK PV	PV	80	80	80	80	80	80	80	80	80	80
PANOLA PV	PV	--	67	67	67	67	67	67	67	67	67

DEP East/West Balancing Authority Area

DUKE ENERGY PROGRESS – Generation Assumptions (Point-to-Point)

The following table depicts generation assumptions based upon expected long-term firm point-to-point commitments. The years shown represent Summer Peak conditions.

SITE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
HAMLET #1	55	55	55	55	55	55	55	55	55	55
HAMLET #2	55	55	55	55	55	55	55	55	55	55
HAMLET #3	55	55	55	55	55	55	55	55	55	55

DEP East/West Balancing Authority Area

DUKE ENERGY PROGRESS EAST

Balancing Authority Area

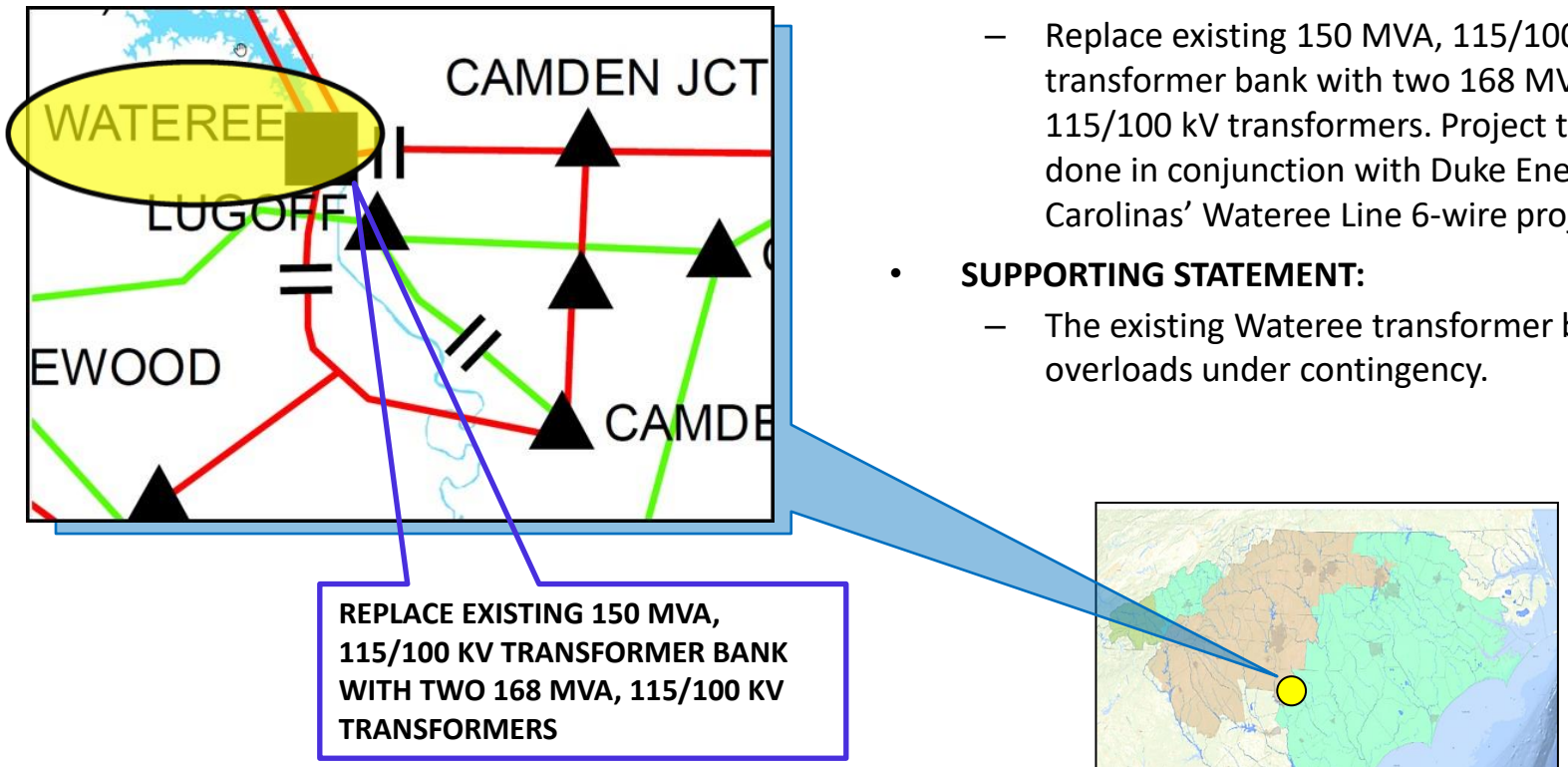
Preliminary Transmission Expansion Plan

DEP East/West Balancing Authority Area

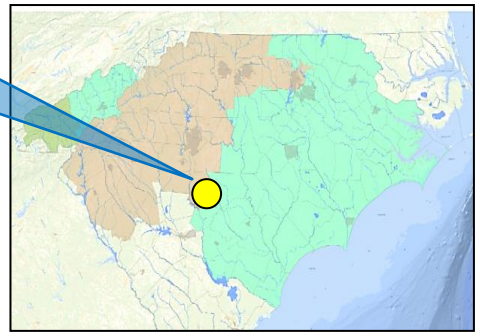
DUKE ENERGY PROGRESS EAST – 1

- **2023**

WATEREE HYDRO PLANT – REPLACE 115/100 KV TRANSFORMERS



- **DESCRIPTION:**
  - Replace existing 150 MVA, 115/100 kV transformer bank with two 168 MVA, 115/100 kV transformers. Project to be done in conjunction with Duke Energy Carolinas' Wateree Line 6-wire project.
- **SUPPORTING STATEMENT:**
  - The existing Wateree transformer bank overloads under contingency.

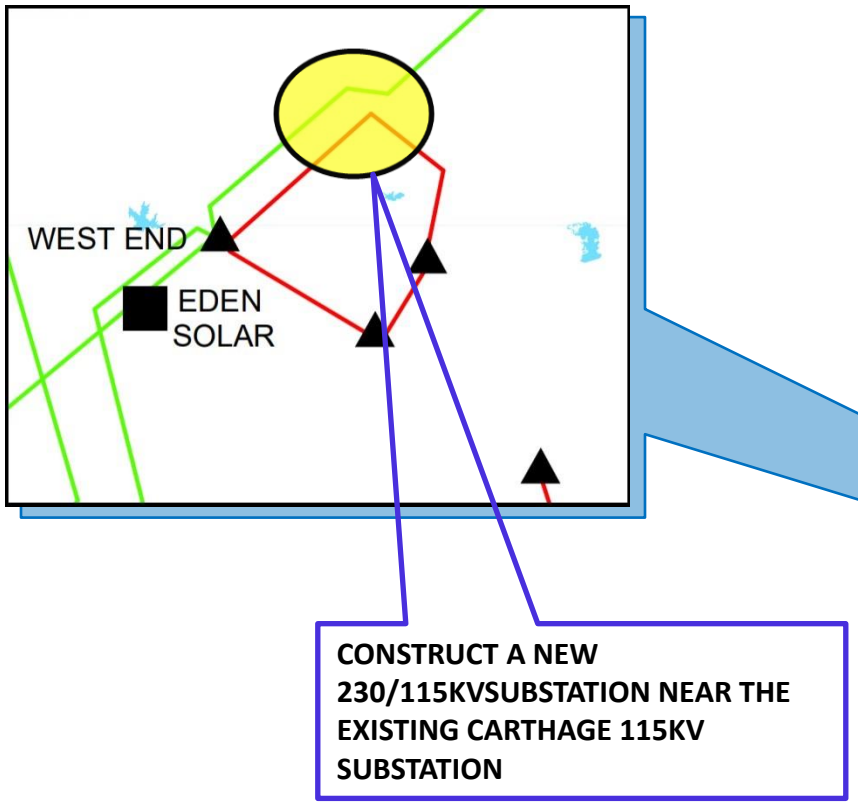


DEP East/West Balancing Authority Area

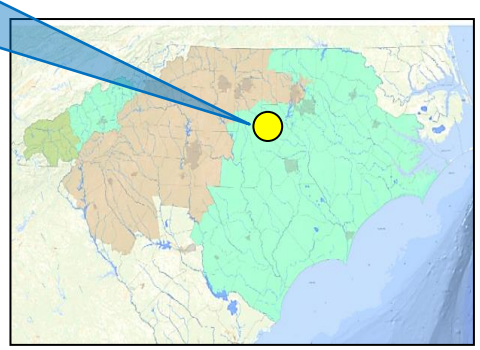
DUKE ENERGY PROGRESS EAST – 2

- **2025**

CARTHAGE 230/115 KV SUBSTATION – CONSTRUCT



- **DESCRIPTION:**
  - Construct a new 230/115kV substation near the existing Carthage 115kV substation. Loop in the existing Cape Fear – West End 230kV line and West End – Southern Pines 115kV feeder.
- **SUPPORTING STATEMENT:**
  - Outage of one West End transformer overloads the other and voltage at Southern Pines 115kV drops below criteria.

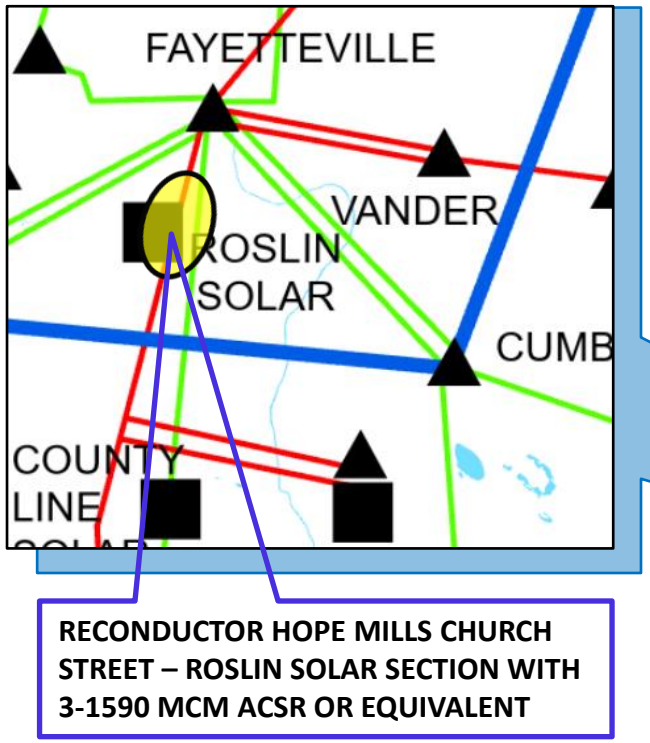


DEP East/West Balancing Authority Area

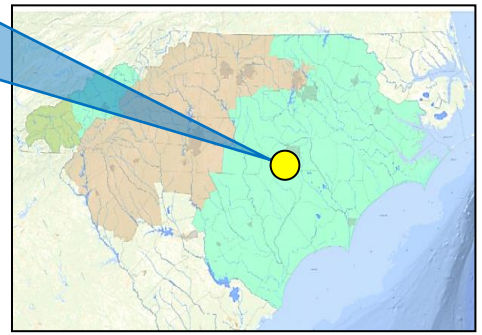
DUKE ENERGY PROGRESS EAST – 3

- **2025**

FAYETTEVILLE - FAYETTEVILLE DUPONT SS 115 KV T.L. – RECONDUCTOR



- **DESCRIPTION:**
  - Reconductor approximately 3.0 miles Hope Mills Church Street – Roslin Solar section of the Fayetteville – Fayetteville Dupont SS 115kV Line with 3-1590 MCM ACSR or equivalent.
- **SUPPORTING STATEMENT:**
  - Outage of the Weatherspoon-Fayetteville 230kV line causes overload of this line section.

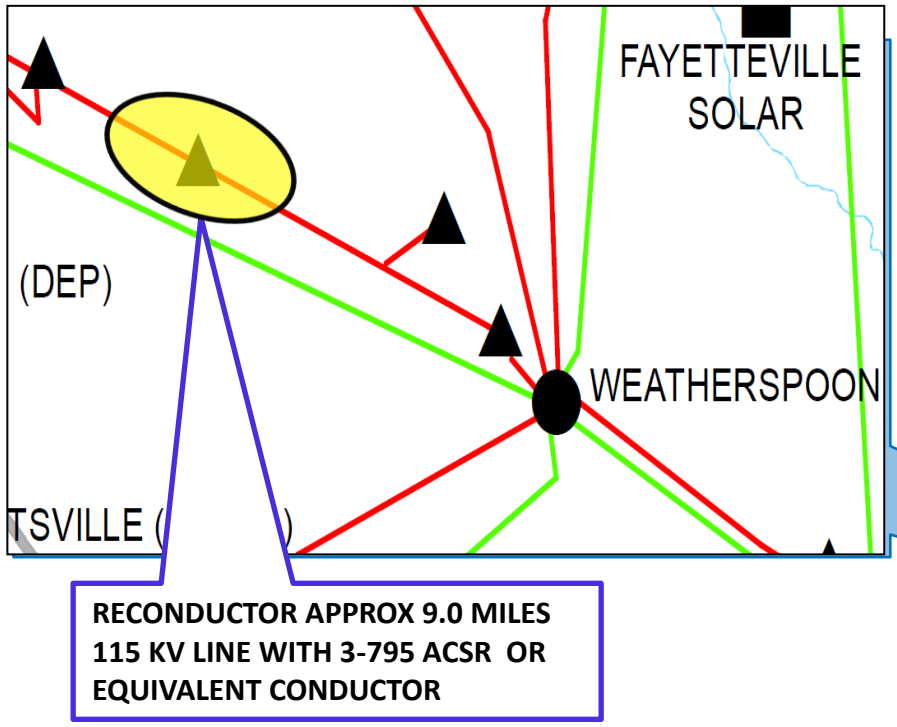


DEP East/West Balancing Authority Area

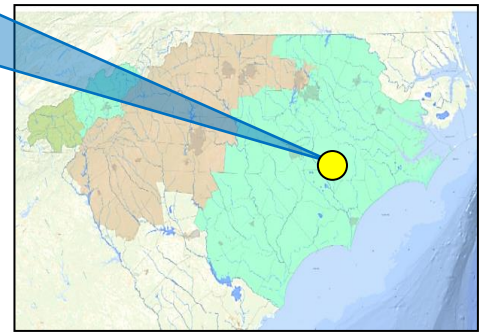
DUKE ENERGY PROGRESS EAST – 4

- **2026**

WEATHERSPOON – LOF 115 KV T.L.



- **DESCRIPTION:**
  - Reconductor approximately 9.0 miles from Maxton to Pembroke 115 kV substation with 3-795 MCM ACSR or equivalent. Replace existing 600A switch with 1200A switch.
- **SUPPORTING STATEMENT:**
  - The Maxton-Pembroke section of the Weatherspoon-LOF 115 kV transmission line overloads under contingency.

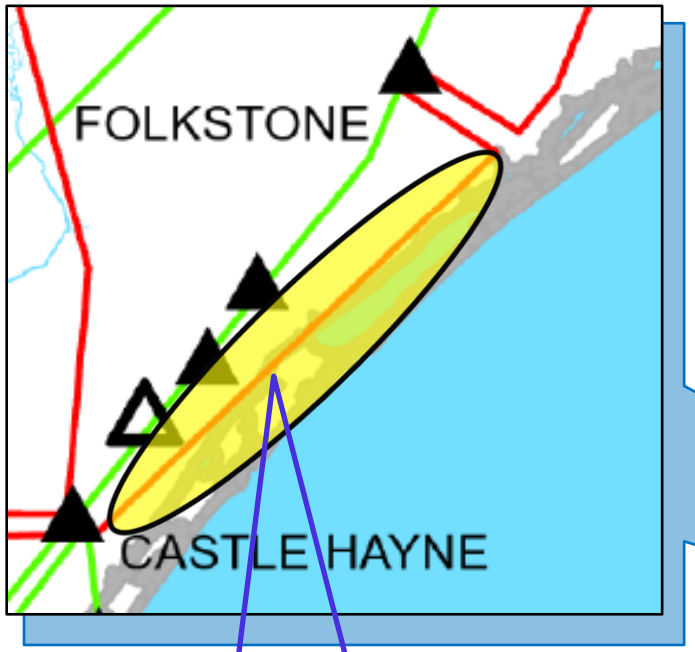


DEP East/West Balancing Authority Area

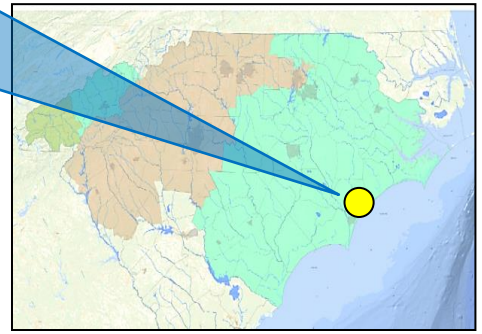
DUKE ENERGY PROGRESS EAST – 5

- **2026**

CASTLE HAYNE - FOLKSTONE 115 KV TRANSMISSION LINE – RECONDUCTOR



- **DESCRIPTION:**
  - Reconductor approximately 25.91 miles of line with 3-1272 MCM ACSR or equivalent.
- **SUPPORTING STATEMENT:**
  - The Castle Hayne – Folkstone 115 kV transmission line overloads under contingency.

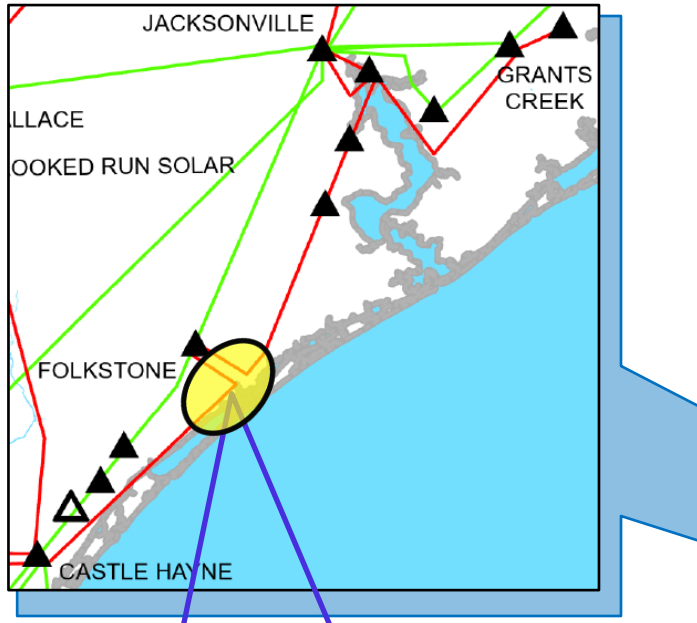


DEP East/West Balancing Authority Area

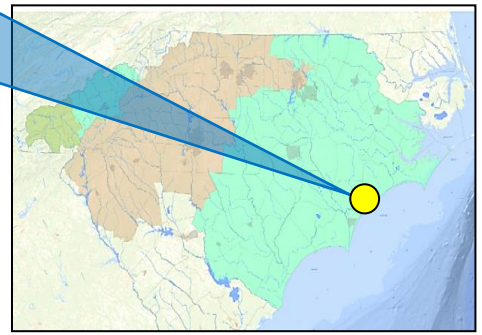
DUKE ENERGY PROGRESS EAST – 6

- **2026**

HOLLY RIDGE NORTH 115 KV SWITCHING STATION – CONSTRUCT SUBSTATION



- **DESCRIPTION:**
  - Construct a new 115kV Switching Station northeast of Holly Ridge, NC where the Castle Hayne-Folkstone 115kV and Folkstone-Jacksonville City 115kV lines come together.
  - Construct a new 115kV feeder from the new switching station to JOEMC Folkstone POD.
- **SUPPORTING STATEMENT:**
  - The Castle Hayne – Folkstone 115 kV transmission line has low voltages at stations along on this line under contingency.

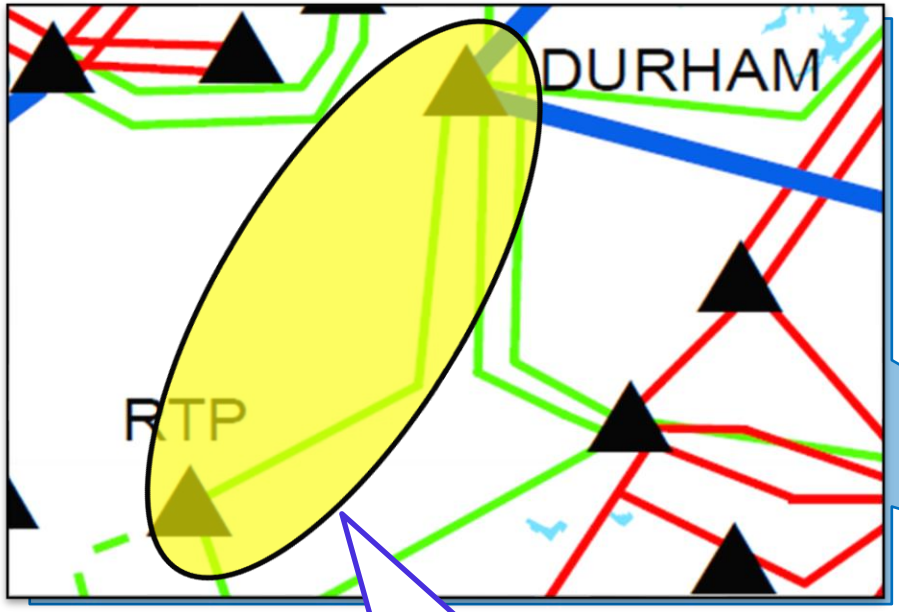


DEP East/West Balancing Authority Area

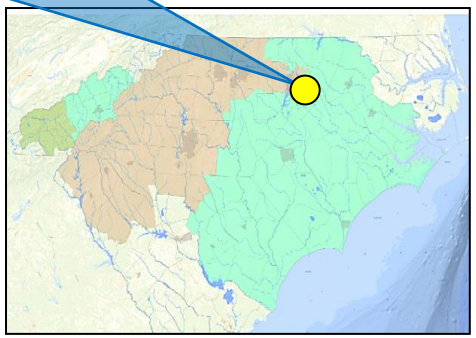
DUKE ENERGY PROGRESS EAST – 7

- **2028**

DURHAM – RTP 230 KV T.L.



- **DESCRIPTION:**
  - Reconductor approximately 10.0 miles of the Durham – RTP 230 kV transmission line with bundled 6-1590 ACSR rated for 1195 MVA.
- **SUPPORTING STATEMENT:**
  - The Durham – RTP 230 kV transmission line overloads under contingency.



DEP East/West Balancing Authority Area

DUKE ENERGY PROGRESS WEST

Balancing Authority Area

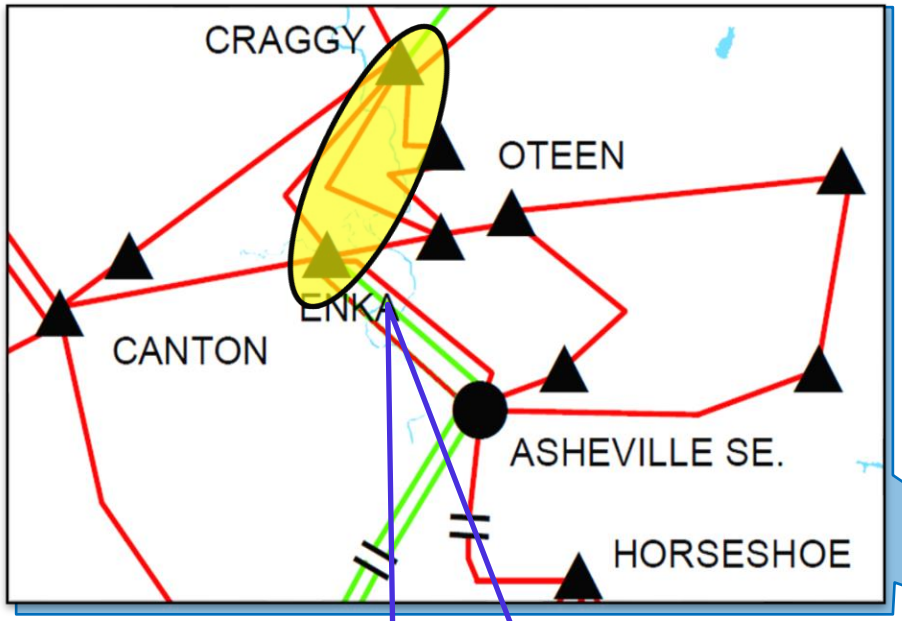
Preliminary Transmission Expansion Plan

DEP East/West Balancing Authority Area

DUKE ENERGY PROGRESS WEST – 1

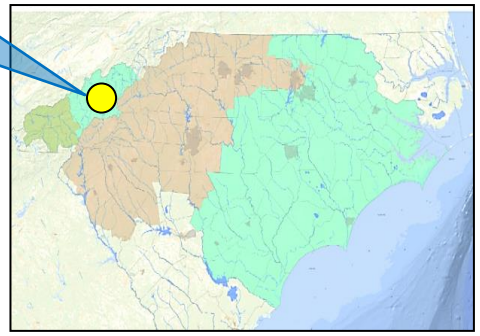
- **2025**

CRAGGY - ENKA 230 KV TRANSMISSION LINE – CONSTRUCT



CONSTRUCT APPROXIMATELY 10.0 MILES OF 230 KV TRANSMISSION LINE FROM THE CRAGGY 230 KV SUB TO THE ENKA 230 KV SUB WITH 3-1590 MCM ACSR OR EQUIVALENT

- **DESCRIPTION:**
  - Construct approximately 10.0 miles of new 230 kV transmission line from the Craggy 230 kV substation to the Enka 230 kV substation with 3-1590 MCM ACSR or equivalent.
- **SUPPORTING STATEMENT:**
  - The Enka-West Asheville, Craggy-Enka, Asheville-Oteen West, Oteen-West Asheville, and Craggy-Vanderbilt 115 kV lines and Enka 230/115kV transformer overload under various contingencies.

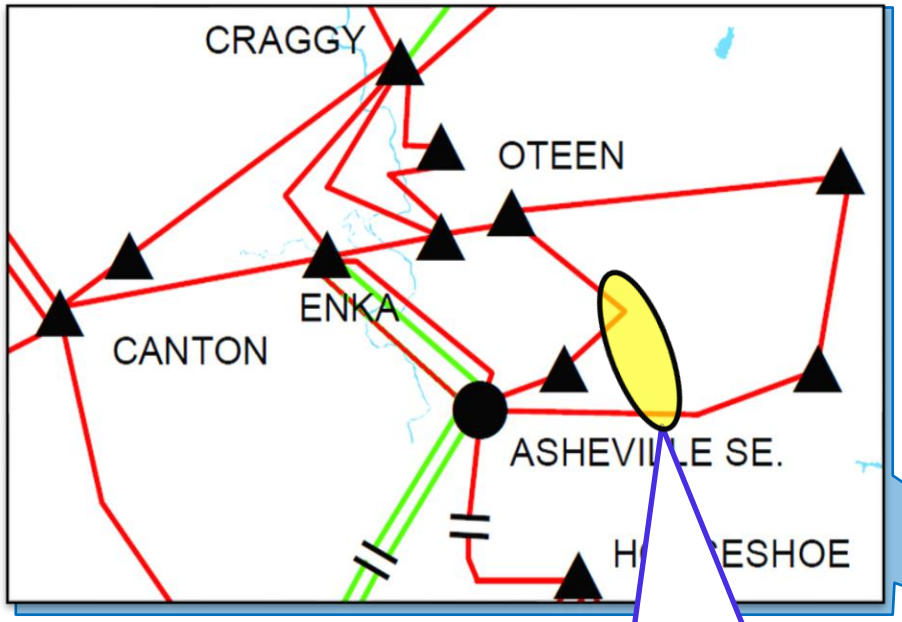


DEP East/West Balancing Authority Area

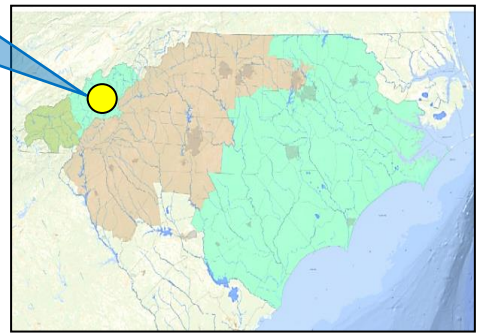
DUKE ENERGY PROGRESS WEST – 2

- **2026**

ASHEVILLE PLANT – OTEEN WEST 115 KV T.L., BALDWIN TAP



- **DESCRIPTION:**
  - Construct approximately 2.2 miles of new 115 kV transmission line from the Asheville Plant – Oteen West 115 kV transmission line to the Asheville Plant – Oteen East 115 kV transmission line with 795 ACSR. The Baldwin 115 kV substation will be reconnected to this new tap line.
- **SUPPORTING STATEMENT:**
  - Additional voltage support is needed in the Baldwin area.



DUKE ENERGY PROGRESS WEST

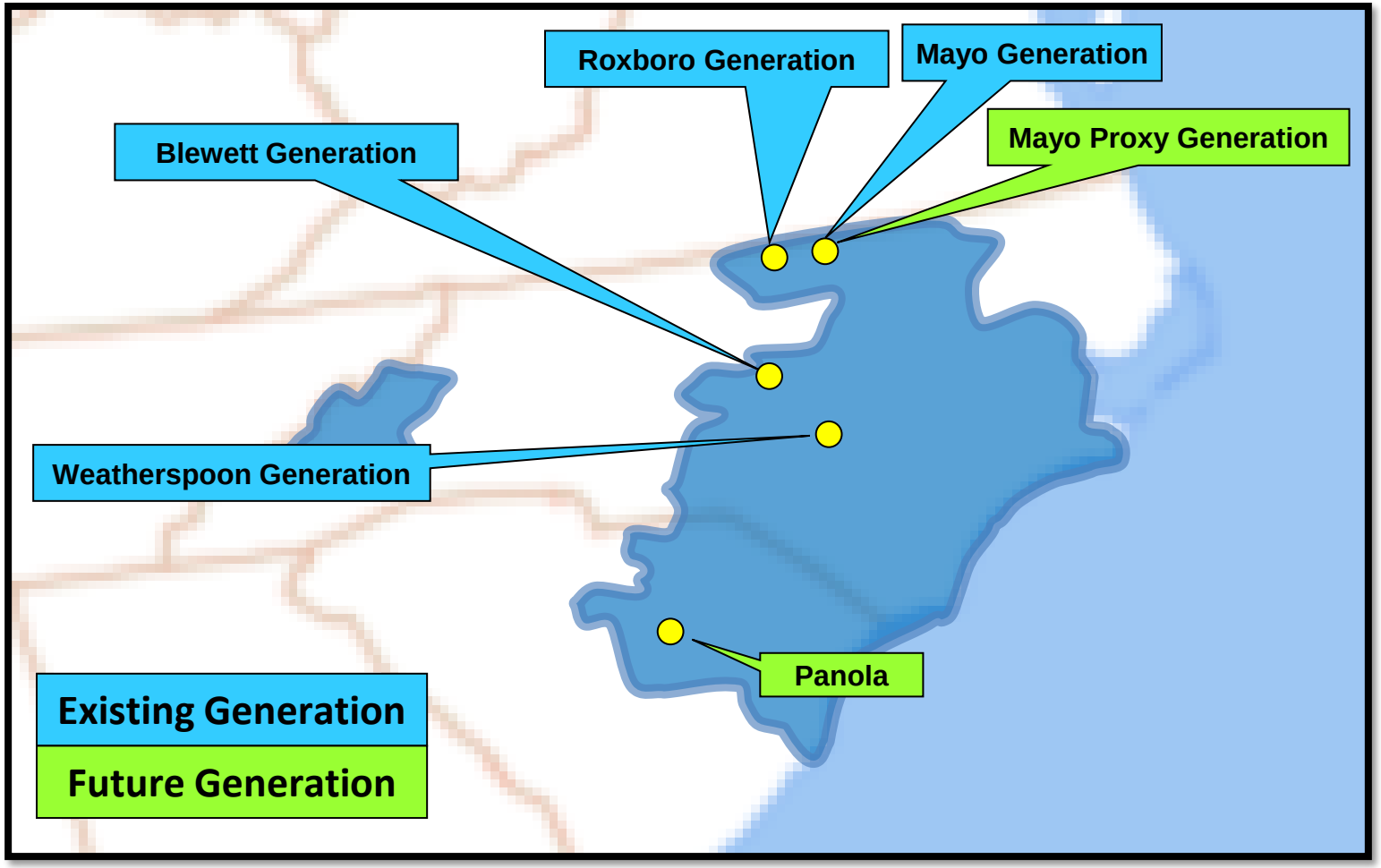
Balancing Authority Area

Upcoming 2023 Generation Assumptions

DUKE ENERGY PROGRESS EAST/WEST Balancing Authority Areas

DUKE ENERGY PROGRESS – Generation Assumptions

The following diagram depicts the location of generation assumptions that change throughout the ten year planning horizon for the 2023 SERTP Process.



DUKE ENERGY PROGRESS – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2023 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
BLEWETT IC #1	OIL	13	0	--	--	--	--	--	--	--	--
BLEWETT IC #2	OIL	13	0	--	--	--	--	--	--	--	--
BLEWETT IC #3	OIL	13	0	--	--	--	--	--	--	--	--
BLEWETT IC #4	OIL	13	0	--	--	--	--	--	--	--	--
WEATHERSPOON IC #1	GAS/OIL	32	0	--	--	--	--	--	--	--	--
WEATHERSPOON IC #2	GAS/OIL	32	0	--	--	--	--	--	--	--	--
WEATHERSPOON IC #3	GAS/OIL	33	0	--	--	--	--	--	--	--	--
WEATHERSPOON IC #4	GAS/OIL	31	0	--	--	--	--	--	--	--	--

DUKE ENERGY PROGRESS – Generation Assumptions (Cont.)

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2023 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
ROXBORO #1 COAL	COAL	379	379	379	379	379	0	--	--	--	--
ROXBORO #2 COAL	COAL	665	665	665	665	665	0	--	--	--	--
ROXBORO #3 COAL	COAL	691	691	691	691	0	--	--	--	--	--
ROXBORO #4 COAL	COAL	698	698	698	698	0	--	--	--	--	--
MAYO COAL	COAL	727	727	727	727	727	0	--	--	--	--
ROXBORO PROXY #1	--	--	--	--	--	1350	1350	1350	1350	1350	1350
ROXBORO PROXY #2	--	--	--	--	--	--	1350	1350	1350	1350	1350
MAYO PROXY	--	--	--	--	--	--	602	602	602	602	602

DUKE ENERGY PROGRESS – Generation Assumptions (Cont.)

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2023 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
GOLD VALLEY PV	PV	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
CABIN CREEK PV	PV	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2
CAMP LEJEUNE BATTERY	BATTERY	11	11	11	11	11	11	11	11	11	11
SAPONY CREEK PV	PV	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4
NUTBUSH PV	PV	35	35	35	35	35	35	35	35	35	35
LOFTINS XROADS PV	PV	75	75	75	75	75	75	75	75	75	75
PIG BSKT CRK PV	PV	80	80	80	80	80	80	80	80	80	80
PANOLA PV	PV	67	67	67	67	67	67	67	67	67	67

DUKE ENERGY PROGRESS – Generation Assumptions (Point-to-Point)

The following table depicts generation assumptions based upon expected long-term firm point-to-point commitments. The years shown represent Summer Peak conditions.

SITE	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
HAMLET #1	55	55	55	55	55	55	55	55	55	55
HAMLET #2	55	55	55	55	55	55	55	55	55	55
HAMLET #3	55	55	55	55	55	55	55	55	55	55

LG&E/KU Balancing Authority Area

Generation Assumptions

LG&E/KU – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2022 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Ashwood	Solar	86	86	86	86	86	86	86	86	86	86

LG&E/KU Balancing Authority Area

LG&E/KU – Generation Assumptions (Point-to-Point)

The following table depicts generation assumptions based upon expected long-term firm point-to-point commitments. The years shown represent Summer Peak conditions.

SITE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
TRIMBLE COUNTY	324	324	324	324	324	324	324	324	324	324

LG&E/KU Balancing Authority Area

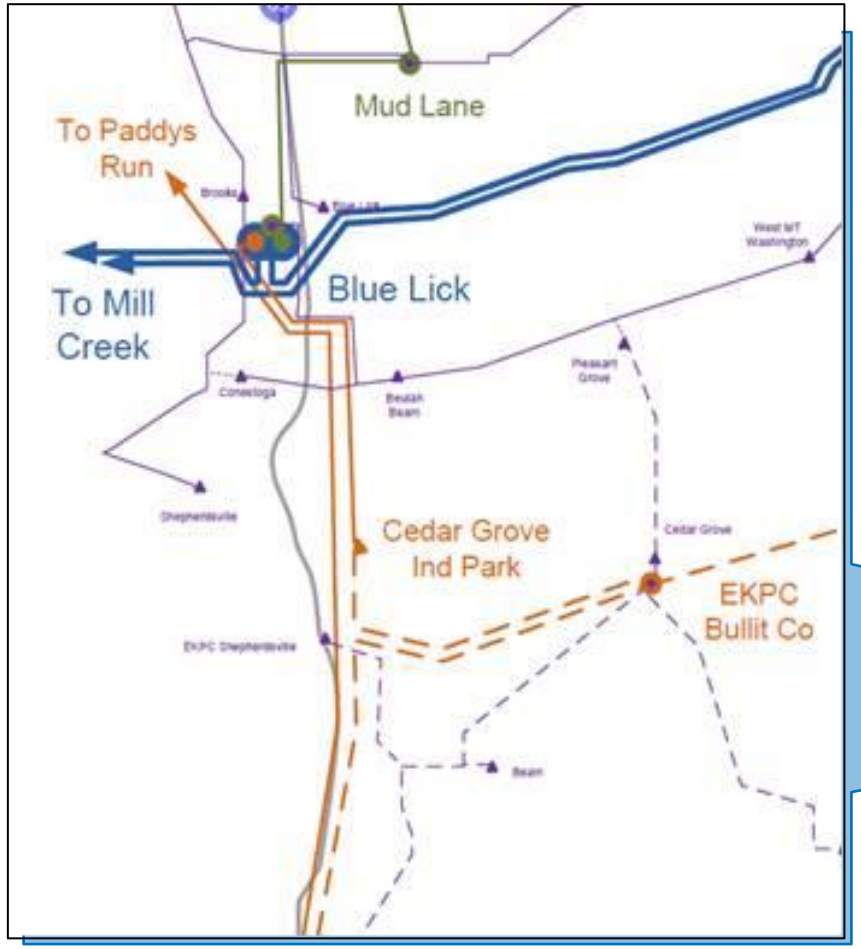
Preliminary Transmission Expansion Plan

LG&E/KU Balancing Authority Area

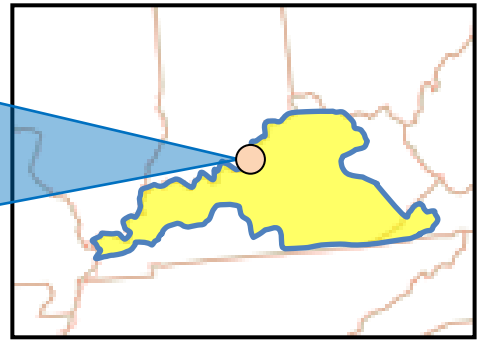
LG&E/KU - 1

- **2024**

BLUE LICK – CEDAR GROVE 161 KV



- **DESCRIPTION:**
  - Reconductor approximately 4.7 miles of the Blue Lick - Cedar Grove 161 kV transmission line with 795 ACSR or better.
- **SUPPORTING STATEMENT:**
  - The Blue Lick – Cedar Grove 161 KV transmission line overloads under contingency.

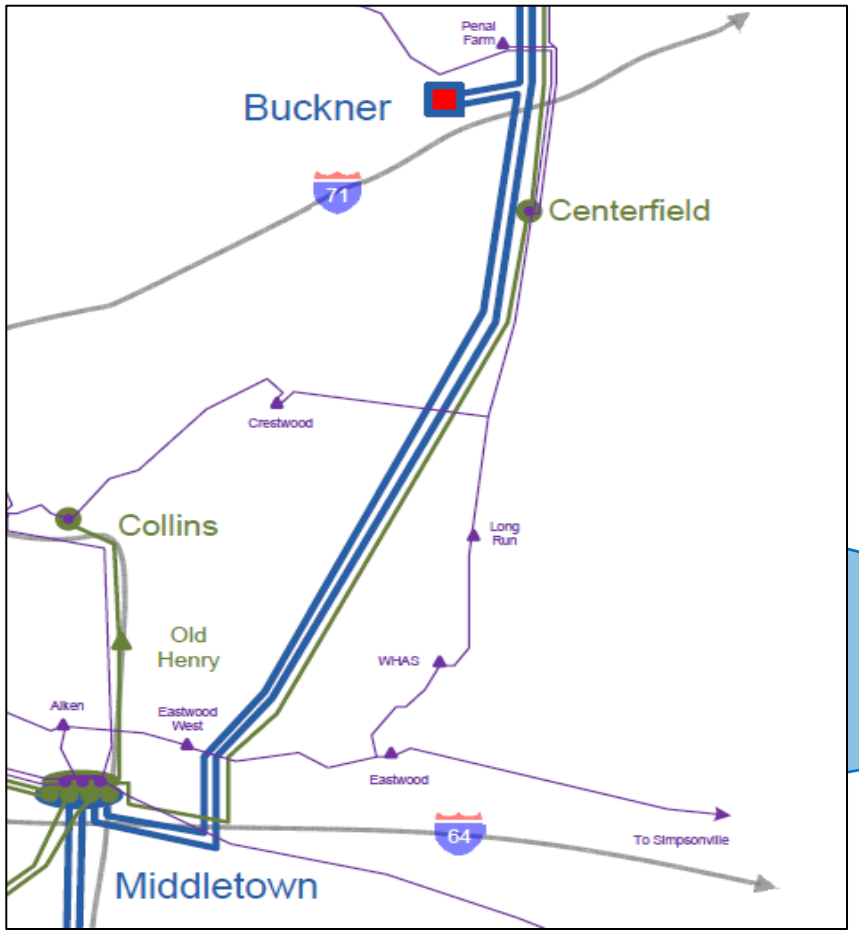


LG&E/KU Balancing Authority Area

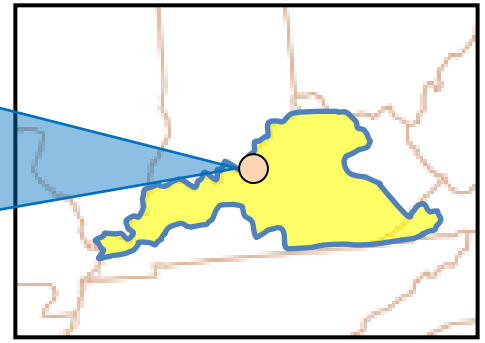
LG&E/KU - 2

- **2025**

MIDDLETOWN – BUCKNER 345 KV



- **DESCRIPTION:**
  - Replace the 345kV 2000A breakers associated with the Middletown – Buckner 345kV line with 3000A breakers.
- **SUPPORTING STATEMENT:**
  - The Middletown – Buckner 345 kV transmission line overloads under contingency.



LG&E/KU Balancing Authority Area

Upcoming 2022 Generation Assumptions

* LG&E/KU has no generation assumptions expected to change throughout the ten year planning horizon for the 2022 SERTP Process.

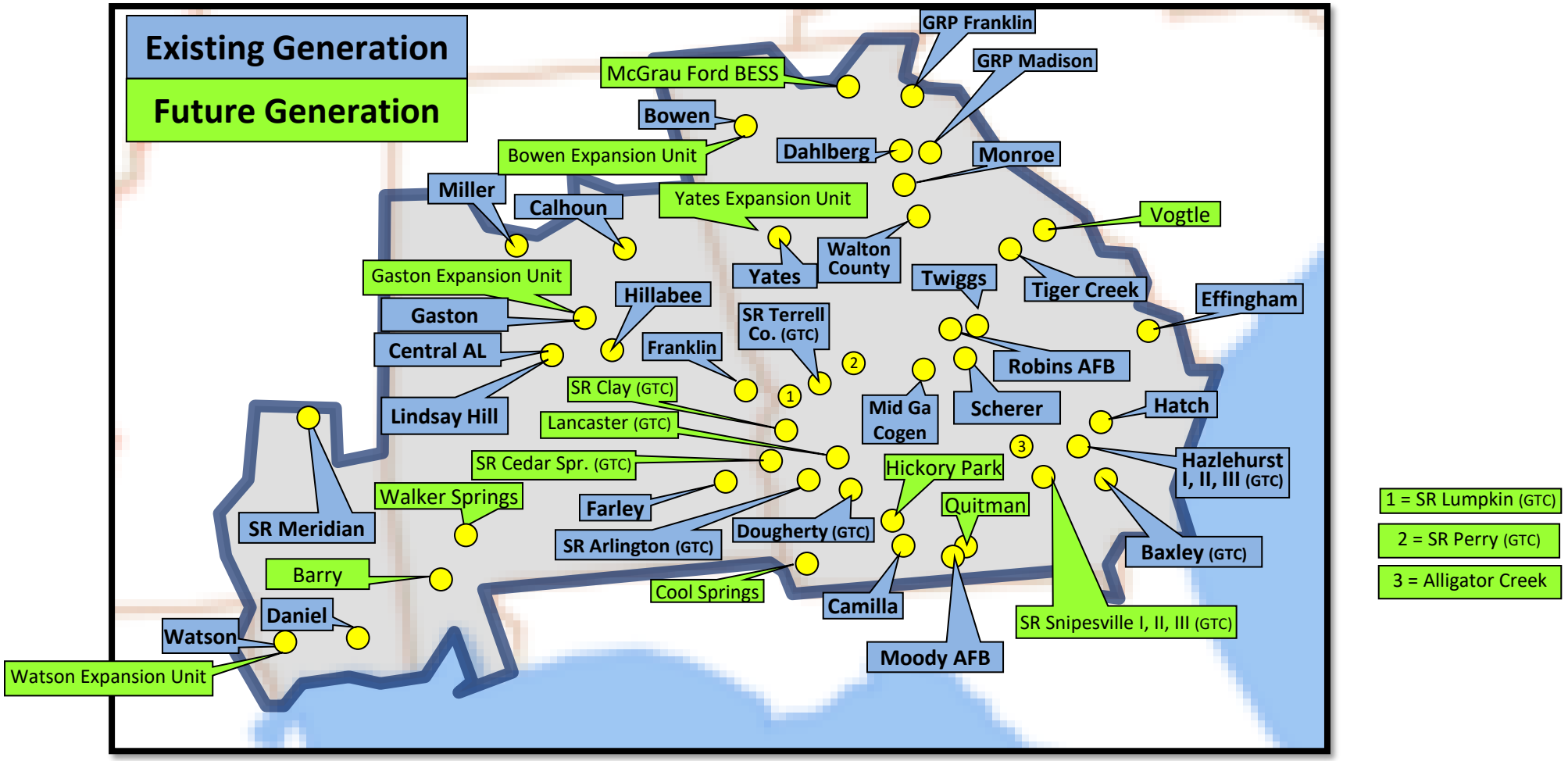
SOUTHERN Balancing Authority Area

Generation Assumptions

SOUTHERN Balancing Authority Area

SOUTHERN – Generation Assumptions

The following diagram depicts the location of generation assumptions <u>that change</u> throughout the ten year planning horizon for the 2022 SERTP Process.



Southern Company – Generation Assumptions

The following table depicts the generation assumptions <u>that change</u> throughout the ten year planning horizon for the 2022 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
BOWEN 1*	COAL	728	728	728	728	728	0	--	--	--	--
BOWEN 2 *	COAL	728	728	728	728	728	0	--	--	--	--
BOWEN 3*	COAL	889	889	889	889	889	889	889	889	0	--
BOWEN 4 *	COAL	891	891	891	891	891	891	891	891	0	--
SCHERER 1[1]	COAL	74	74	74	74	74	74	0	--	--	--
SCHERER 2[1]	COAL	74	74	74	74	74	74	0	--	--	--
SCHERER 3	COAL	661	661	661	661	661	661	0	--	--	--
YATES EXPANSION UNIT[2]	--	--	--	--	--	--	--	--	800	800	800
BOWEN EXPANSION UNIT[2]	--	--	--	--	--	--	--	--	--	800	1600

*This assumption may be modified as resource decisions are made by the corresponding LSEs pursuant to applicable regulatory processes

[1]Only includes GPC's portion of Scherer 1 & 2

[2]The expansion unit locations shown do not represent long term generation resource plans and may be moved based on study needs

Southern Company – Generation Assumptions

The following table depicts the generation assumptions <u>that change</u> throughout the ten year planning horizon for the 2022 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
BARRY 5*	COAL	785	0	--	--	--	--	--	--	--	--
BARRY 1	GAS	80	80	80	80	80	0	--	--	--	--
BARRY 2	GAS	80	80	80	80	80	0	--	--	--	--
GASTON 1	COAL/GAS	254	254	254	254	254	254	0	--	--	--
GASTON 2	COAL/GAS	256	256	256	256	256	256	0	--	--	--
GASTON 3	COAL/GAS	254	254	254	254	254	254	0	--	--	--
GASTON 4	COAL/GAS	256	256	256	256	256	256	0	--	--	--
GASTON 5	COAL/GAS	872	872	895	895	895	895	895	895	895	895
GASTON EXPANSION UNIT[1]	--	--	--	--	--	--	--	--	--	800	800

*This assumption may be modified as resource decisions are made by the corresponding LSEs pursuant to applicable regulatory processes

[1]The expansion unit locations shown do not represent long term generation resource plans and may be moved based on study needs

Southern Company – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2022 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
WATSON 4	GAS	272	0	--	--	--	--	--	--	--	--
DANIEL 2	COAL	510	510	510	510	510	0	--	--	--	--
GREENE COUNTY 1	GAS	258	258	258	0	--	--	--	--	--	--
GREENE COUNTY 2	GAS	258	258	258	258	0	--	--	--	--	--
GADSDEN 1	GAS	0	--	--	--	--	--	--	--	--	--
GADSDEN 2	GAS	0	--	--	--	--	--	--	--	--	--
WATSON EXPANSION UNIT[1]	--	--	--	--	--	--	--	--	400	400	400

[1]The expansion unit locations shown do not represent long term generation resource plans and may be moved based on study needs

Southern Company – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2022 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
BARRY 8	Gas	--	653	653	653	653	685	685	685	685	685
VOGTLE 3	Nuclear	509	509	509	509	509	509	509	509	509	509
VOGTLE 4	Nuclear	--	509	509	509	509	509	509	509	509	509
YATES 6-7	Gas	649	714	714	714	714	714	714	714	714	714
CENTRAL ALABAMA	Gas	890	890	890	890	890	890	890	890	890	890
CALHOUN 1-4	Gas	690	690	690	690	690	690	690	690	690	690
WANSLEY 7	Gas	--	--	622	622	622	622	622	622	622	622

Southern Company – Generation Assumptions (Cont.)

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2022 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
BIRD DOG SOLAR	Solar	40	40	40	40	40	40	40	40	40	40
BULLDOG SOLAR	Solar	80	80	80	80	80	80	80	80	80	80
CANE CREEK SOLAR	Solar	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5
MOONSHOT SOLAR	Solar	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5
GREENVILLE SOLAR	Solar	80	80	80	80	80	80	80	80	80	80
SONNY SOLAR	Solar	40	40	40	40	40	40	40	40	40	40
WADLEY SOLAR	Solar	--	260	260	260	260	260	260	260	260	260
WALKER SPRINGS I, II SOLAR	Solar	--	--	160	160	160	160	160	160	160	160
ALLIGATOR CREEK SOLAR	Solar	80	80	80	80	80	80	80	80	80	80

SOUTHERN Balancing Authority Area

Southern Company – Generation Assumptions (Cont.)

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2022 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
BLACK WATER SOLAR	Solar	80	80	80	80	80	80	80	80	80	80
WOLFSKIN SOLAR	Solar	38	38	38	38	38	38	38	38	38	38
DOUBLE RUN SOLAR	Solar	--	220	220	220	220	220	220	220	220	220
DECATUR SOLAR	Solar	--	200	200	200	200	200	200	200	200	200
WASHINGTON CO	Solar	--	150	150	150	150	150	150	150	150	150
TIMBERLAND SOLAR	Solar	--	140	140	140	140	140	140	140	140	140
HOBNAIL SOLAR	Solar	70	70	70	70	70	70	70	70	70	70
FORT STEWART SOLAR	Solar	30	43	43	43	43	43	43	43	43	43
MOSSY BRANCH BESS	BESS	65	65	65	65	65	65	65	65	65	65
MCGRAU FORD BESS	BESS	--	--	--	265	265	265	265	265	265	265

SOUTHERN Balancing Authority Area

SOUTHERN COMPANY – Generation Assumptions (Point-to-Point)

The following table depicts generation assumptions based upon expected long-term firm point-to-point commitments. The years shown represent Summer Peak conditions.

SITE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
BOWEN	159	159	159	159	159	159	159	159	159	159
CENTRAL ALABAMA	0	--	--	--	--	--	--	--	--	--
DAHLBERG	494	494	419	419	419	194	194	194	194	194
DANIEL	650	100	100	100	100	100	100	100	100	100
HAMMOND	10	10	10	10	10	10	10	10	10	10
HILLABEE	350	350	350	350	350	350	350	350	350	350
LINDSAY HILL	220	220	220	220	220	220	220	220	220	220
VOGTLE	103	206	206	206	206	206	206	206	206	206

GTC – Generation Assumptions

The following table depicts the generation assumptions <u>that change</u> throughout the ten year planning horizon for the 2022 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
SR CEDAR SPRINGS	SOLAR	70	70	70	70	70	70	70	70	70	70
SR CLAY	SOLAR	106	106	106	106	106	106	106	106	106	106
SR AILEY	SOLAR	--	80	80	80	80	80	80	80	80	80
SR SNIPESVILLE III	SOLAR	107	107	107	107	107	107	107	107	107	107
VOGTLE 3	NUCLEAR	334	334	334	334	334	334	334	334	334	334
VOGTLE 4	NUCLEAR	--	334	334	334	334	334	334	334	334	334
EFFINGHAM	GAS	518	545	545	545	545	545	545	545	545	545
TIGER CREEK	GAS	--	320	320	320	320	320	320	320	320	320

MEAG – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2022 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
VOGTLE 3	NUCLEAR	253	253	253	253	253	253	253	253	253	253
VOGTLE 4	NUCLEAR	--	253	253	253	253	253	253	253	253	253

DALTON – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2022 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
VOGTLE 3	NUCLEAR	18	18	18	18	18	18	18	18	18	18
VOGTLE 4	NUCLEAR	--	18	18	18	18	18	18	18	18	18

SOUTHERN Balancing Authority Area

2023 Upcoming Generation Assumptions

- At this time, the SBAA has no generation assumptions changing throughout the ten-year planning horizon for the 2023 SERTP Process.

SOUTHERN (WEST) Balancing Authority Area

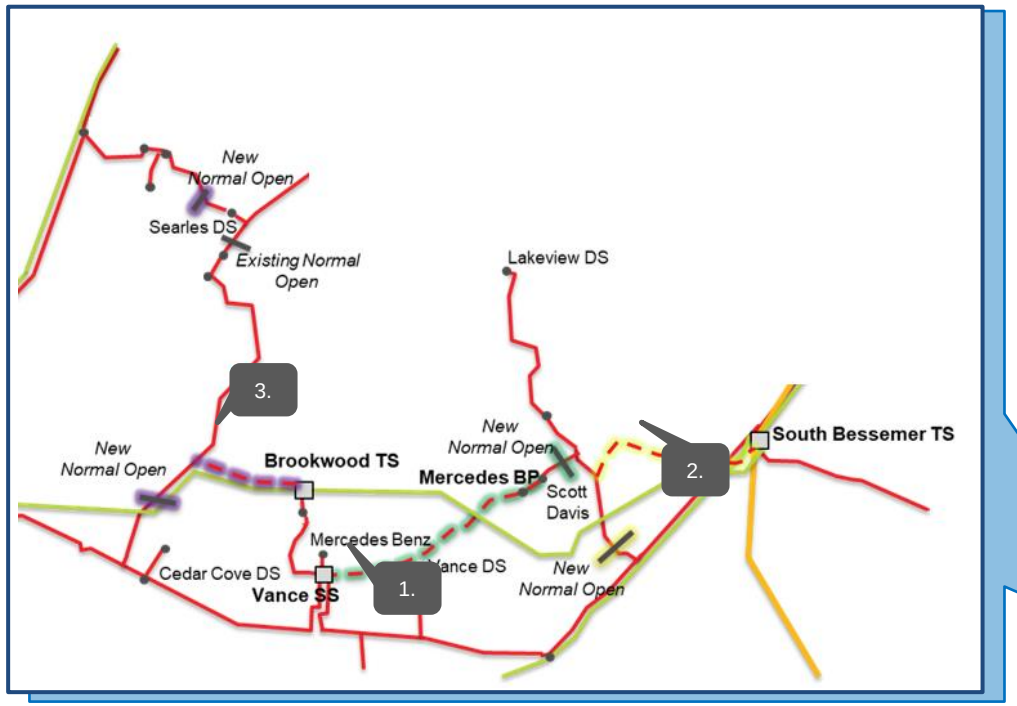
SERTP Regional Transmission Expansion Plan

SOUTHERN Balancing Authority Area

SOUTHERN – 1W

• **2023**

HWY 11 BROOKWOOD AREA SOLUTION

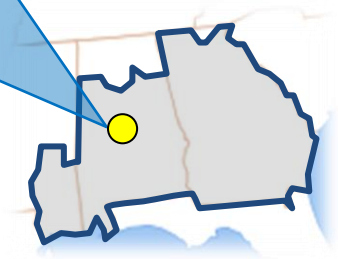


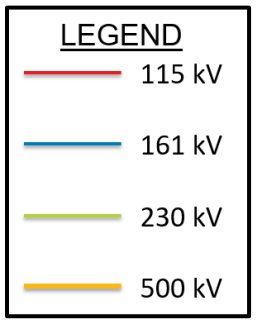
PROJECT DESCRIPTION:

1. Construct approximately 6.0 miles of 795 ACSR from Vance SS to Scott Davis DS 115 kV transmission line.
2. Construct a new approximately 5.2 mile 115 kV TL South Bessemer to Scott Davis Tap with 795 26/7 ACSR at 100°C.
3. Construct a new approximately 4 mile 115 kV TL from Brookwood TS to Warrior Met Area with 795 26/7 ACSR at 100°C.

SUPPORTING STATEMENT:

- The Vance SS – South Bessemer TS 115 kV transmission line overloads under contingency. This project also addresses voltage constraints under contingency.

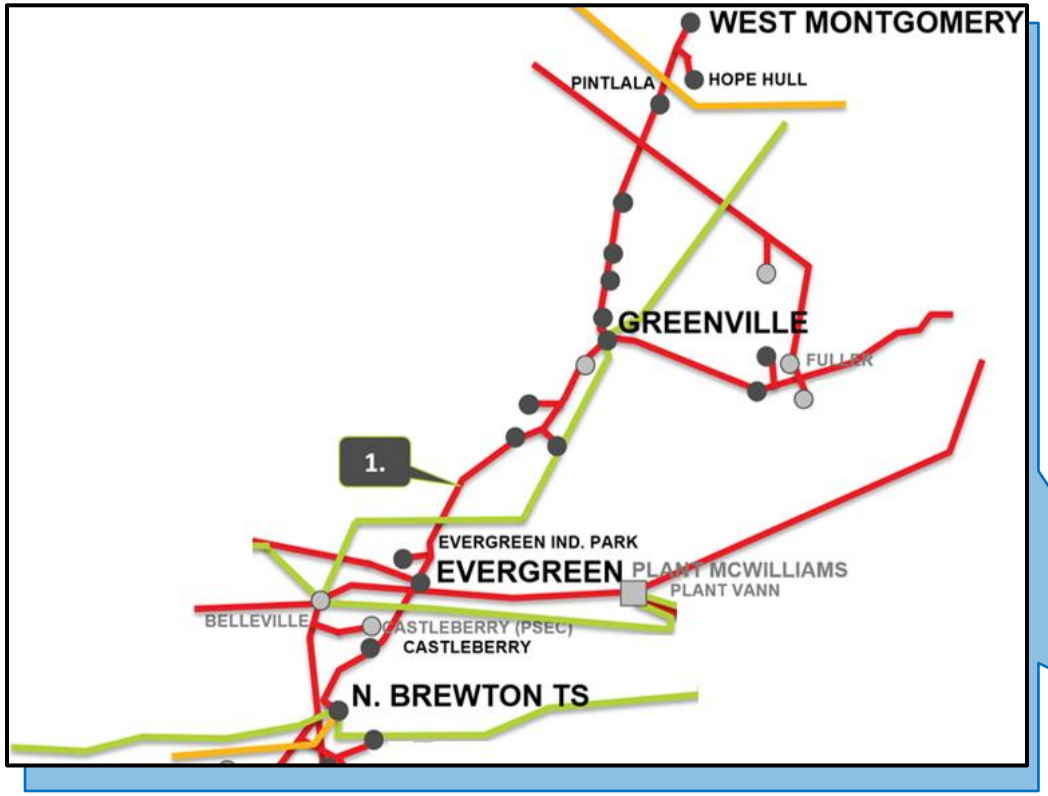




SOUTHERN – 2W

- **2023**

CENTRAL CORRIDOR SOLUTION 115 KV PROJECT

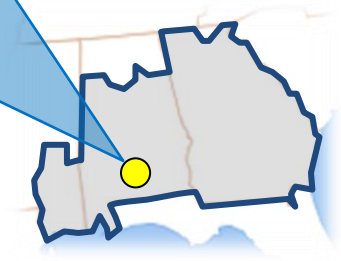


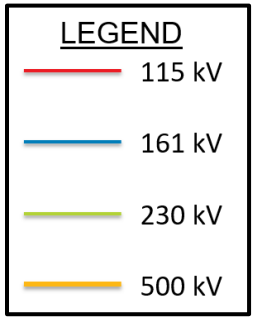
PROJECT DESCRIPTION:

1. Rebuild approximately 97.0 miles of 115 kV transmission line from West Montgomery to North Brewton 115 kV transmission line with 795 ACSS at 200˚C.

SUPPORTING STATEMENT:

- Multiple sections of the central corridor overload under contingency. This project also provides additional operational and maintenance flexibility which then increases reliability.



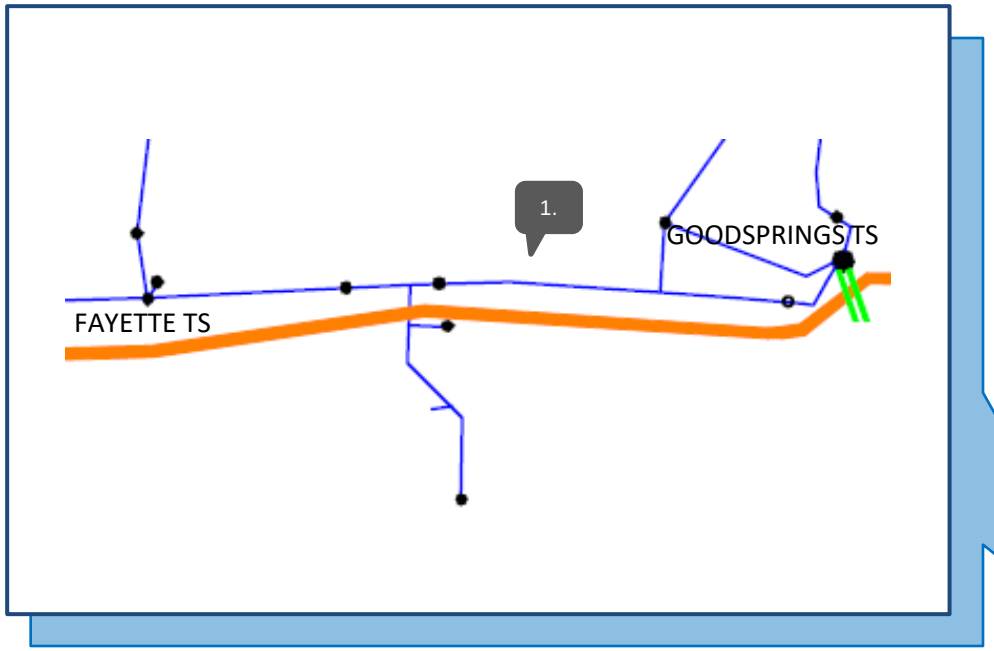


SOUTHERN Balancing Authority Area

SOUTHERN – 3W

• **2023**

FAYETTE – GOODSPRINGS TS 161 KV TRANSMISSION LINE

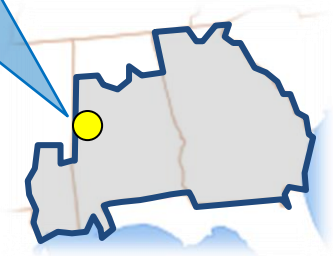


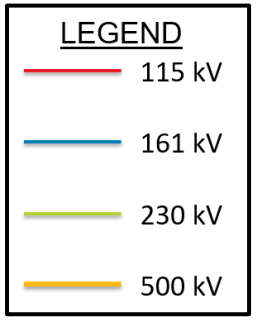
PROJECT DESCRIPTION:

1. Rebuild approximately 37.0 miles of 397 ACSR from Fayette to Goodsprings TS 161 kV transmission line with 795 ACSS at 200˚C.

SUPPORTING STATEMENT:

- The Fayette – Goodsprings TS 161 kV transmission line overloads under contingency.



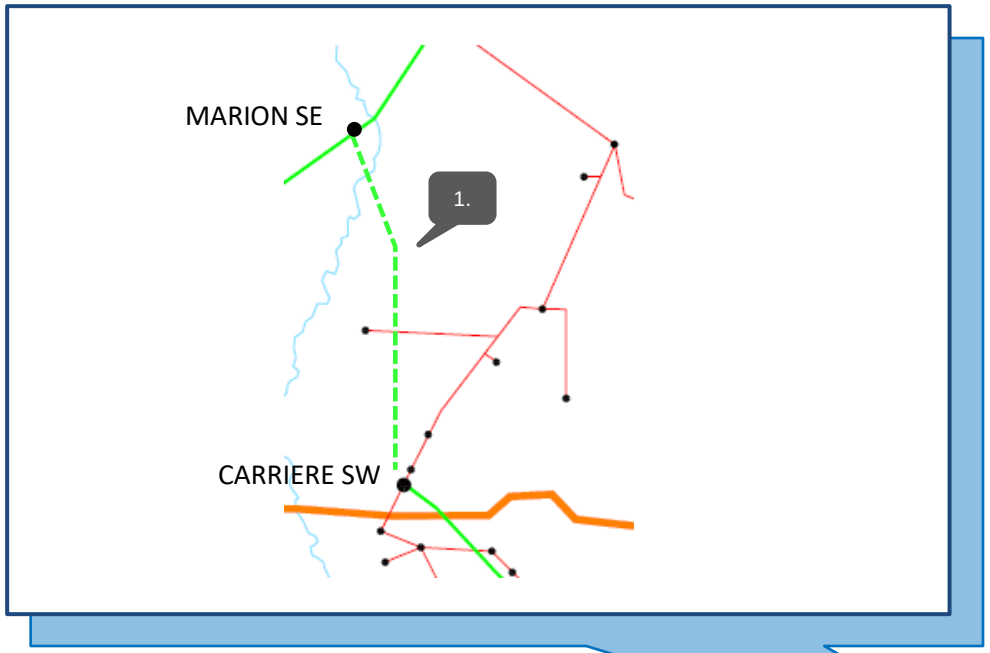


SOUTHERN Balancing Authority Area

SOUTHERN – 4W

• **2023**

CARRIERE SW – MARION SE 230 KV TRANSMISSION LINE

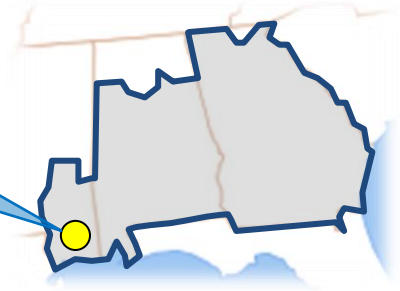


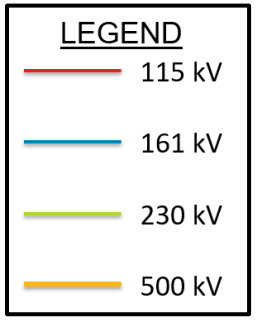
PROJECT DESCRIPTION:

1. Construct a new approximately 33 mile, 230 kV line from Carriere SW 230/115 kV substation to a new Marion SE 230 kV switching station with 1351 ACSS at 200°C.

SUPPORTING STATEMENT:

- The Hattiesburg SW - Wiggins 115 kV line overloads under contingency.



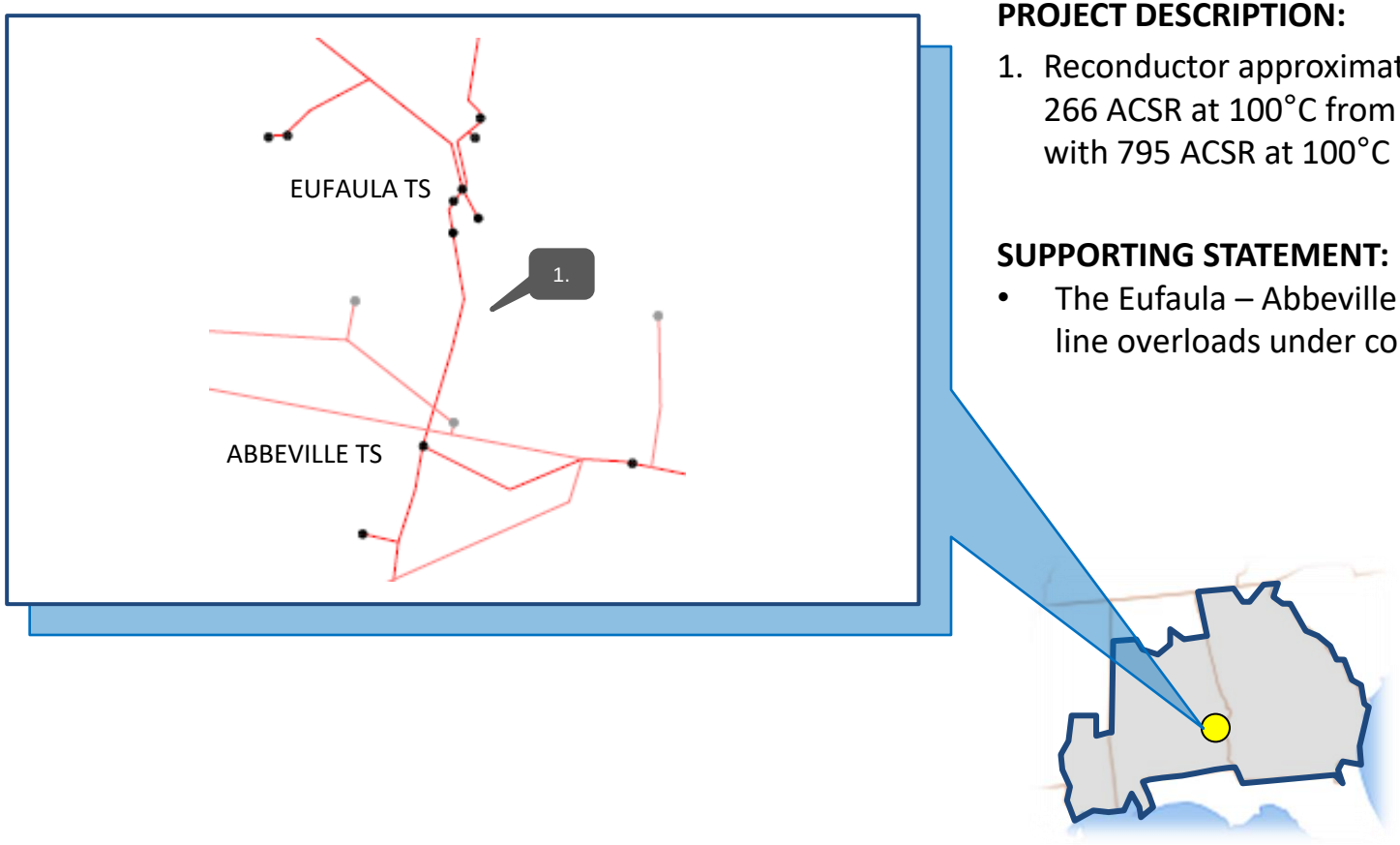


SOUTHERN Balancing Authority Area

SOUTHERN – 5W

- **2024**

EUFAULA – GEORGE DAM – WEBB 115 KV TRANSMISSION LINE



PROJECT DESCRIPTION:

1. Reconductor approximately 45.3 miles of 266 ACSR at 100°C from Eufaula to Webb with 795 ACSR at 100°C

SUPPORTING STATEMENT:

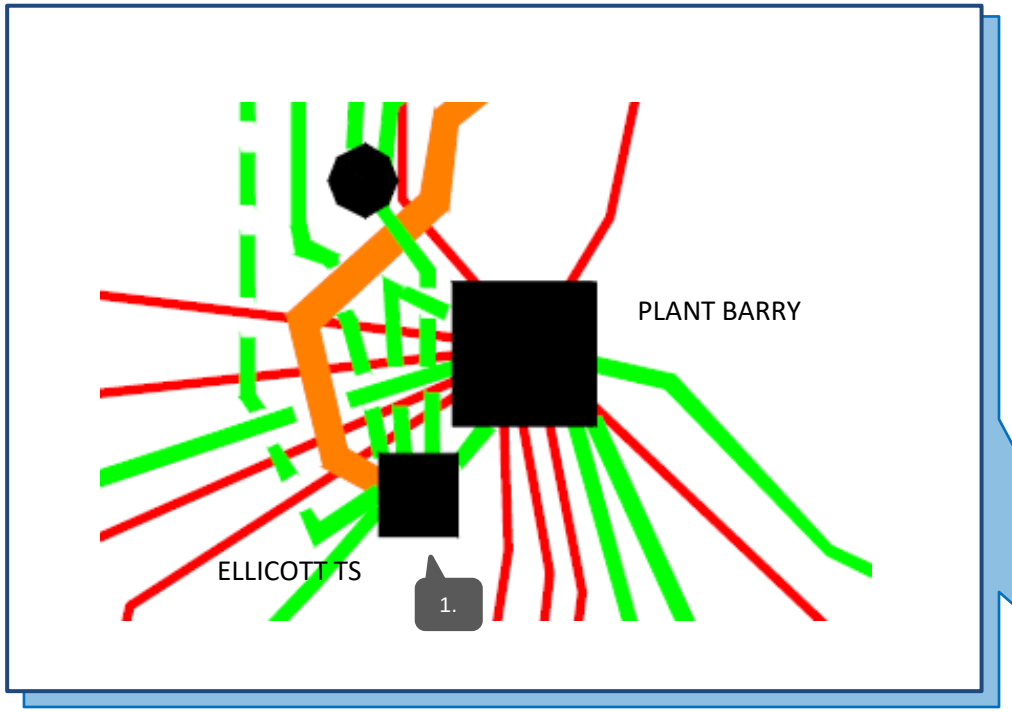
- The Eufaula – Abbeville 115 kV transmission line overloads under contingency.

SOUTHERN Balancing Authority Area

SOUTHERN – 6W

• **2024**

ELLICOTT SUBSTATION EXPANSION PROJECT

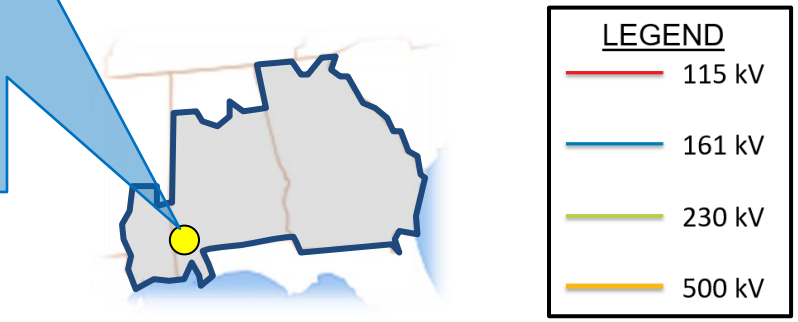


PROJECT DESCRIPTION:

1. Relocate existing 115 kV transmission lines to a new 115 kV substation

SUPPORTING STATEMENT:

- Upgrade existing and construct new transmission facilities to provide additional operational and maintenance flexibility, which increases reliability.

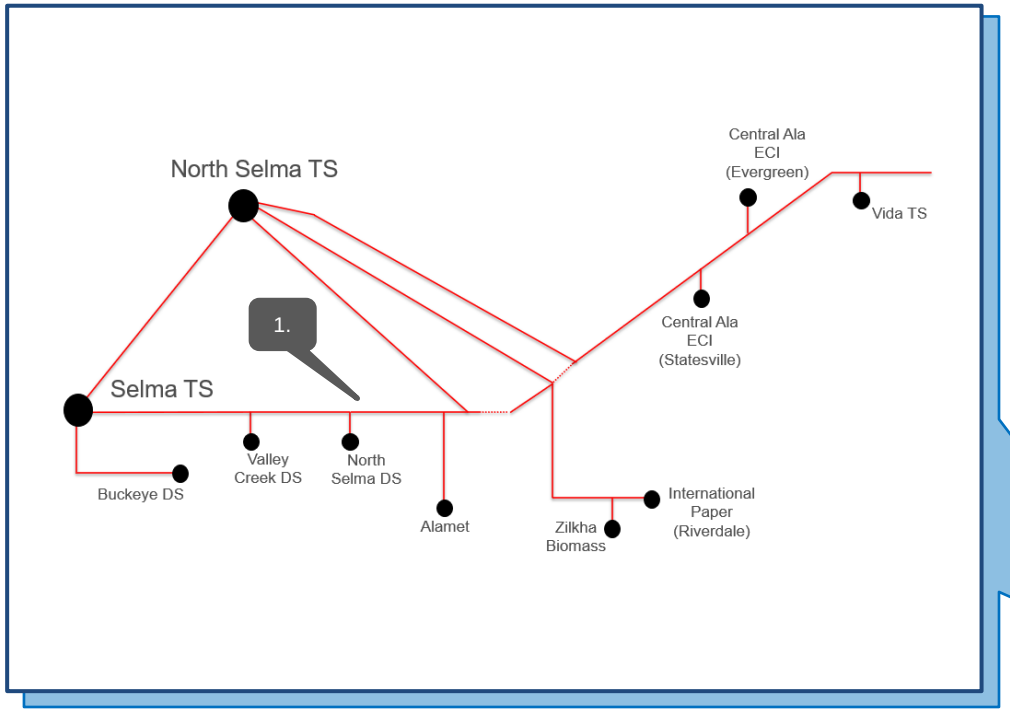


SOUTHERN Balancing Authority Area

SOUTHERN – 7W

- **2026**

NORTH SELMA – SELMA #2 115 KV TRANSMISSION LINE

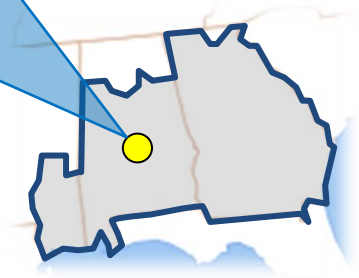


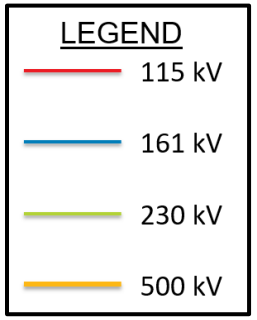
PROJECT DESCRIPTION:

1. Rebuild ~27 miles of 397 ACSR at 100°C of Selma TS – Vida TS 115 kV TL to 795 ACSS at 200°C

SUPPORTING STATEMENT:

- Provides additional operational and maintenance flexibility which then increases reliability.



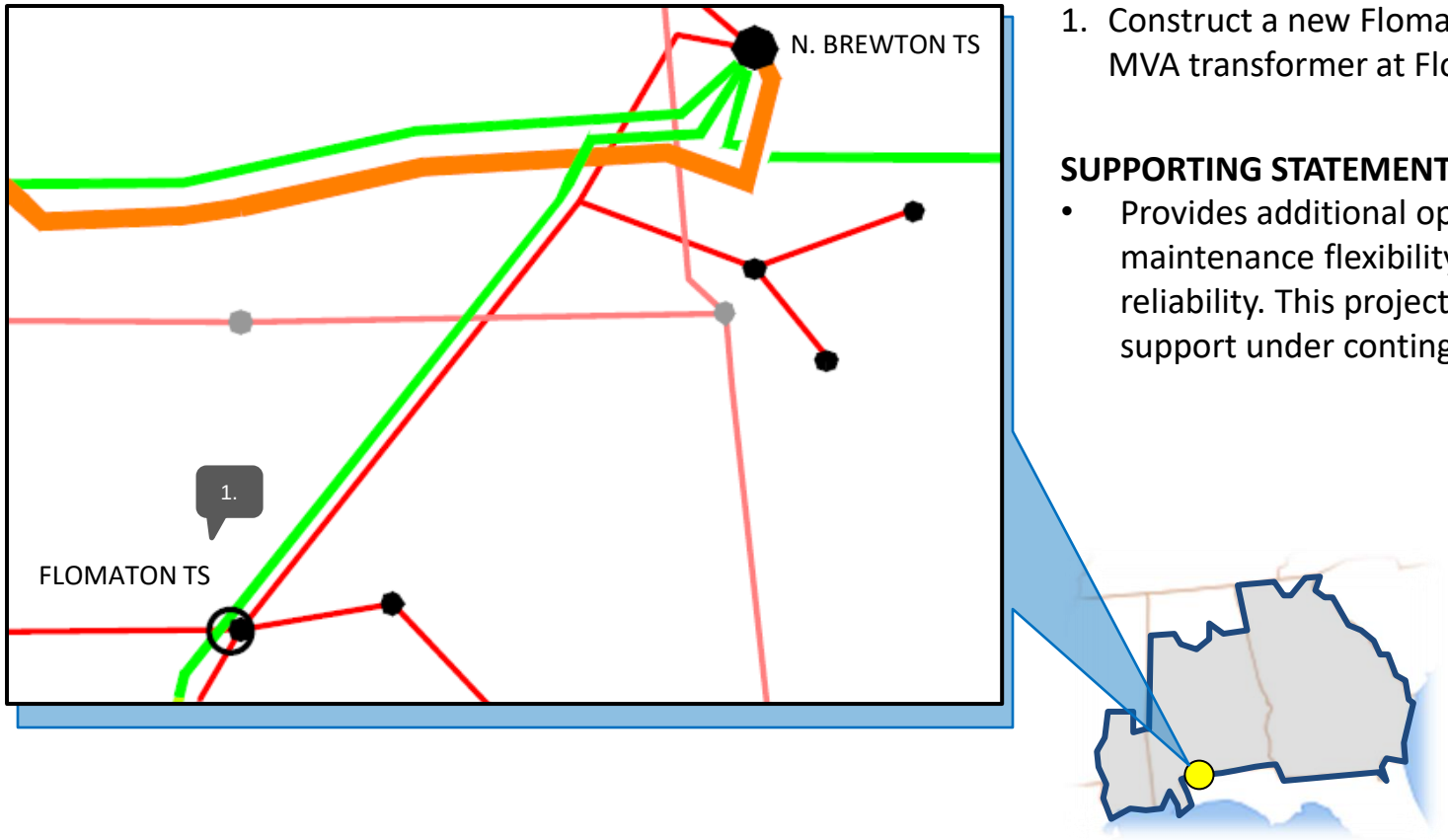


SOUTHERN Balancing Authority Area

SOUTHERN – 8W

- **2026**

FLOMATON 230/115 KV SUBSTATION



PROJECT DESCRIPTION:

1. Construct a new Flomaton 230/115 kV, 480 MVA transformer at Flomaton TS.

SUPPORTING STATEMENT:

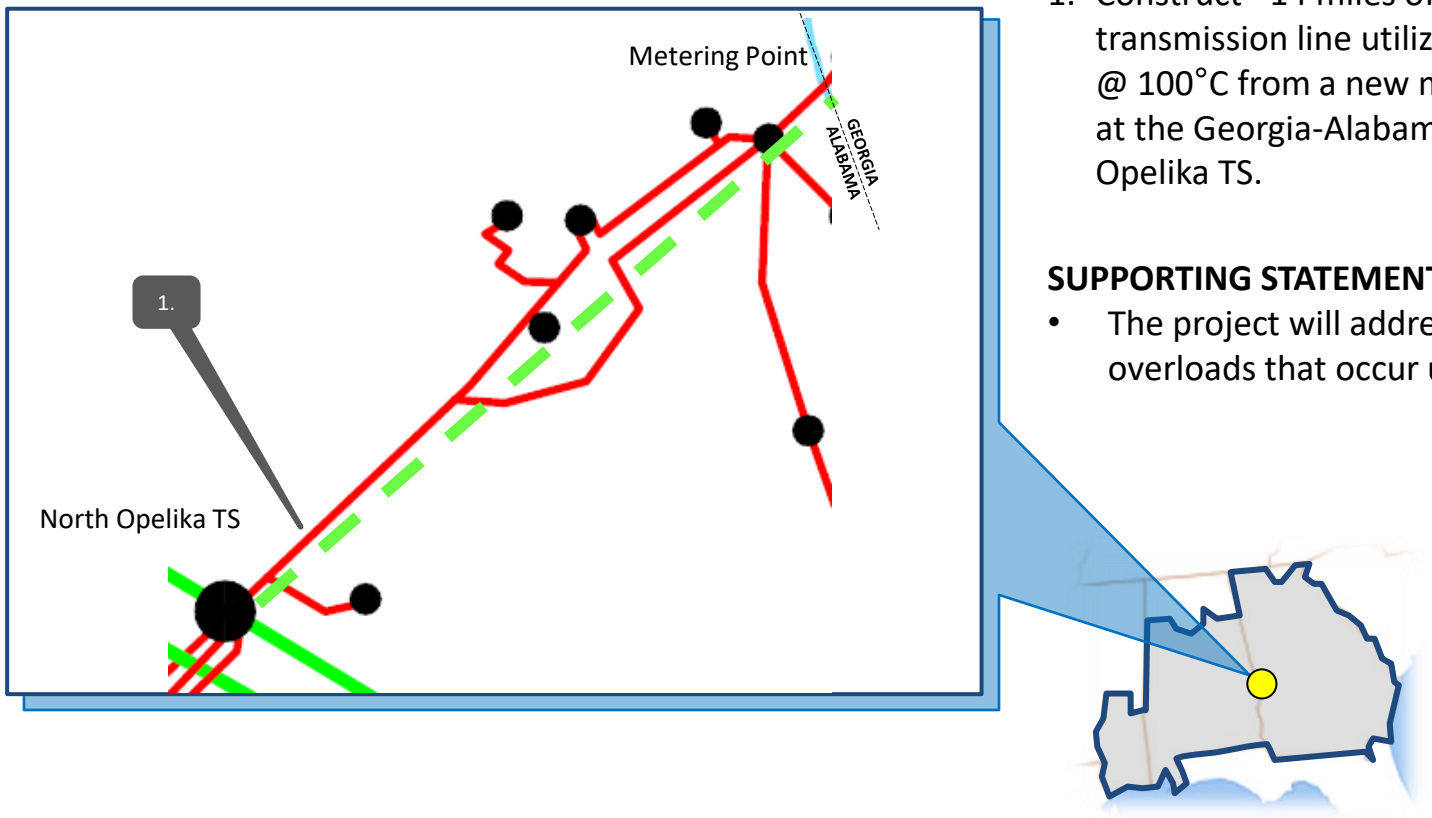
- Provides additional operational and maintenance flexibility which then increases reliability. This project also provides voltage support under contingency scenarios.

SOUTHERN Balancing Authority Area

SOUTHERN – 9W

• **2026**

LAGRANGE PRIMARY-NORTH OPELIKA NEW 230 KV TRANSMISSION LINE



PROJECT DESCRIPTION:

1. Construct ~14 miles of new 230 kV transmission line utilizing 1351 54/19 ACSR @ 100°C from a new metering point, located at the Georgia-Alabama border, to North Opelika TS.

SUPPORTING STATEMENT:

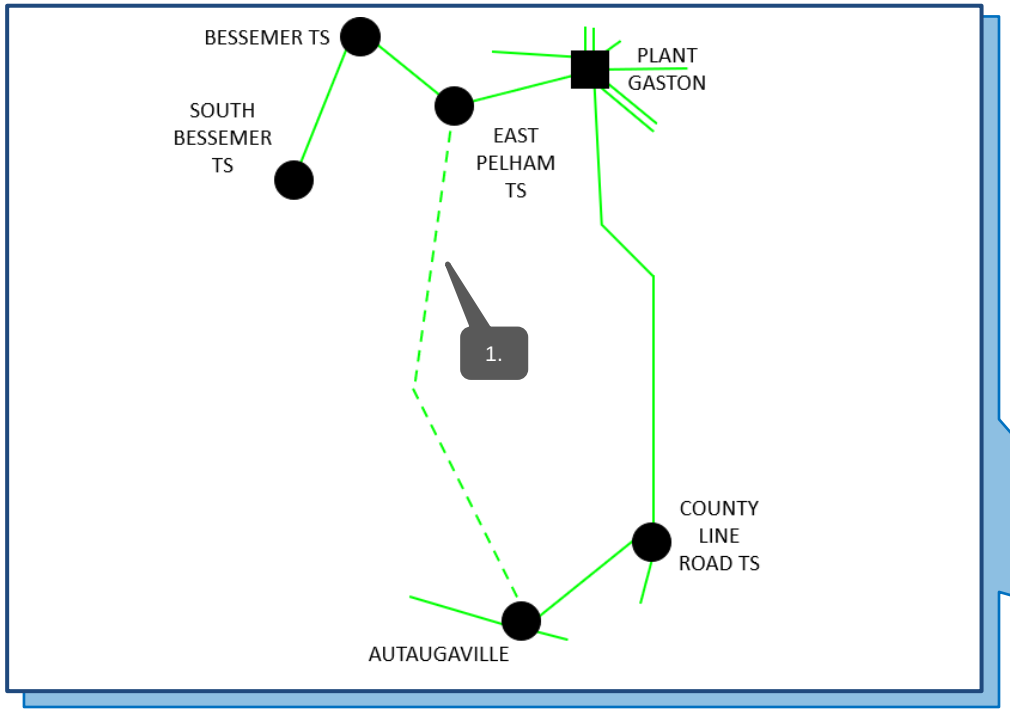
- The project will address multiple thermal overloads that occur under contingency.

SOUTHERN Balancing Authority Area

SOUTHERN – 10W

- **2027**

AUTAUGAVILLE – EAST PELHAM NEW 230 KV TRANSMISSION LINE

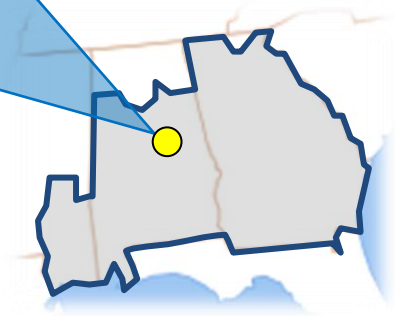


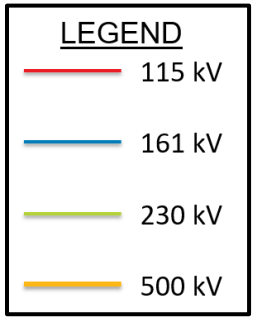
PROJECT DESCRIPTION:

1. Construct ~75 miles of new 230 kV transmission line bundled 795 26/7 ACSS from Autaugaville TS to East Pelham TS.

SUPPORTING STATEMENT:

- The Bessemer – South Bessemer 230 kV transmission line overloads under contingency. Reduces loadings on multiple 230 kV transmission lines and provides additional operational and maintenance flexibility, which increases reliability.



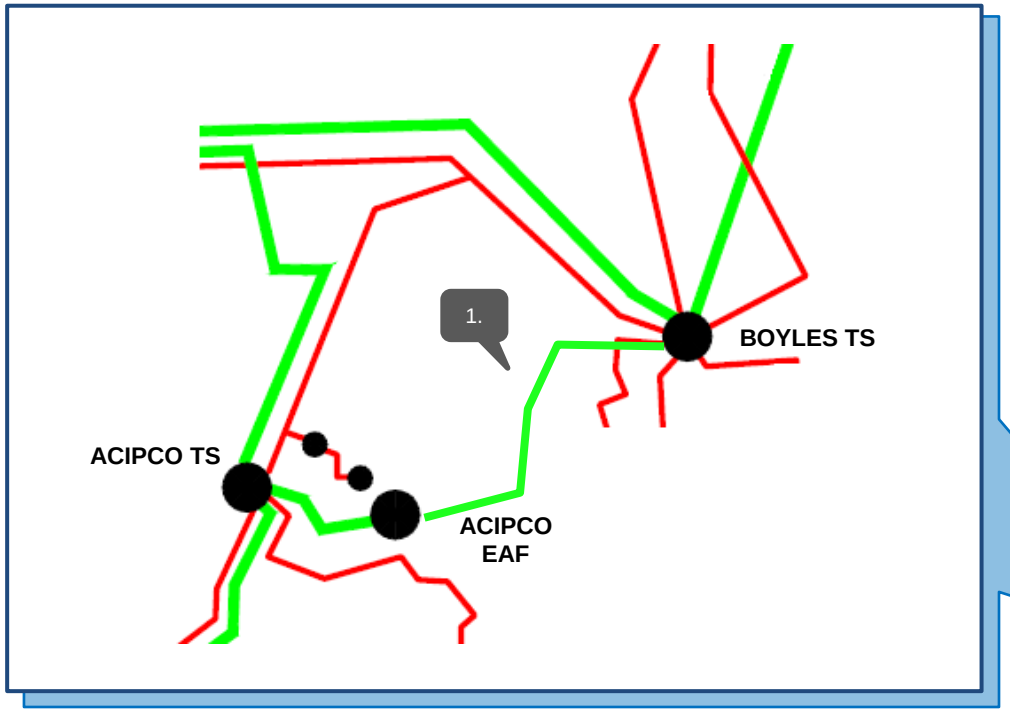


SOUTHERN Balancing Authority Area

SOUTHERN – 11W

- **2028**

ACIPCO EAF – BOYLES 230 KV NEW TRANSMISSION LINE

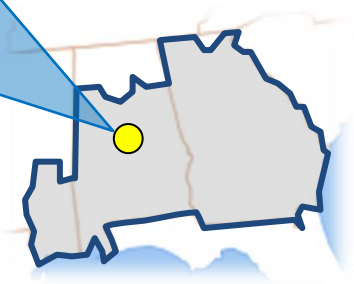


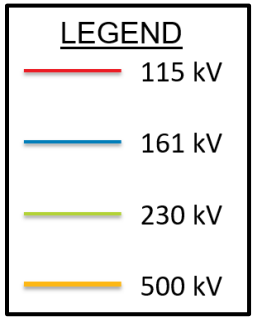
PROJECT DESCRIPTION:

1. Construct ~3 miles of 1351 54/19 ACSR at 100°C from ACIPCO EAF to Boyles TS. Reconductor ~1.8 miles from ACIPCO TS to ACIPCO EAF from 795 ACSR to 1351 ACSR.

SUPPORTING STATEMENT:

- The Boyles - Miller 230 kV transmission line overloads under contingency. Also provides additional operational and maintenance flexibility, which increases reliability.

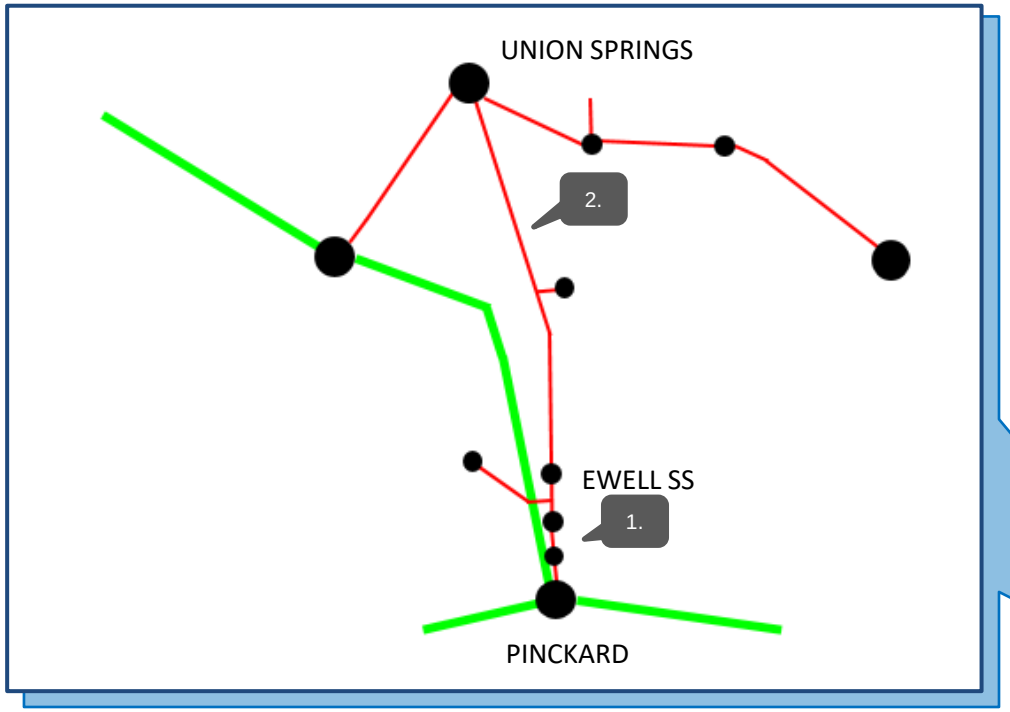




SOUTHERN – 12W

• **2030**

UNION SPRINGS - PINCKARD 115 KV TRANSMISSION LINE

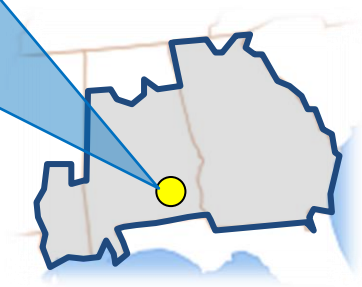


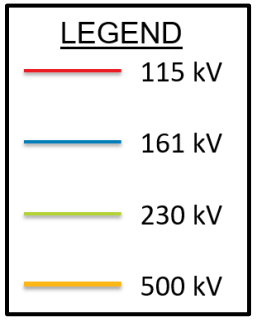
PROJECT DESCRIPTION:

1. Rebuild ~8.1 miles of 397 ACSR of the Pinckard – Ewell SS 115 kV TL from 397 ACSR at 49°C to 795 ACSR at 100°C
2. Reconductor ~50 miles of 397 ACSR at 50°C Union Springs – Ewell 115 kV TL to 795 ACSR at 100°C

SUPPORTING STATEMENT:

- The Union Springs - Pinckard 115 kV TL overloads under contingency. Provides additional operational and maintenance flexibility, which increases reliability.





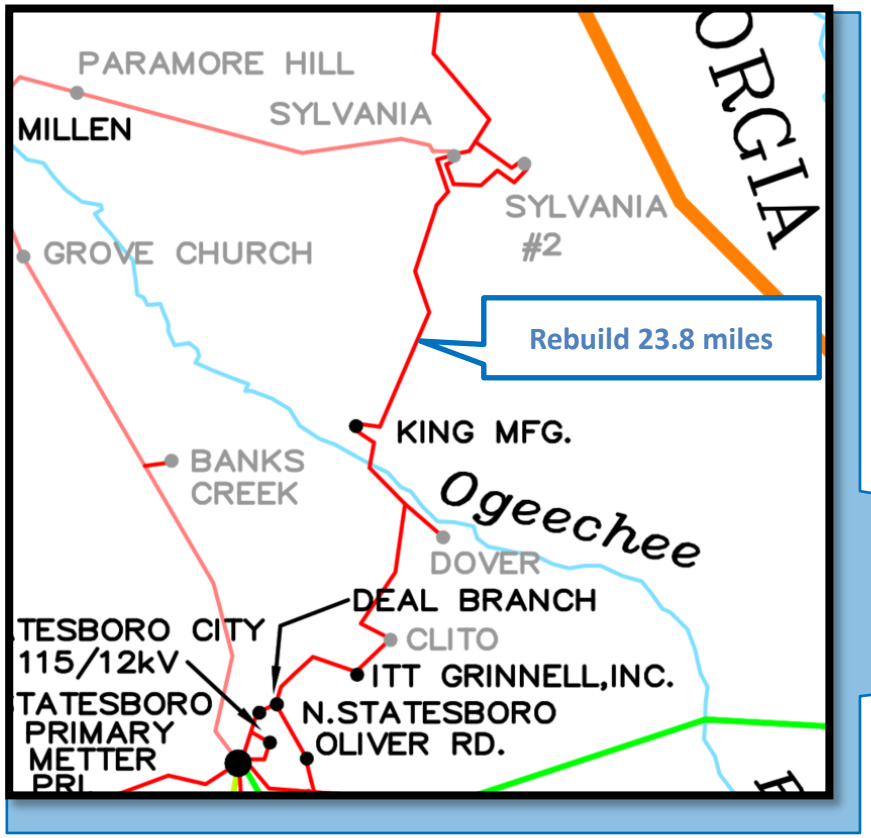
SOUTHERN (EAST) Balancing Authority Area

SERTP Regional Transmission Expansion Plan

SOUTHERN – 1E

- **2023**

DEAL BRANCH – SYLVANIA 115KV LINE REBUILD

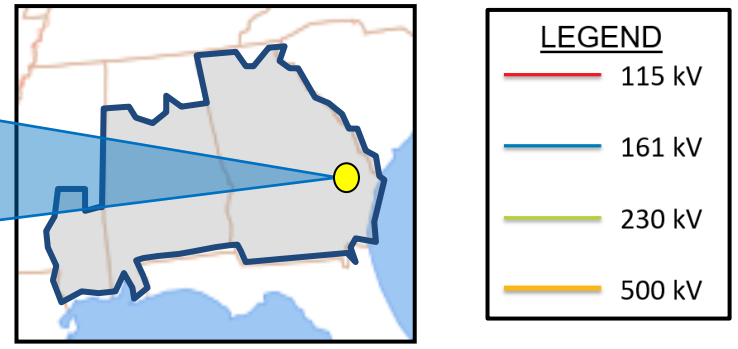


DESCRIPTION:

- Rebuild the 115kV line from the Deal Branch substation to the Sylvania substation (total 23.8 miles).

SUPPORTING STATEMENT:

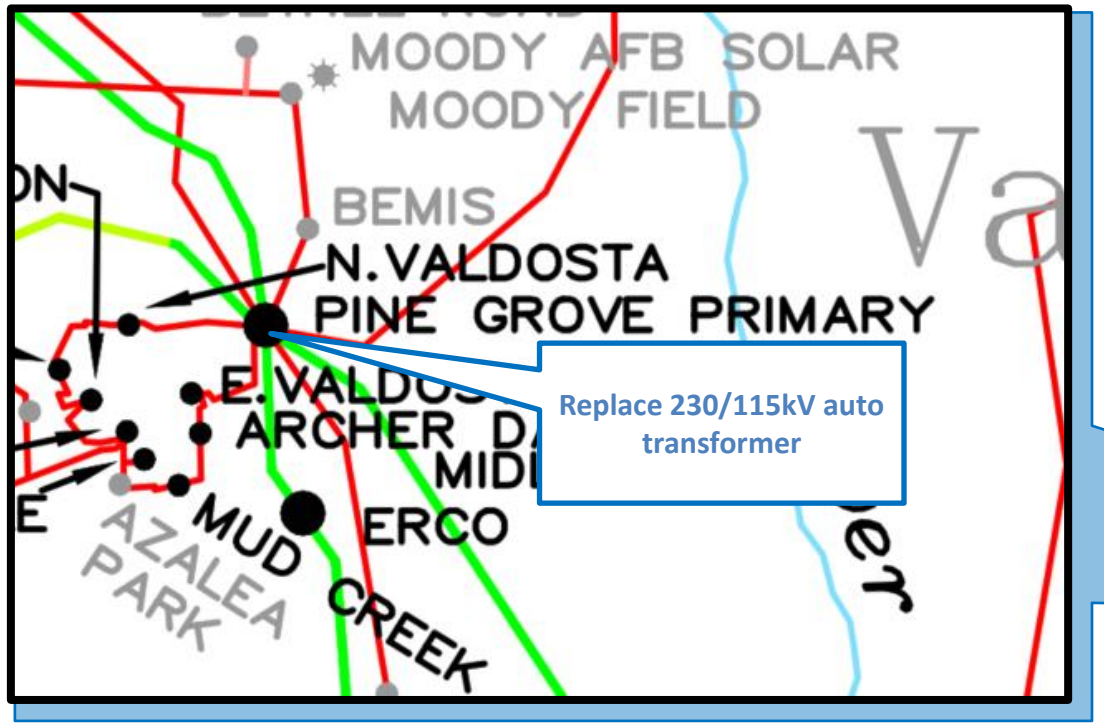
- The Deal Branch – Sylvania 115kV line overloads under contingency.



SOUTHERN – 2E

- **2024**

PINE GROVE PRIMARY BANK B REPLACEMENT

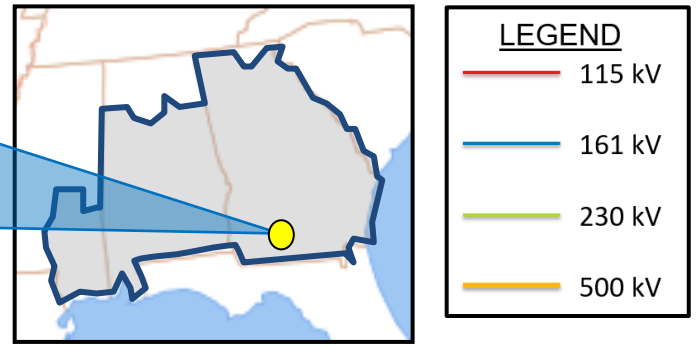


DESCRIPTION:

- Replace 230/115kV Bank B with a 400 MVA auto transformer.

SUPPORTING STATEMENT:

- The project addresses loading on the Pine Grove 230/115kV auto-transformer due to the new 161kV transmission line between Gulf and FPL.

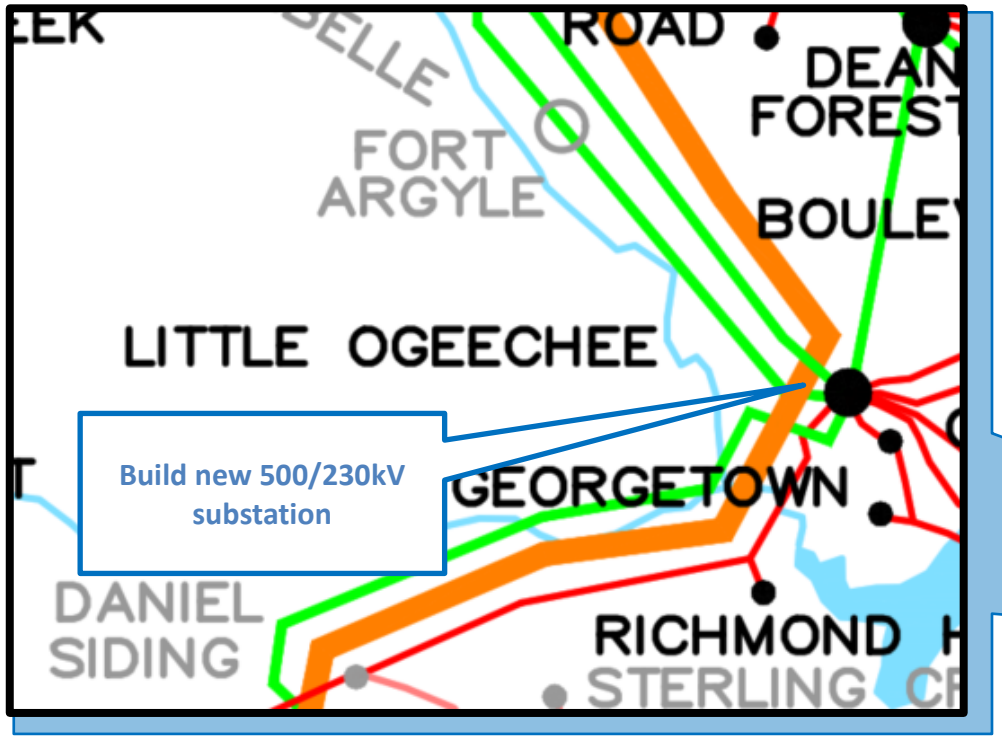


SOUTHERN Balancing Authority Area

SOUTHERN – 3E

- **2025**

BIG OGEECHEE 500/230KV SUBSTATION

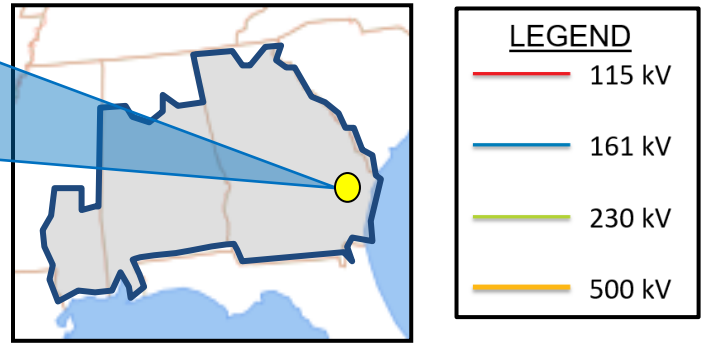


DESCRIPTION:

- Construct a new 500/230kV substation near Little Ogeechee. The new substation will loop in the existing McCall Road-Thalmann 500kV line and the existing Little Ogeechee - Meldrim 230kV lines. It will accommodate a new 500/230kV auto transformer and an additional 230kV connection to Little Ogeechee.

SUPPORTING STATEMENT:

- The West McIntosh 500/230kV autotransformers A and B overload under contingency.

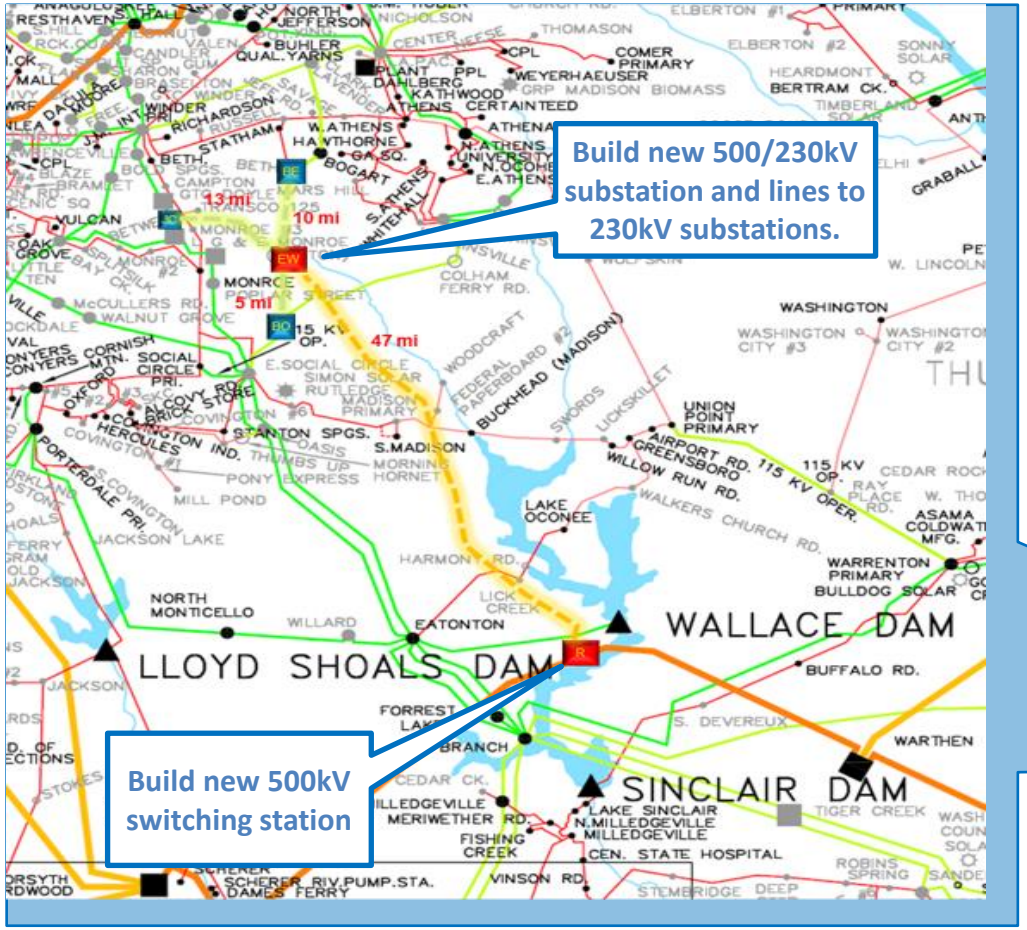


SOUTHERN Balancing Authority Area

SOUTHERN – 4E

- **2026**

EAST WALTON 500/230KV

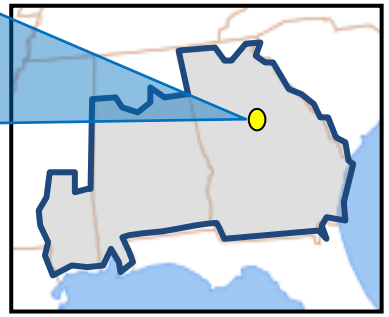


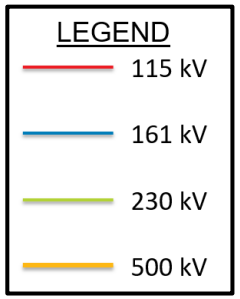
DESCRIPTION:

- GPC/GTC: Construct the Rockville 500kV switching station looping the Scherer - Warthen 500kV. Construct the East Walton 500/230kV substation and build the East Walton - Rockville 500kV line.
- GTC: Construct the Bostwick 230kV switching station and loop the East Social Circle - East Watkinsville 230kV line.
- MEAG/GPC/GTC: Construct the Jack's Creek 230kV switching station and loop the Doyle - LG&E Monroe 230kV line.
- GTC/MEAG: Construct 230kV lines from East Walton to Bethabara, Bostwick and Jack's Creek substations

SUPPORTING STATEMENT:

- The project will address multiple thermal overloads that occur under contingency.



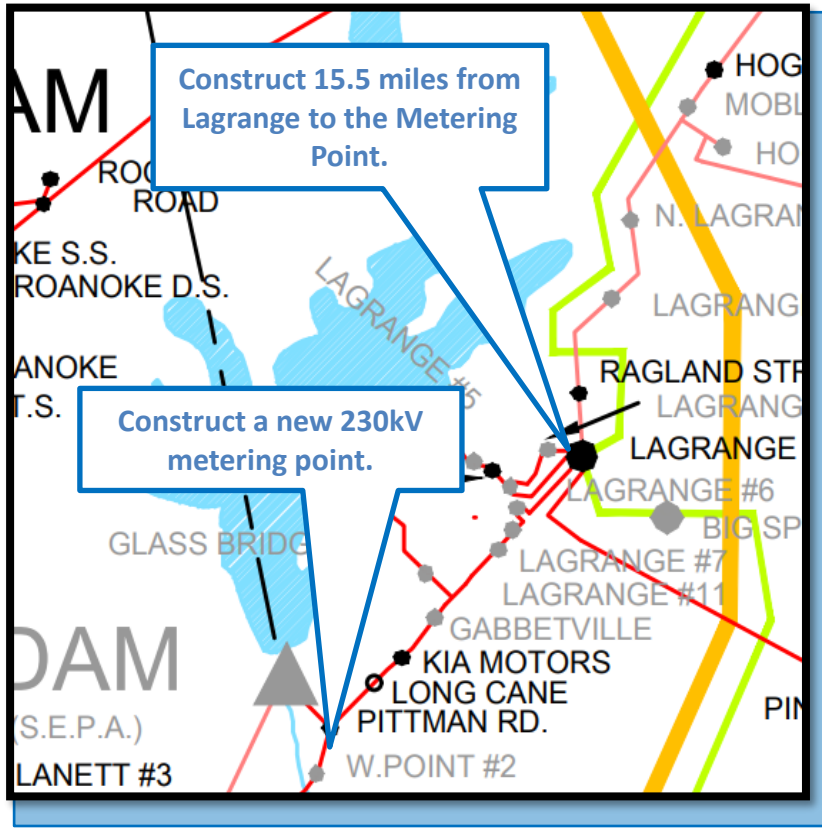


SOUTHERN Balancing Authority Area

SOUTHERN – 5E

• **2026**

GTC: LAGRANGE PRIMARY-NORTH OPELIKA 230KV

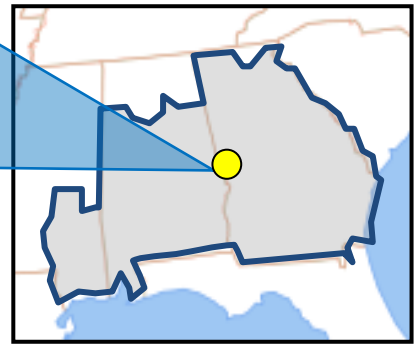


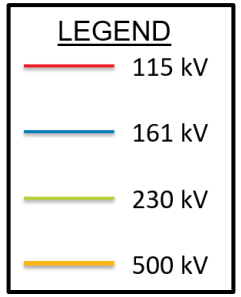
DESCRIPTION:

- GTC: Construct the 230kV line (15.5 miles) from Lagrange Primary to the Metering Point located at the Georgia-Alabama state line.
- ITS Assigned: Construct a metering point near the Georgia-Alabama state line.
- GPC: Extend the 230kV bus at Lagrange Primary.

SUPPORTING STATEMENT:

- The project will address multiple thermal overloads that occur under contingency.



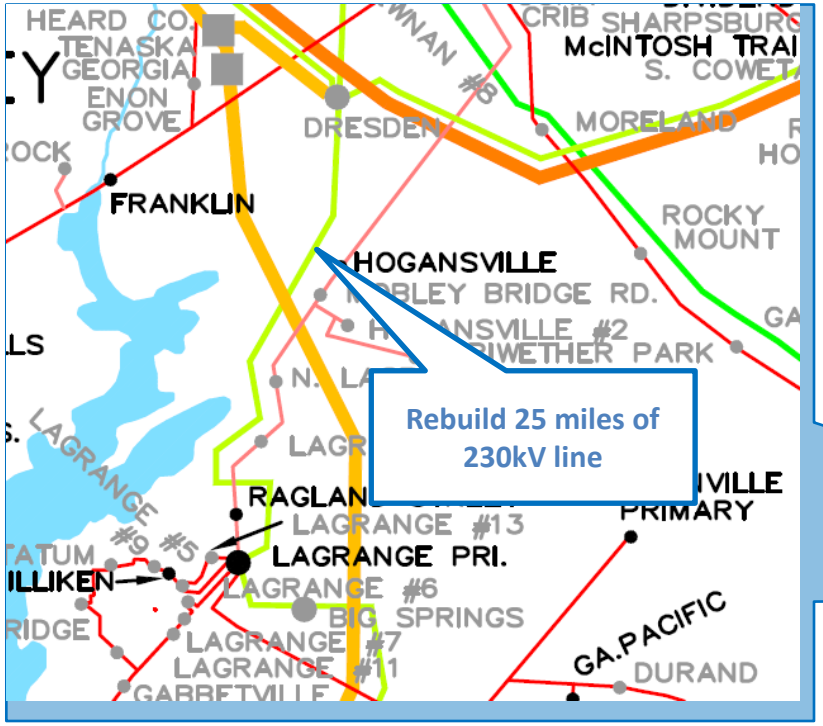


SOUTHERN Balancing Authority Area

SOUTHERN – 6E

- **2026**

MEAG: DRESDEN – LAGRANGE PRIMARY 230KV LINE REBUILD

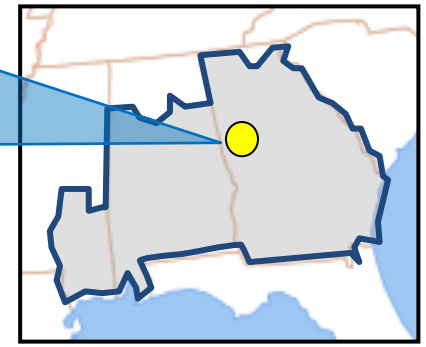


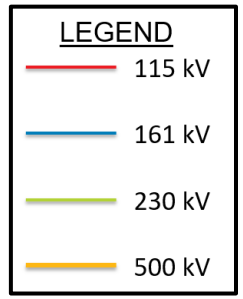
DESCRIPTION:

- Rebuild the entire Dresden - Lagrange Primary 230kV line (25.2 miles). Replace jumpers at Dresden and Lagrange ends of the line with higher rated jumpers.

SUPPORTING STATEMENT:

- The Dresden – Lagrange Primary 230kV line overloads under contingency.

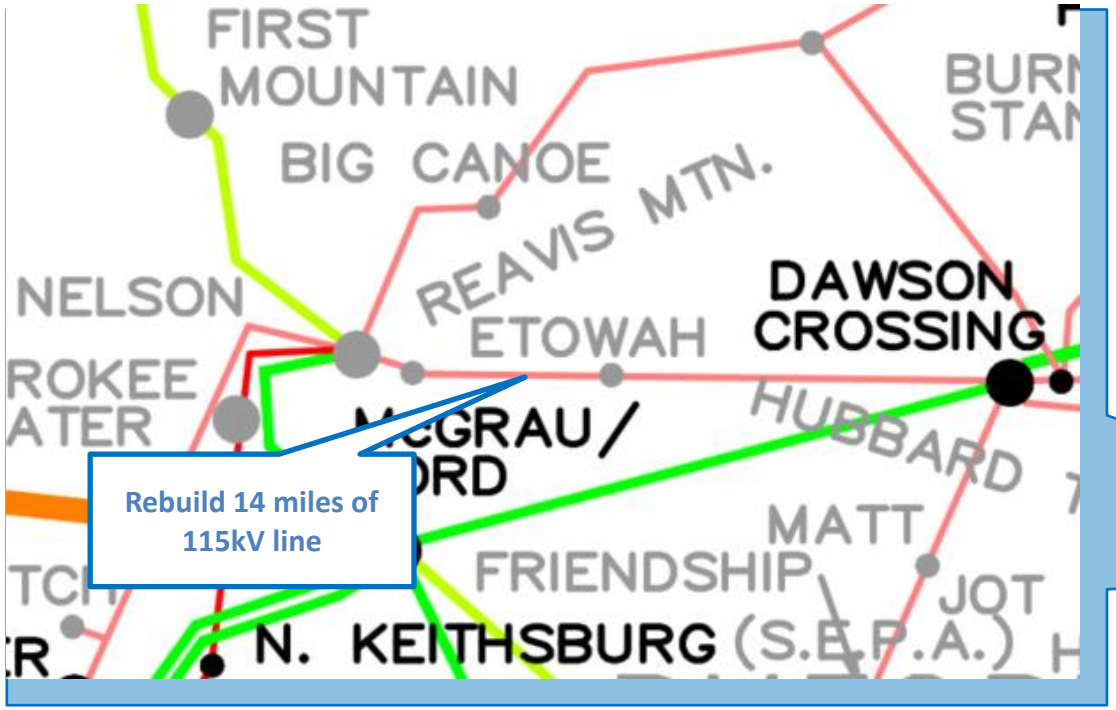




SOUTHERN – 7E

- **2026**

DAWSON CROSSING – NELSON (WHITE) 115KV REBUILD

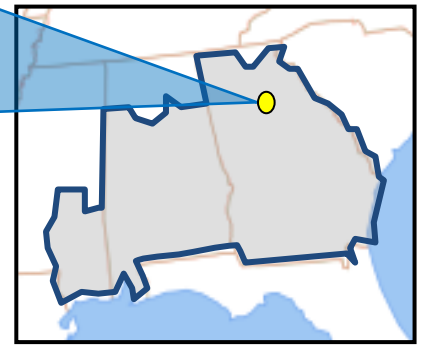


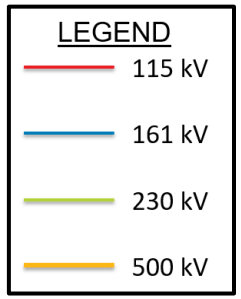
DESCRIPTION:

- Rebuild of a 14 miles of the Dawson Crossing - Nelson (White) 115kV line from Dawson Crossing - Reavis Mountain.

SUPPORTING STATEMENT:

- The Dawson Crossing - Etowah and Etowah - Reavis Mountain sections of the Dawson Crossing - Nelson (White) 115kV line overload under contingency.

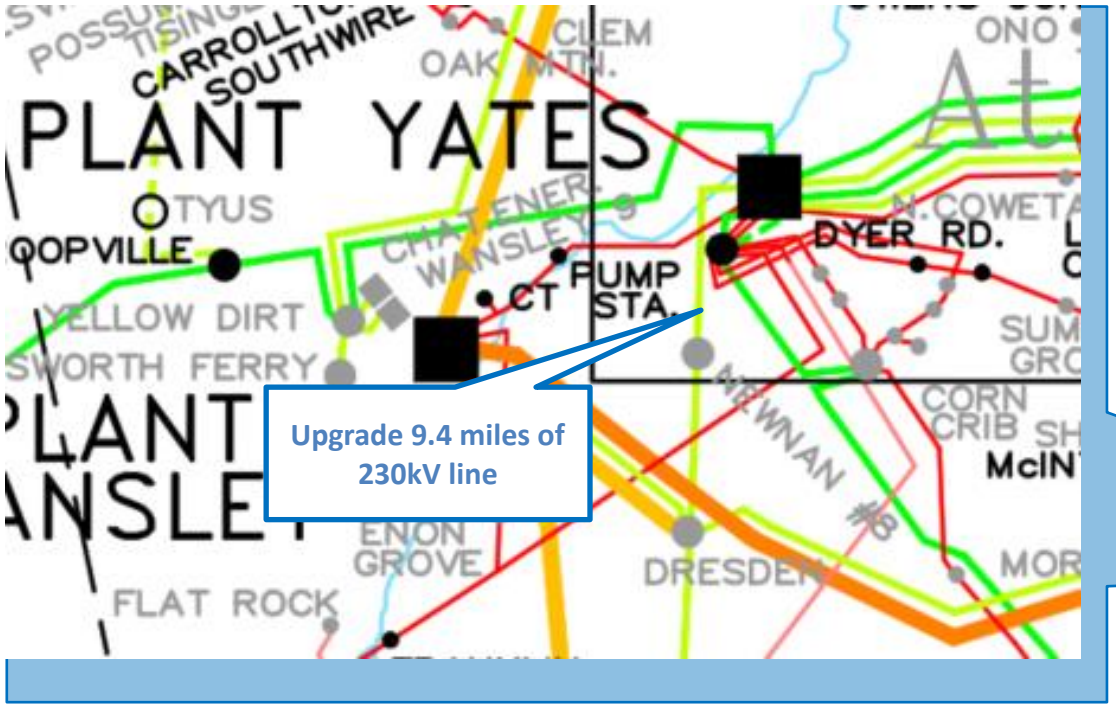




SOUTHERN – 8E

- **2027**

MEAG: DRESDEN – YATES 230KV LINE UPGRADE

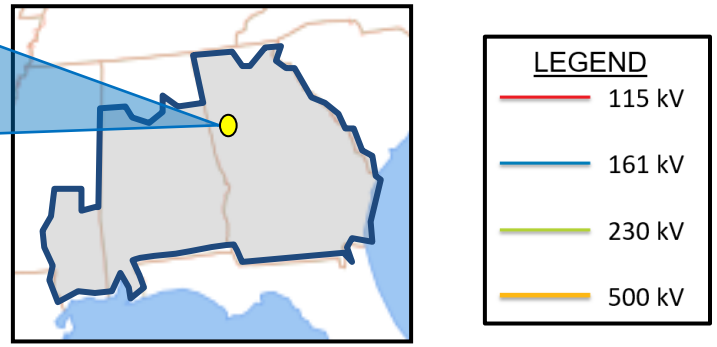


DESCRIPTION:

- Upgrade the line conductor. Replace jumpers at Dresden, Newnan #8 and Yates on the Dresden - Yates 230kV line with higher rated jumpers. Replace limiting switches at Yates and Newnan #8.

SUPPORTING STATEMENT:

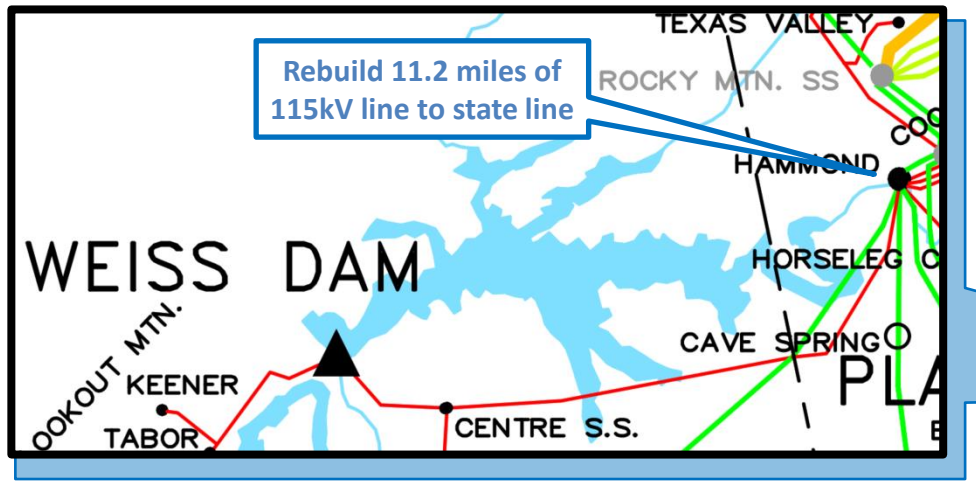
- The Dresden - Yates 230kV line overloads under contingency.



SOUTHERN – 9E

- **2028**

HAMMOND – WEISS DAM 115KV LINE REBUILD

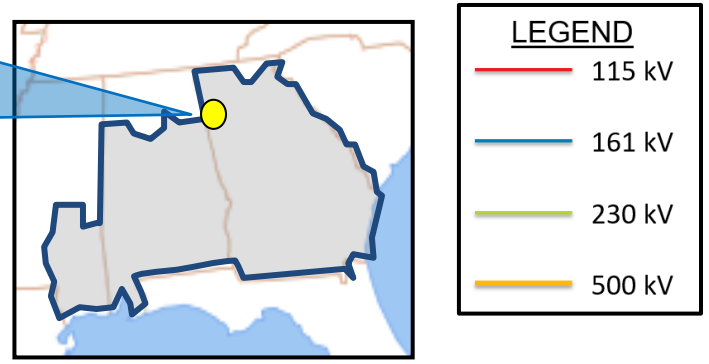


DESCRIPTION:

- Rebuild the line conductor from Hammond to state line (11.2 miles) with 100°C 795 ACSR.

SUPPORTING STATEMENT:

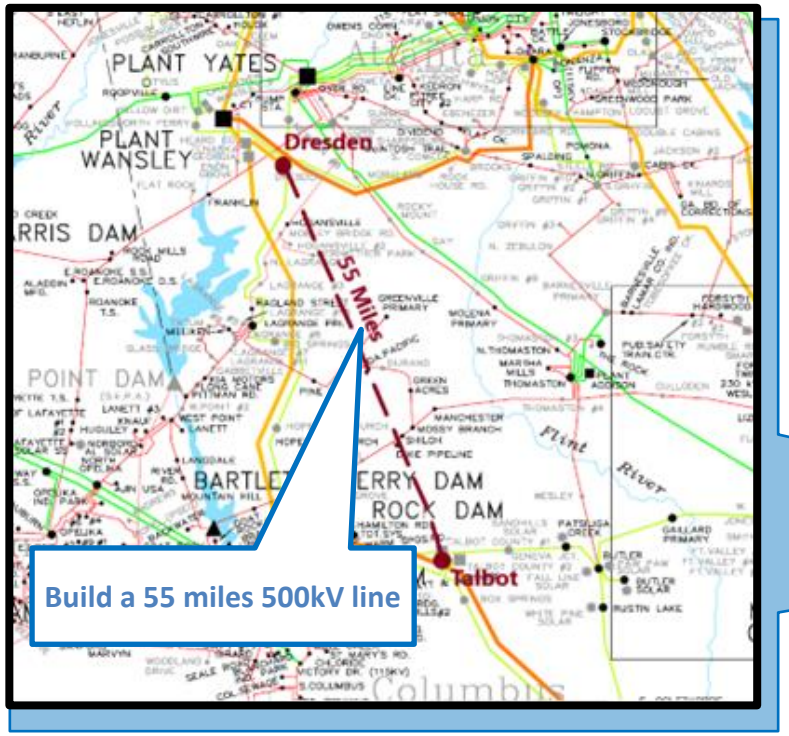
- The Hammond – Weiss Dam 115kV line overloads under contingency.



SOUTHERN – 10E

- **2029**

GTC: DRESDEN – TALBOT 500KV LINE

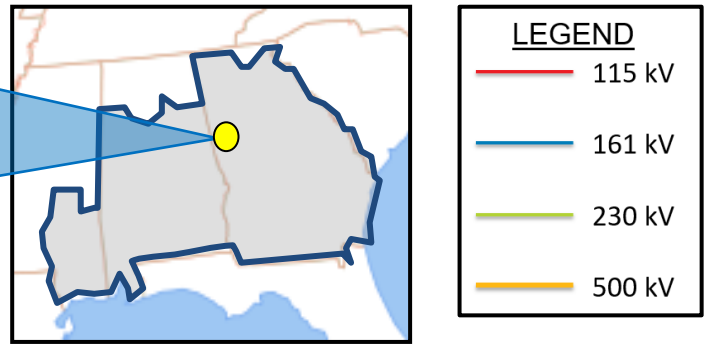


DESCRIPTION:

- Build the new Talbot 500/230kV substation.
- Build a 500kV line from the Talbot substation to Dresden.

SUPPORTING STATEMENT:

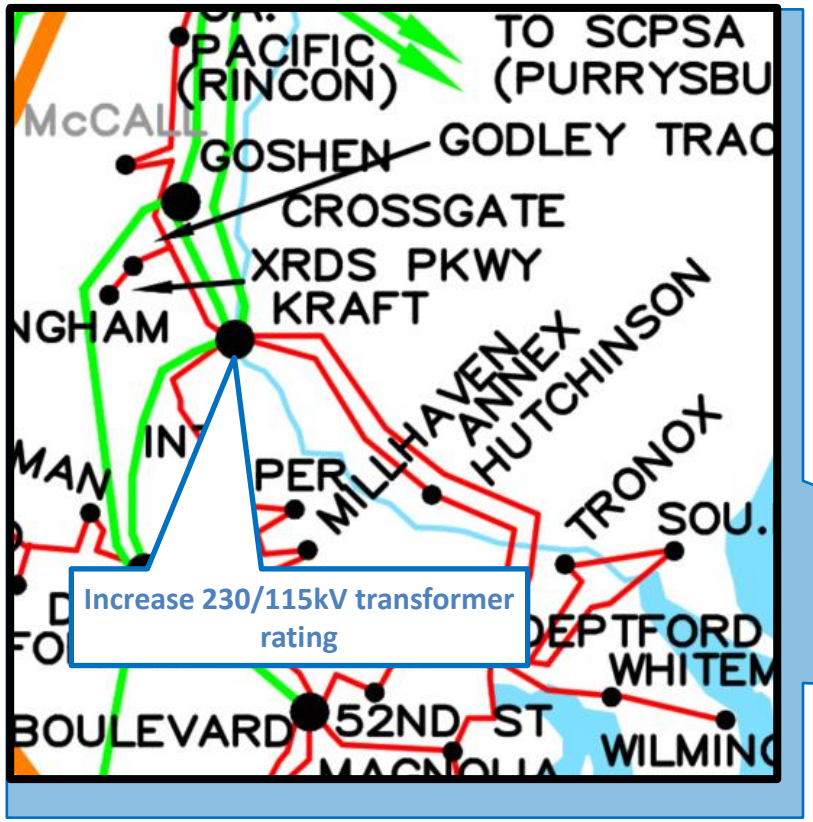
- The project will address multiple thermal overloads that occur under contingency.



SOUTHERN – 11E

- **2029**

KRAFT 230/115KV TRANSFORMER RATING INCREASE

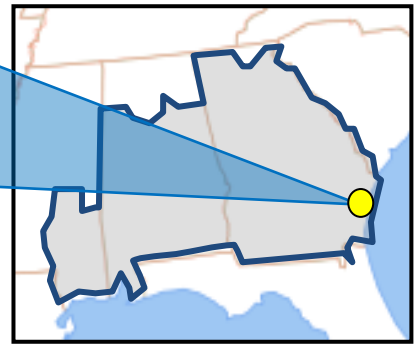


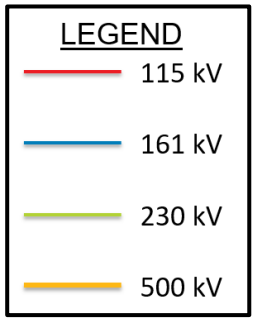
DESCRIPTION:

- Replace the 230kV underground cable that connects the 230/115kV Bank B, with a higher rated conductor

SUPPORTING STATEMENT:

- Kraft 230/115kV autotransformer B loads above its rating.

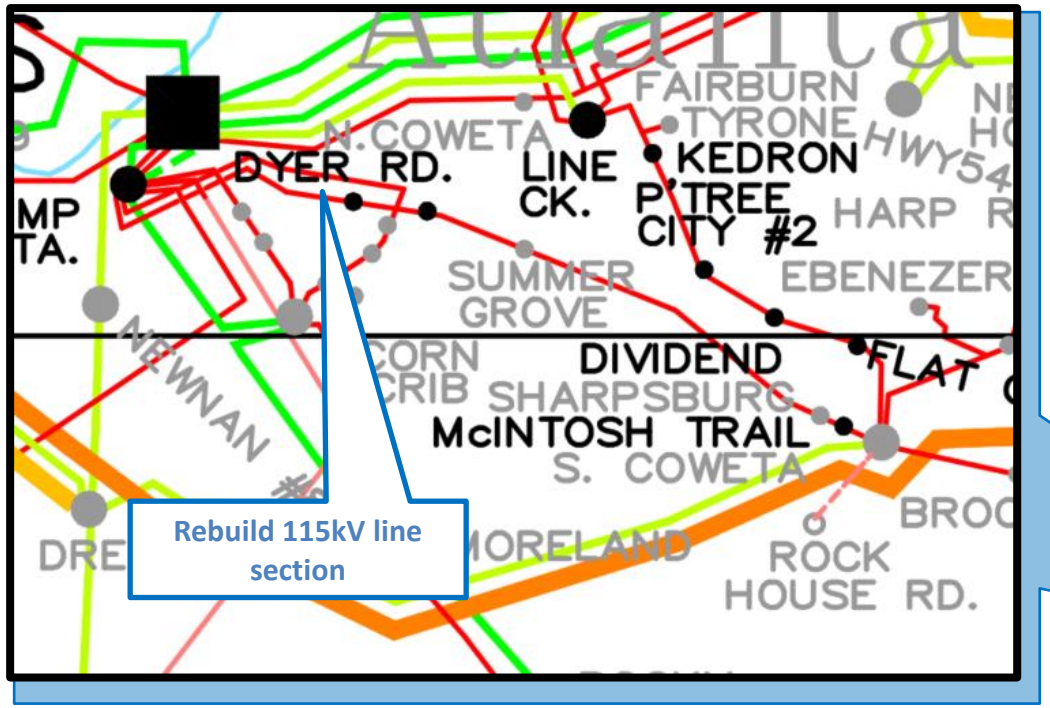




SOUTHERN – 12E

- **2030**

DYER ROAD – SOUTH COWETA 115KV LINE REBUILD

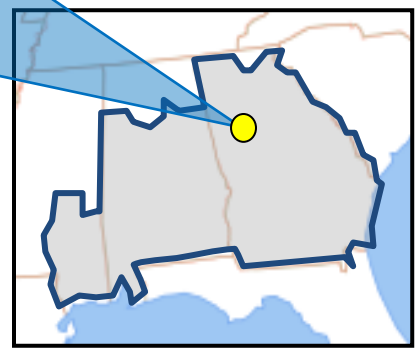


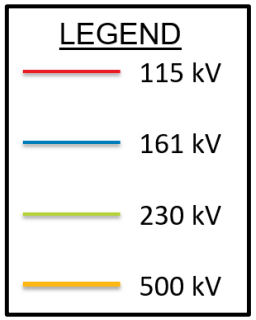
DESCRIPTION:

- Rebuild the Dyer Road - Madras 115kV line section. Replace limiting jumpers at Dyer Road and Madras with higher rated jumpers. Replace limiting switch at Madras with higher rated switch.

SUPPORTING STATEMENT:

- Dyer Road - South Coweta 115kV line (Dyer Road - Madras section) overloads under contingency.

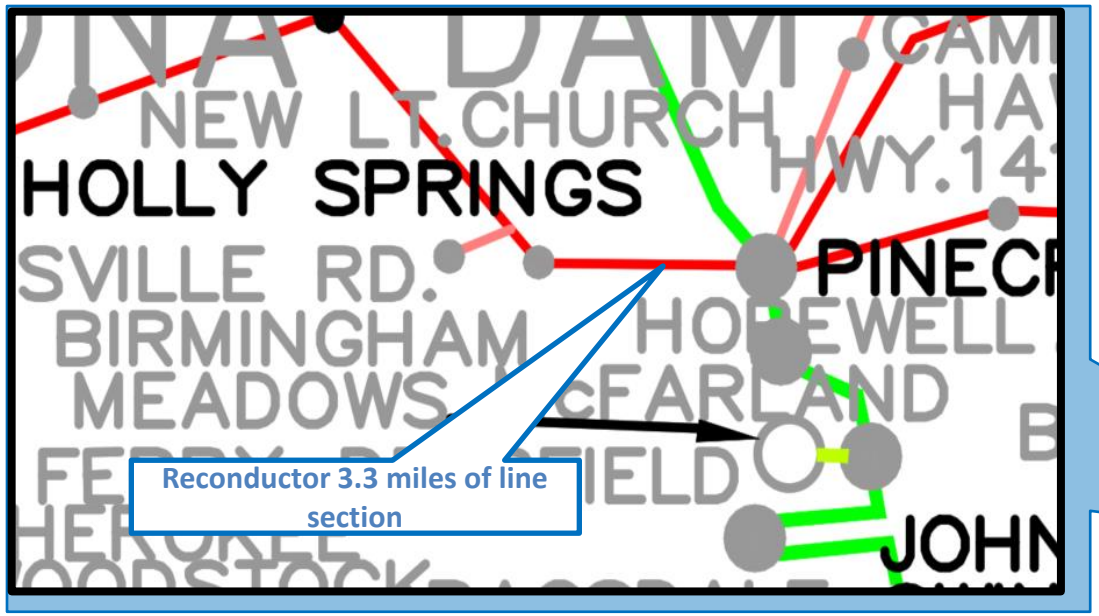




SOUTHERN – 13E

- **2031**

AVERY – HOPEWELL 115KV LINE RECONDUCTOR

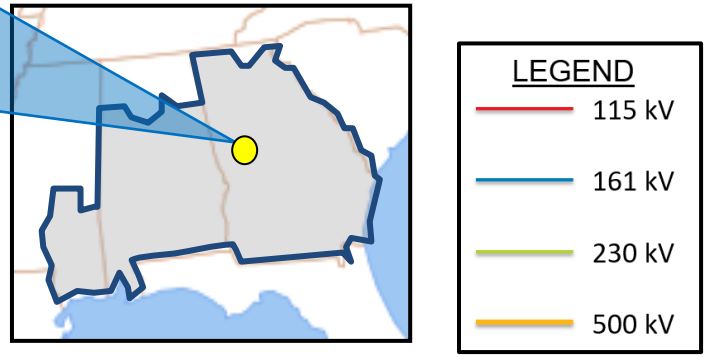


DESCRIPTION:

- Reconductor approximately 3.3 miles of line from Hopewell to Birmingham and upgrade limiting elements along the line.

SUPPORTING STATEMENT:

- The Hopewell to Birmingham section of line overloads under contingency.

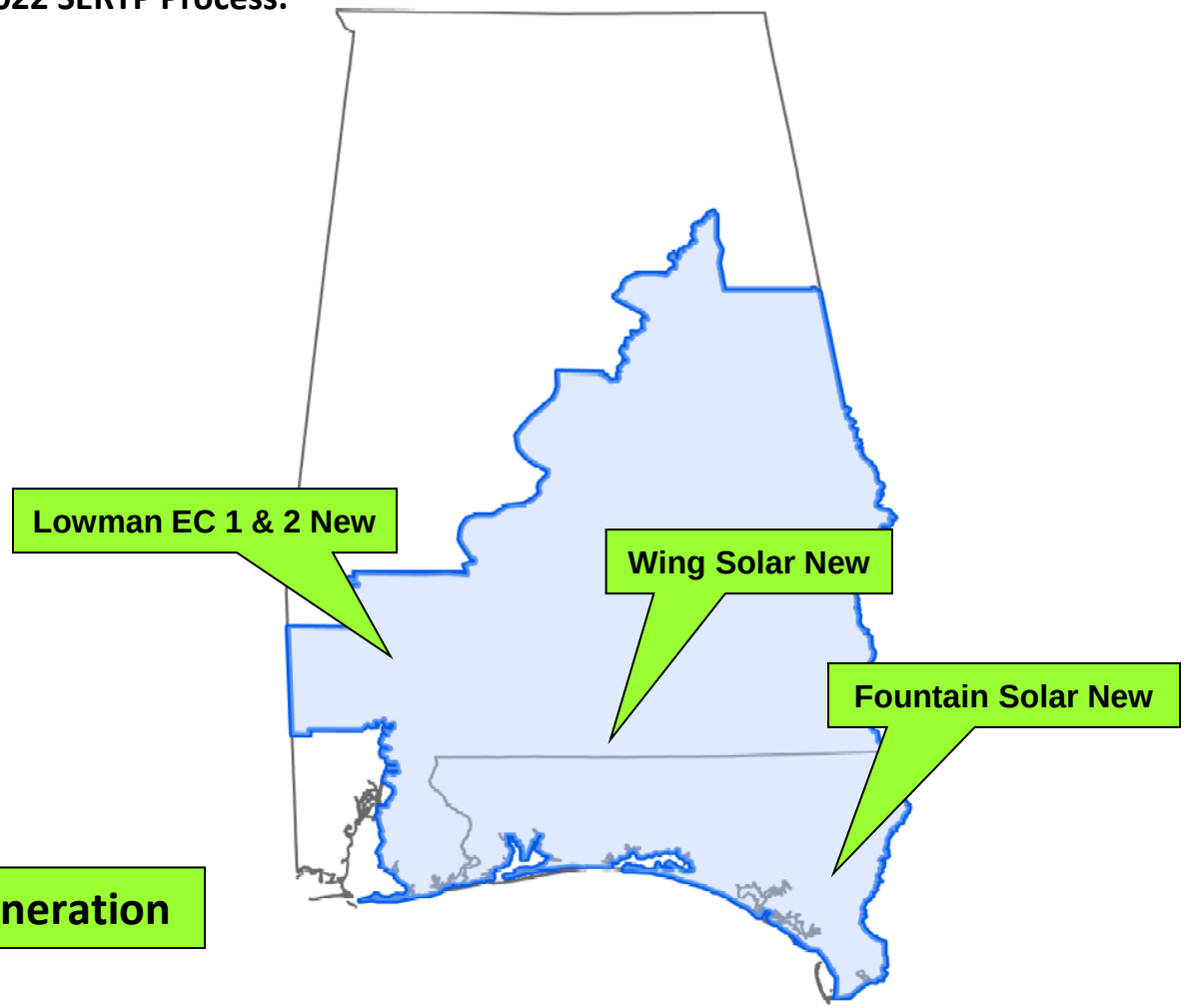


POWERSOUTH Planning Authority Area

Generation Assumptions

POWERSOUTH – Generation Assumptions

The following diagram depicts the location of generation assumptions that change throughout the ten year planning horizon for the 2022 SERTP Process.



POWERSOUTH – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2022 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Lowman EC 1 & 2	Gas	--	632	632	632	632	632	632	632	632	632
Wing	Solar	--	80	80	80	80	80	80	80	80	80
Fountain	Solar	--	--	--	80	80	80	80	80	80	80

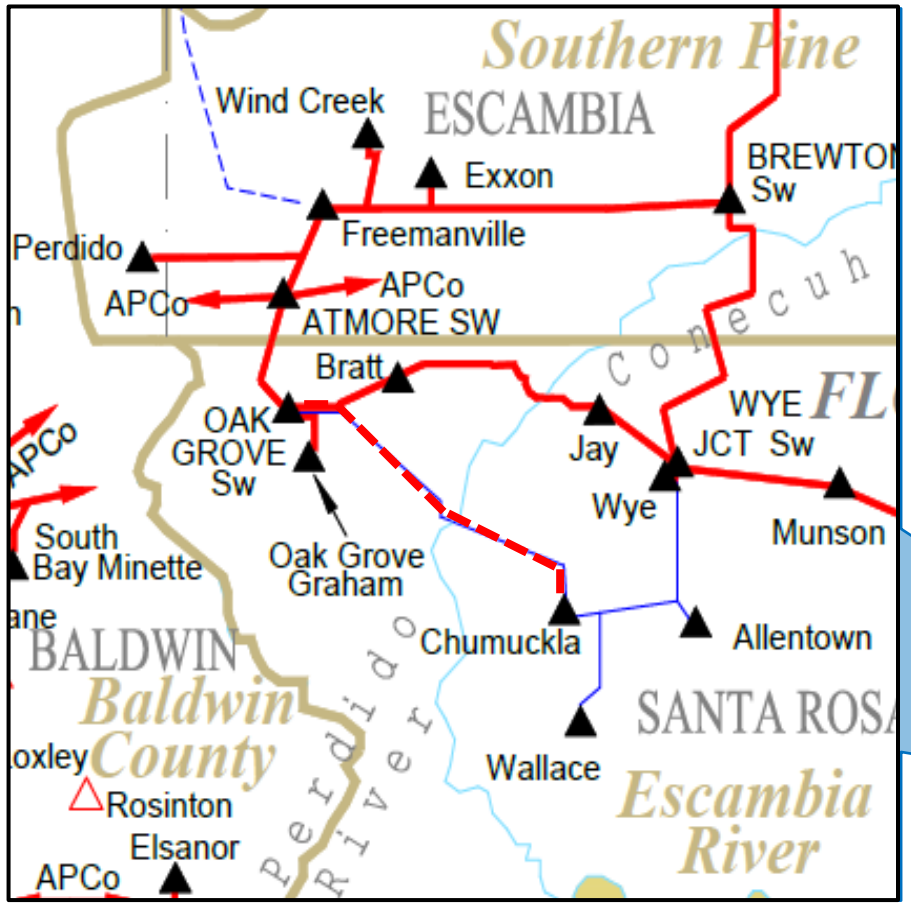
POWERSOUTH Planning Authority Area

Preliminary Transmission Expansion Plan

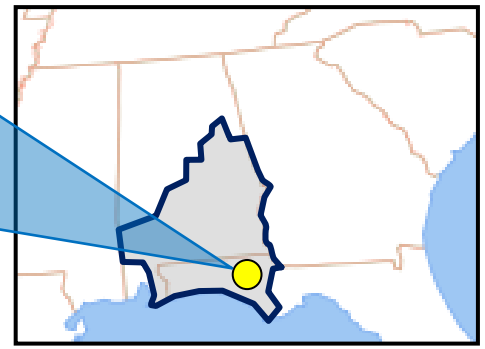
POWERSOUTH - 1

- **2024**

Oak Grove – Chumuckla 115 KV Transmission Line



- **DESCRIPTION:**
  - Construct a new 115 kV transmission line from Oak Grove Switching Station to Chumuckla Substation which will replace the existing 46kV transmission line.
- **SUPPORTING STATEMENT:**
  - Load growth in the area has exceeded the capacity of that which can be supported by the existing 46kV facilities.

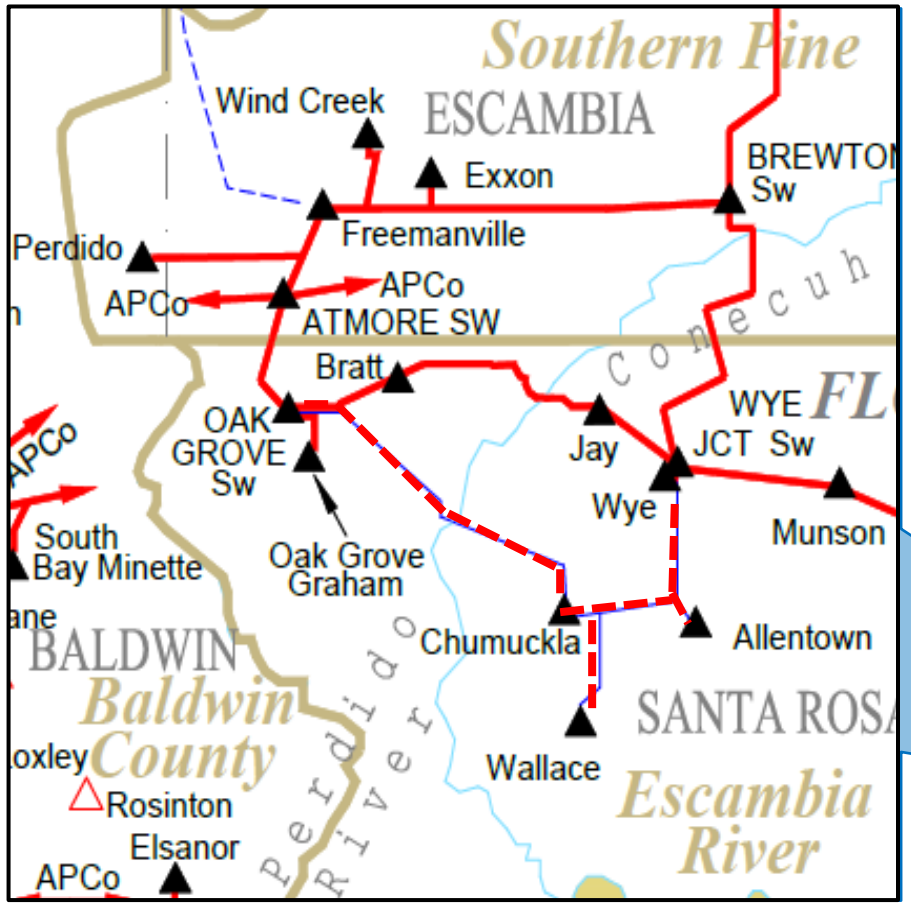


POWERSOUTH Planning Authority Area

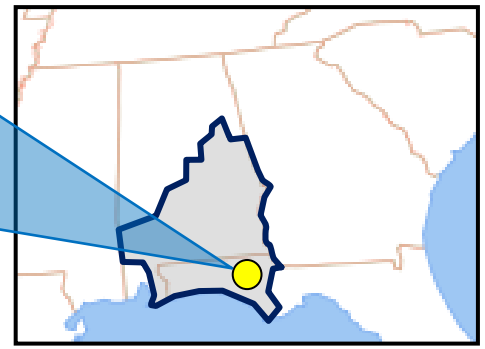
POWERSOUTH - 2

• **2025**

EREC 115 KV Conversion



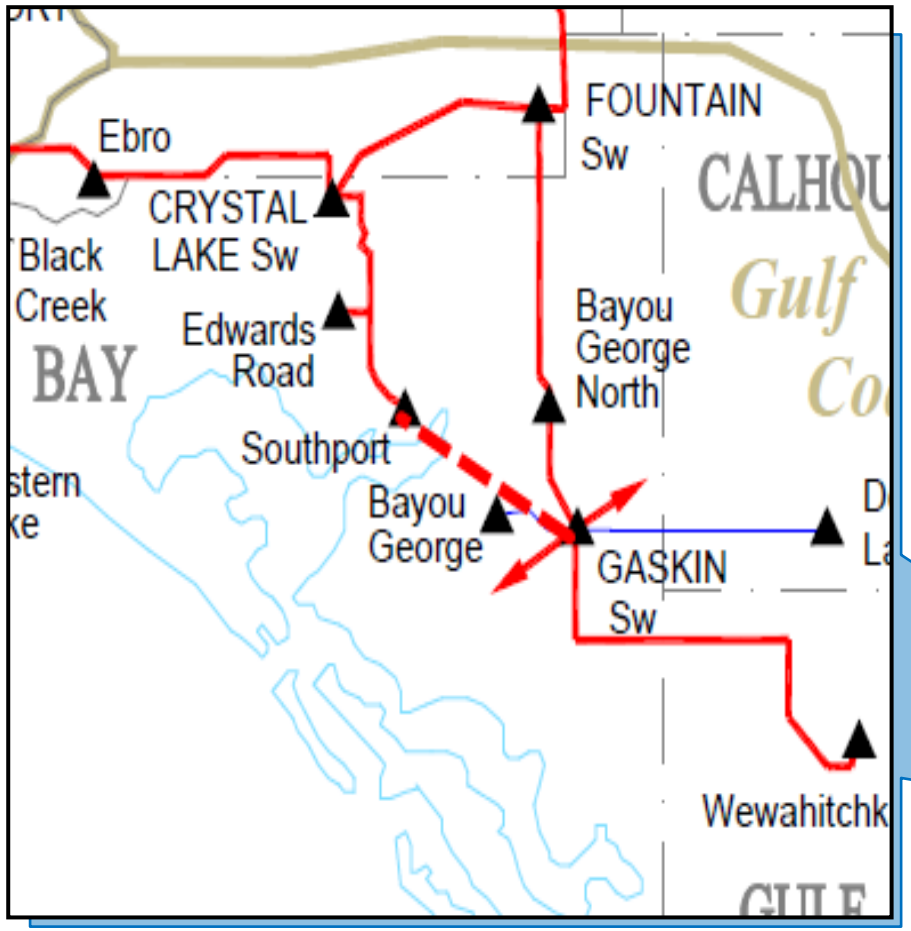
- **DESCRIPTION:**
  - Convert 21.36 miles of 46 kV transmission line and 3 distribution stations to 115kV service.
- **SUPPORTING STATEMENT:**
  - Load growth in the area has exceeded the capacity of that which can be supported by the existing 46kV facilities.
  - Provide networked service to area delivery points that are currently served radially



POWERSOUTH - 3

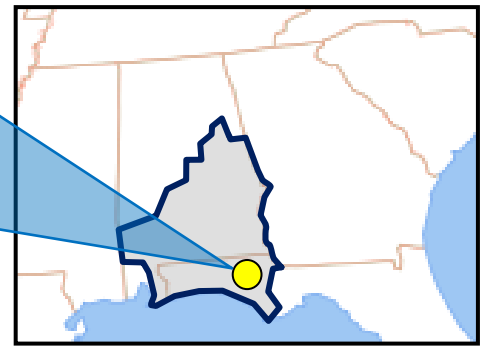
- **2025**

Gaskin – Southport 115 KV Transmission Line



- **DESCRIPTION:**
  - Construct approximately 9.0 miles of new 115 kV transmission line from Gaskin Switching Station to Southport Substation with 795 ACSR at 100°C.

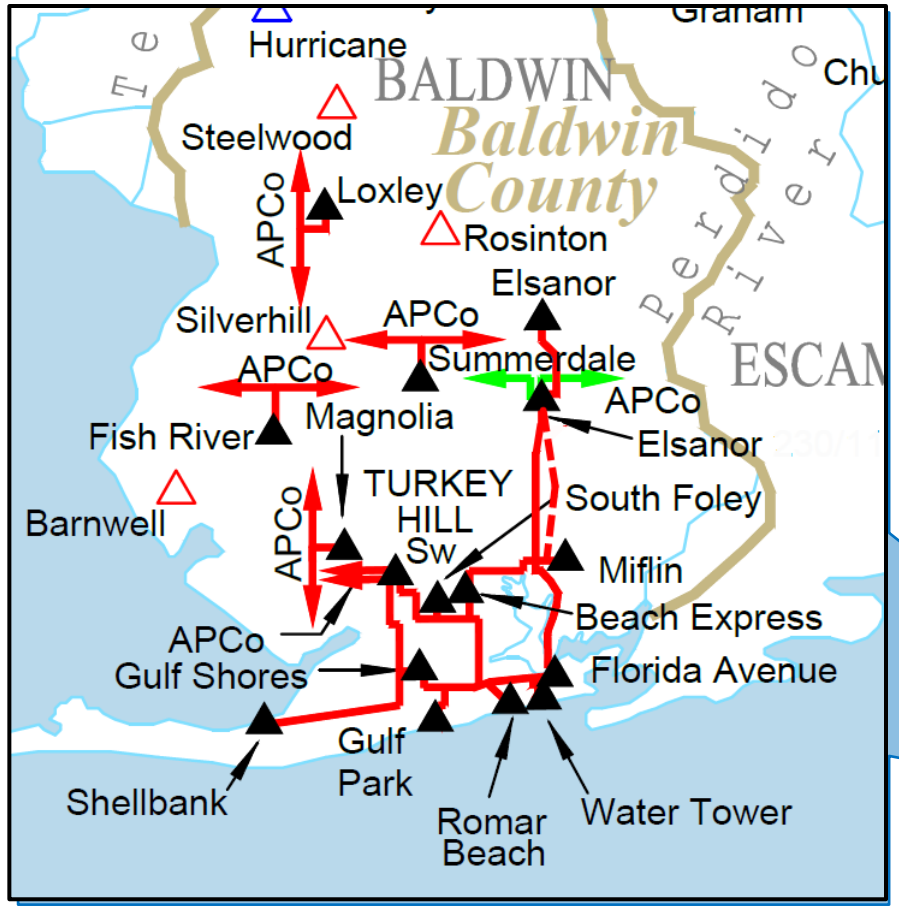
- **SUPPORTING STATEMENT:**
  - Improve the reliability of Gulf Coast Electric's substations by providing a looped service feed.



POWERSOUTH - 4

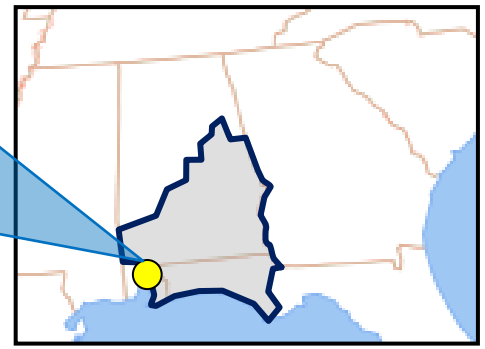
- **2025**

Elsanor - Miflin 2ND 115 KV Transmission Line



- **DESCRIPTION:**
  - Construct approximately 12.0 miles of new 115 kV transmission line from Elsanor Switching to Miflin Substation with 795 ACSR at 100°C.

- **SUPPORTING STATEMENT:**
  - The existing Elsanor-Miflin 115kV line overloads under contingency.



GULF POWER Balancing Authority Area

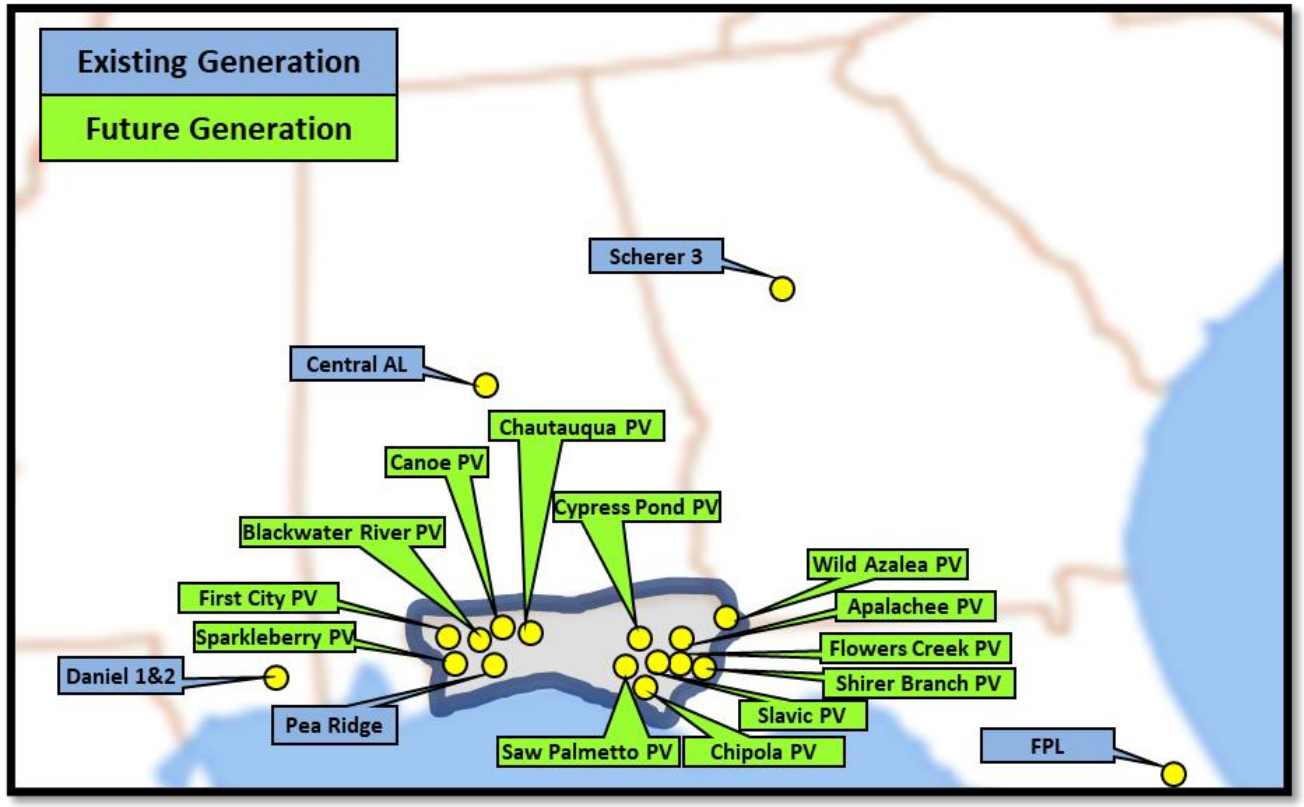
Generation Assumptions

GULF POWER Balancing Authority Area

GULF POWER – Generation Assumptions

2022

The following diagram depicts the location of generation assumptions that change throughout the ten-year planning horizon for the 2022 SERTP Process.



Southeastern Regional TRANSMISSION PLANNING

GULF POWER Balancing Authority Area

GULF POWER – Generation Assumptions

The following table depicts future generation assumptions that change throughout the ten year planning horizon for the 2022 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2022[1]	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
FLOWERS CREEK PV	Solar	--	75	75	75	75	75	75	75	75	75	75
WILD AZALEA PV	Solar	--	75	75	75	75	75	75	75	75	75	75
APALACHEE PV	Solar	--	75	75	75	75	75	75	75	75	75	75
BLACKWATER RIVER PV	Solar	--	75	75	75	75	75	75	75	75	75	75
CANOE PV	Solar	--	75	75	75	75	75	75	75	75	75	75
CHAUTAUQUA PV	Solar	--	75	75	75	75	75	75	75	75	75	75
CHIPOLA 1 PV	Solar	--	75	75	75	75	75	75	75	75	75	75
CHIPOLA 2 PV	Solar	--	75	75	75	75	75	75	75	75	75	75
CHIPOLA 3 PV	Solar	--	--	75	75	75	75	75	75	75	75	75
CHIPOLA 4 PV	Solar	--	--	75	75	75	75	75	75	75	75	75
CYPRESS POND PV	Solar	--	75	75	75	75	75	75	75	75	75	75
FIRST CITY PV	Solar	--	75	75	75	75	75	75	75	75	75	75
SAW PALMETTO PV	Solar	--	75	75	75	75	75	75	75	75	75	75
SHIRER BRANCH PV	Solar	--	75	75	75	75	75	75	75	75	75	75
SLAVIC PV	Solar	--	--	75	75	75	75	75	75	75	75	75
SPARKLEBERRY	Solar	--	75	75	75	75	75	75	75	75	75	75

Note: Gulf Power is now part of FPL Balancing Authority

Southeastern Regional TRANSMISSION PLANNING

GULF POWER Balancing Authority Area

GULF POWER – Generation Assumptions (Delivery Service)

The following table depicts generation assumptions based upon expected long-term firm delivery service commitments. The years shown represent Summer Peak conditions.

SITE	2022[1]	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
DANIEL 1 & 2	500	500	0	0	0	0	0	0	0	0	0
SCHERER 3	220	220	220	220	220	220	220	0	0	0	0
CENTRAL ALABAMA	885	--	--	--	--	--	--	--	--	--	--
PEA RIDGE	12	12	12	0	0	0	0	0	0	0	0
FPL[1]	500	500	850	850	-600	-600	-700	-700	-850	-850	-850

[1] Positive sign indicates Gulf receiving from FPL, negative sign indicates Gulf sending to FPL.

Note: Gulf Power is now part of FPL Balancing Authority

GULF POWER Balancing Authority Area

Preliminary Transmission Expansion Plan

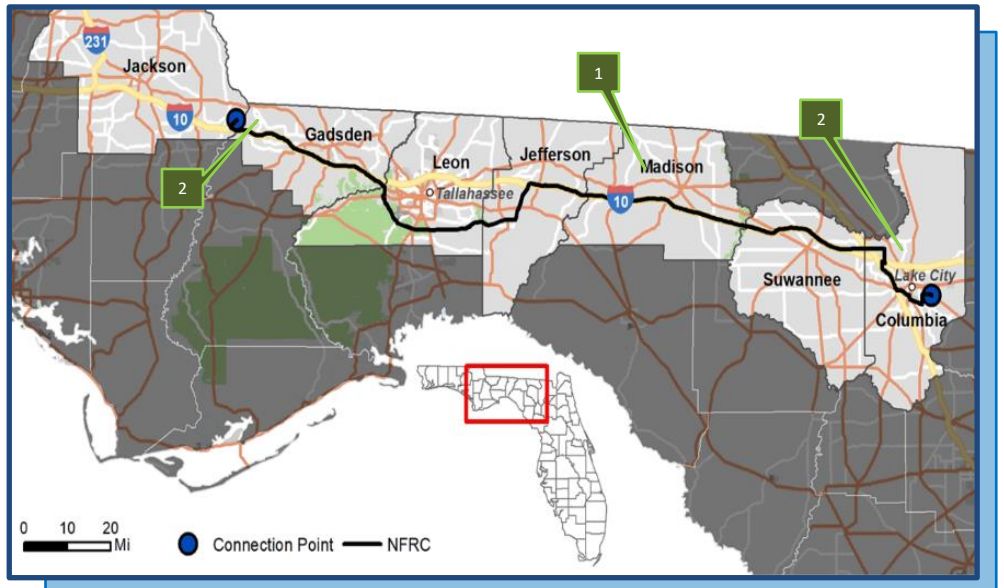
Southeastern Regional TRANSMISSION PLANNING

GULF POWER Balancing Authority Area

GULF - 1

- **2022**

RAVEN-SINAI CEMETARY 161kV TRANSMISSION LINE PROJECT



PROJECT DESCRIPTION:

1. Build a new 161kV line of approximately 176 miles rated at 3,210 Amps (895 MVA) from Raven (FPL) to Sinai Cemetery (GULF) substations.
2. Add a 230/161kV transformer at Raven and Sinai substations.

SUPPORTING STATEMENT:

- This project will help meet future load growth and continue to improve reliability in a low cost manner for Gulf Power's customers by implementing a direct transmission connection between GULF and FPL.

LEGEND
- 161 kV
- 115 kV
- 230 kV
- 500 kV

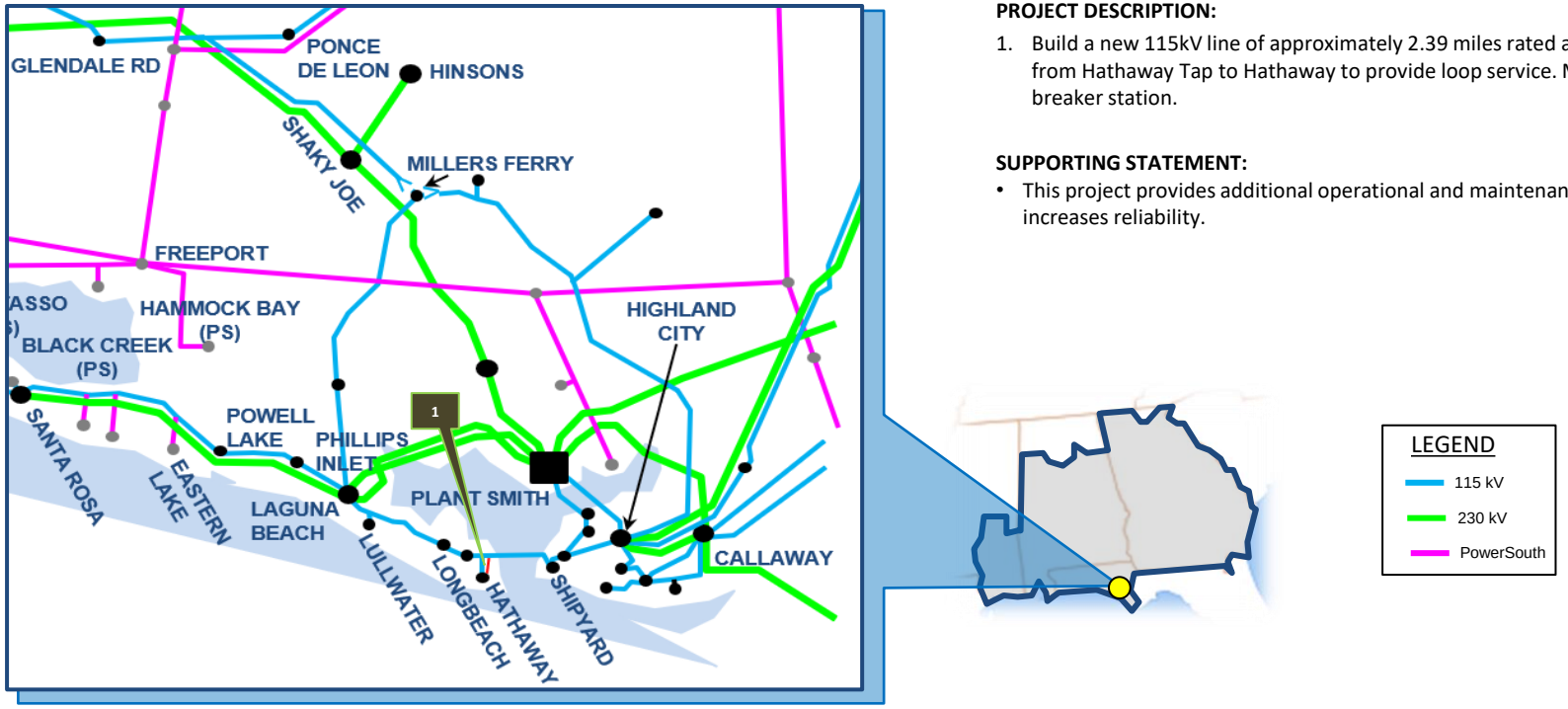
Southeastern Regional TRANSMISSION PLANNING

GULF POWER Balancing Authority Area

GULF - 2

- **2022**

HATAWAY 115KV LOOP PROJECT



PROJECT DESCRIPTION:

1. Build a new 115kV line of approximately 2.39 miles rated at 1512 Amps (301 MVA) from Hathaway Tap to Hathaway to provide loop service. Make Hathaway a breaker station.

SUPPORTING STATEMENT:

- This project provides additional operational and maintenance flexibility which then increases reliability.

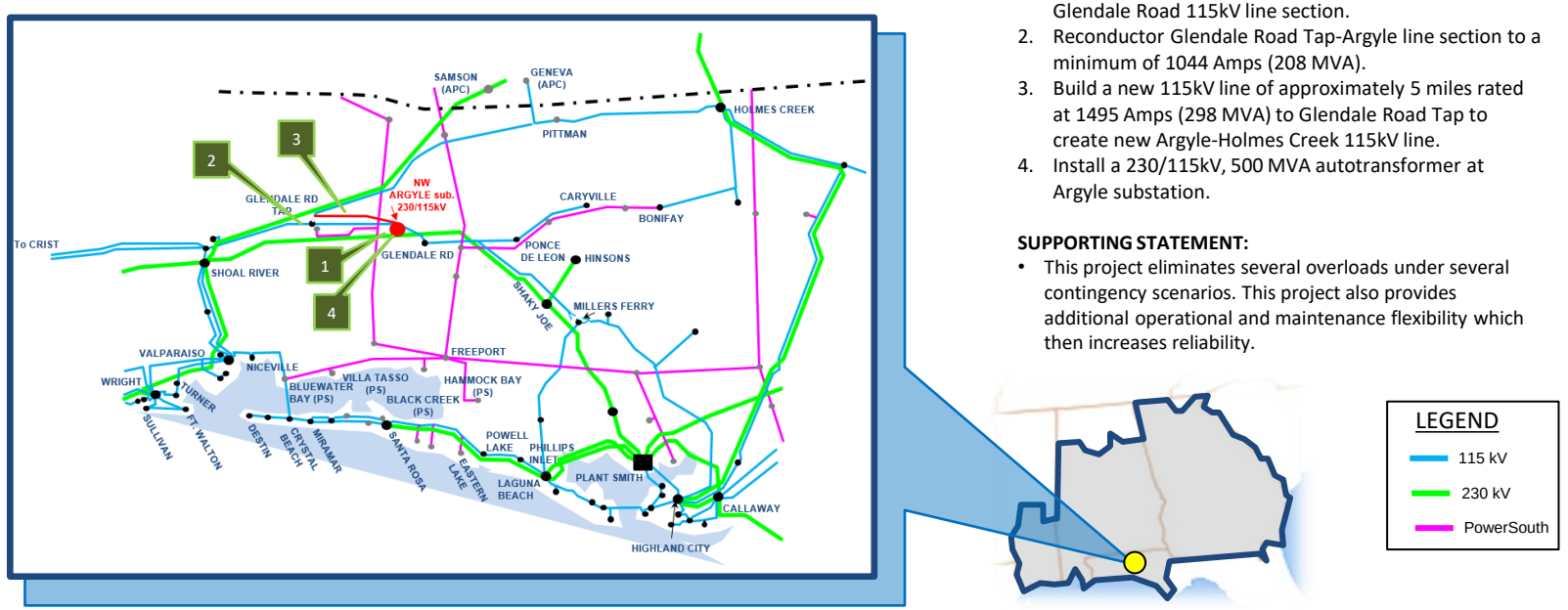
Southeastern Regional TRANSMISSION PLANNING

GULF POWER Balancing Authority Area

GULF - 3

- **2022**

ARGYLE INJECTION



PROJECT DESCRIPTION:

1. Build a new 230/115kV substation (Argyle). Loop-in Shoal River-Smith 230kV line and Glendale Road Tap-Glendale Road 115kV line section.
2. Reconductor Glendale Road Tap-Argyle line section to a minimum of 1044 Amps (208 MVA).
3. Build a new 115kV line of approximately 5 miles rated at 1495 Amps (298 MVA) to Glendale Road Tap to create new Argyle-Holmes Creek 115kV line.
4. Install a 230/115kV, 500 MVA autotransformer at Argyle substation.

SUPPORTING STATEMENT:

- This project eliminates several overloads under several contingency scenarios. This project also provides additional operational and maintenance flexibility which then increases reliability.

LEGEND

- 115 kV
- 230 kV
- PowerSouth

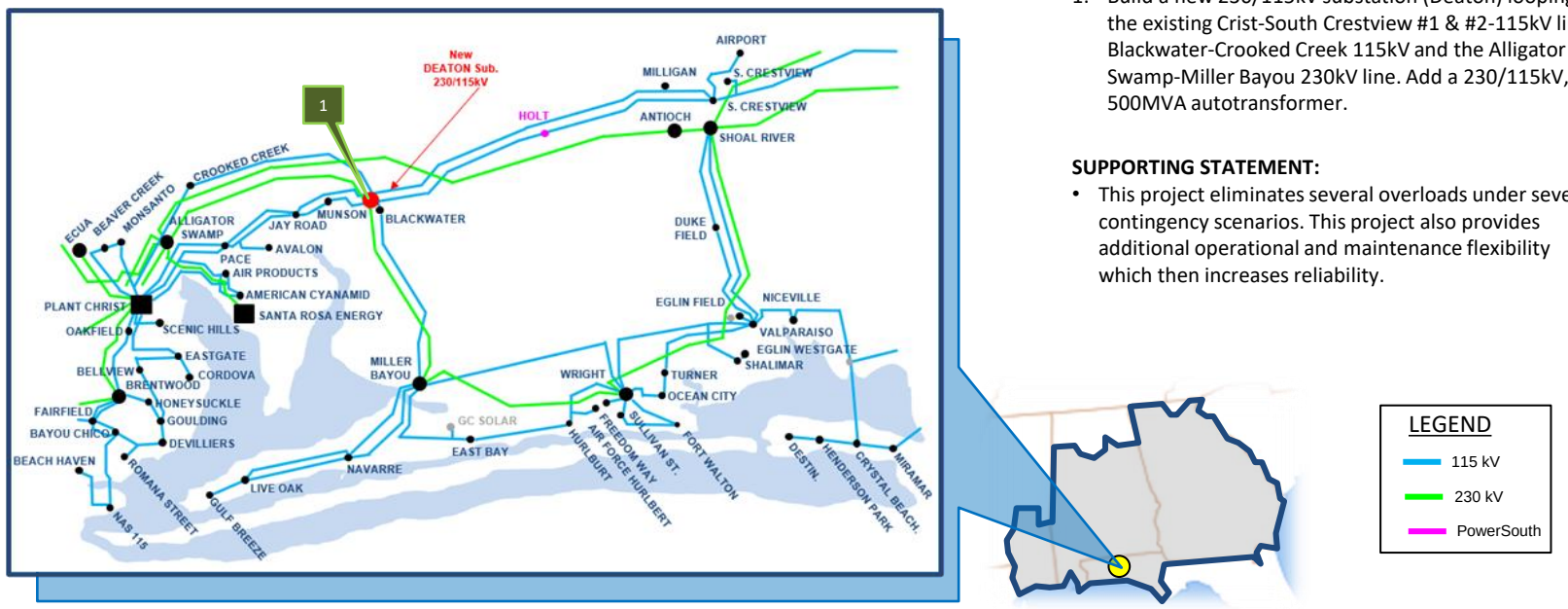
Southeastern Regional TRANSMISSION PLANNING

GULF POWER Balancing Authority Area

GULF - 4

- **2022**

DEATON INJECTION



LEGEND
- 115 kV
- 230 kV
- PowerSouth

PROJECT DESCRIPTION:

1. Build a new 230/115kV substation (Deaton) looping-in the existing Crist-South Crestview #1 & #2-115kV lines, Blackwater-Crooked Creek 115kV and the Alligator Swamp-Miller Bayou 230kV line. Add a 230/115kV, 500MVA autotransformer.

SUPPORTING STATEMENT:

- This project eliminates several overloads under several contingency scenarios. This project also provides additional operational and maintenance flexibility which then increases reliability.

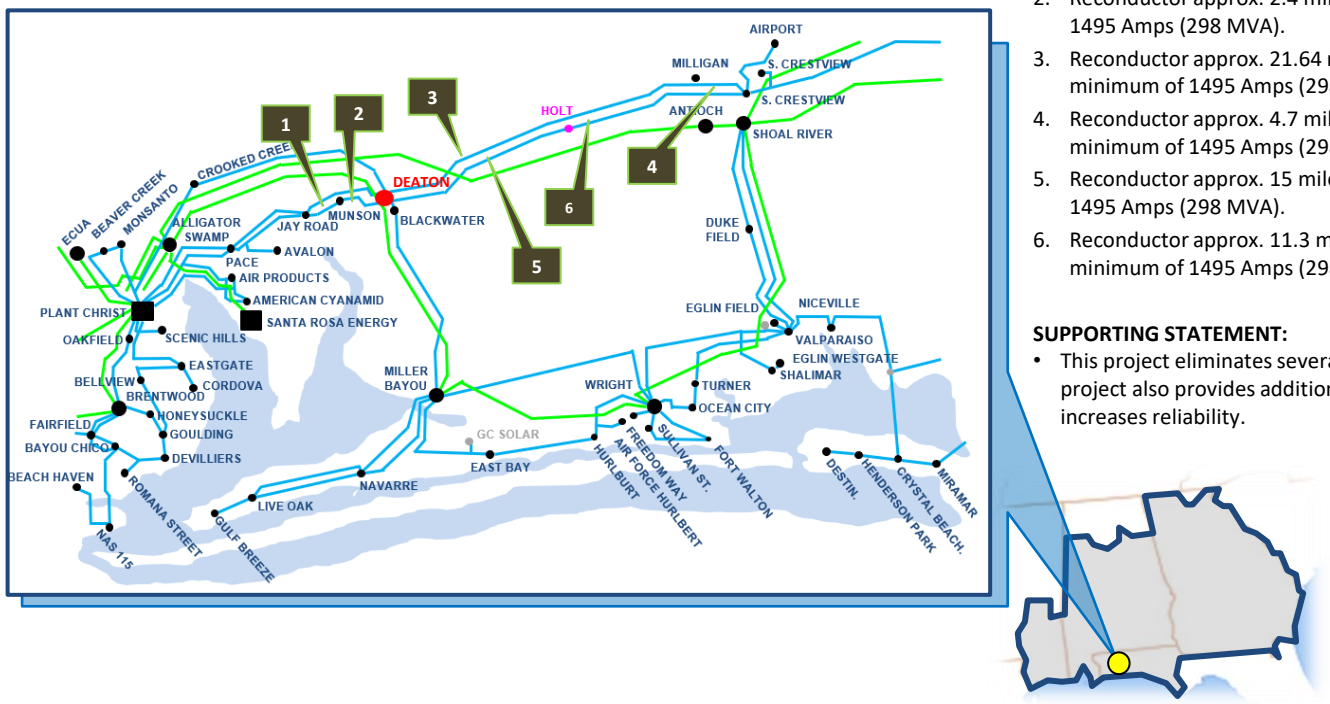
Southeastern Regional TRANSMISSION PLANNING

GULF POWER Balancing Authority Area

GULF - 5

• **2022-2023**

CRIST – DEATON-SOUTH CRESTVIEW 115 KV RECONDUCTORINGS



PROJECT DESCRIPTION:

1. Reconductor approx. 2.1 miles of JAY ROAD-MUNSON 115kV line to a minimum of 1495 Amps (298 MVA).
2. Reconductor approx. 2.4 miles of MUNSON-DEATON 115kV line to a minimum of 1495 Amps (298 MVA).
3. Reconductor approx. 21.64 miles of DEATON-MILLIGAN TAP 115kV line to a minimum of 1495 Amps (298 MVA).
4. Reconductor approx. 4.7 miles of MILLIGAN TAP-SOUTH CRESTVIEW 115kV line to a minimum of 1495 Amps (298 MVA).
5. Reconductor approx. 15 miles of DEATON-HOLT TP 115kV line to a minimum of 1495 Amps (298 MVA).
6. Reconductor approx. 11.3 miles of HOLT TP-SOUTH CRESTVIEW 115kV line to a minimum of 1495 Amps (298 MVA).

SUPPORTING STATEMENT:

- This project eliminates several overloads under several contingency scenarios. This project also provides additional operational and maintenance flexibility which then increases reliability.

LEGEND

- 115 kV
- 230 kV
- PowerSouth

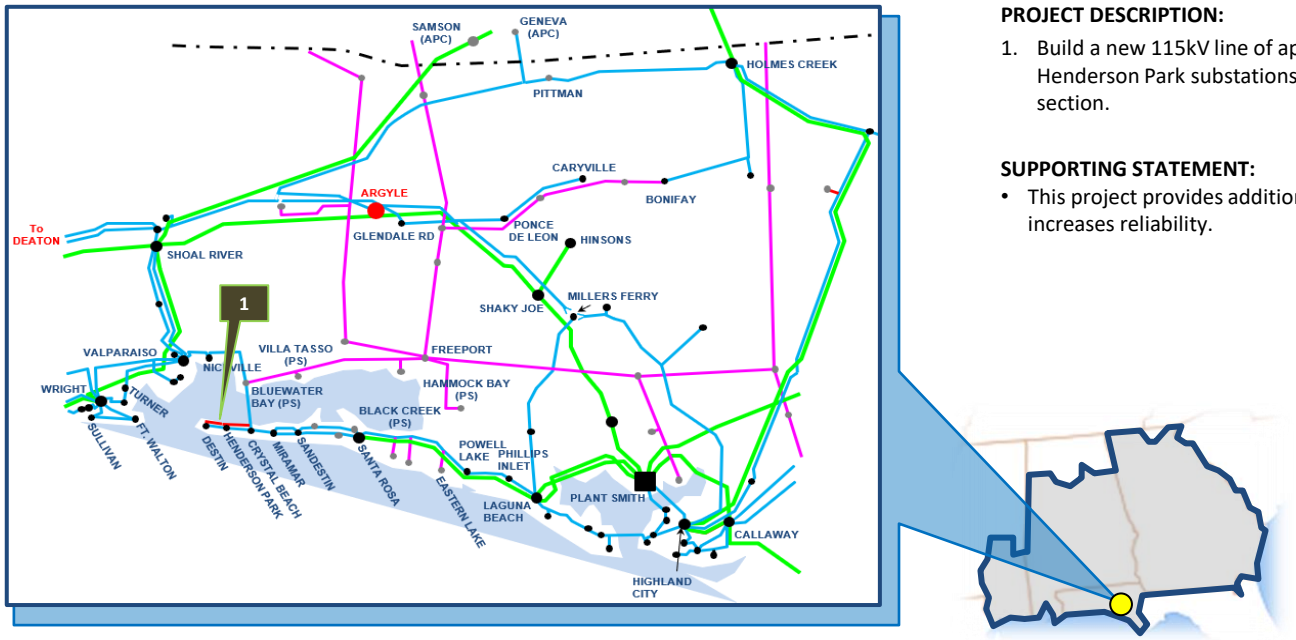
Southeastern Regional TRANSMISSION PLANNING

GULF POWER Balancing Authority Area

GULF - 6

- **2023**

DESTIN 115KV LOOP PROJECT



PROJECT DESCRIPTION:

1. Build a new 115kV line of approximately 4.18 miles to loop-in Destin and Henderson Park substations on the Bluewater Bay (PS)-Crystal Beach 115kV line section.

SUPPORTING STATEMENT:

- This project provides additional operational and maintenance flexibility which then increases reliability.

LEGEND

- 115 kV
- 230 kV
- PowerSouth

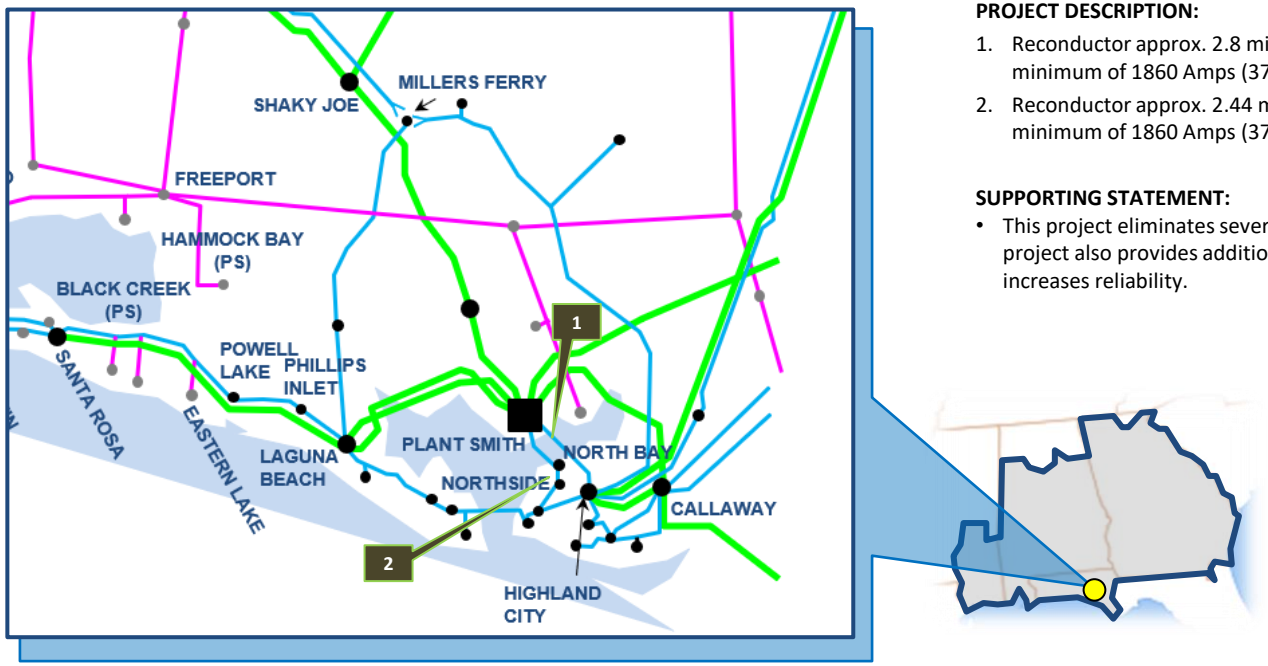
Southeastern Regional TRANSMISSION PLANNING

GULF POWER Balancing Authority Area

GULF - 7

• **2023**

GREENWOOD-LANSING SMITH #1-115 KV RECONDUCTORINGS

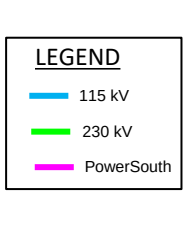


PROJECT DESCRIPTION:

1. Reconductor approx. 2.8 miles of LANSING SMITH-NORTH BAY 115kV line to a minimum of 1860 Amps (371 MVA).
2. Reconductor approx. 2.44 miles of NORTHSIDE-NORTH BAY 115kV line to a minimum of 1860 Amps (371 MVA).

SUPPORTING STATEMENT:

- This project eliminates several overloads under several contingency scenarios. This project also provides additional operational and maintenance flexibility which then increases reliability.



LEGEND

- 115 kV
- 230 kV
- PowerSouth

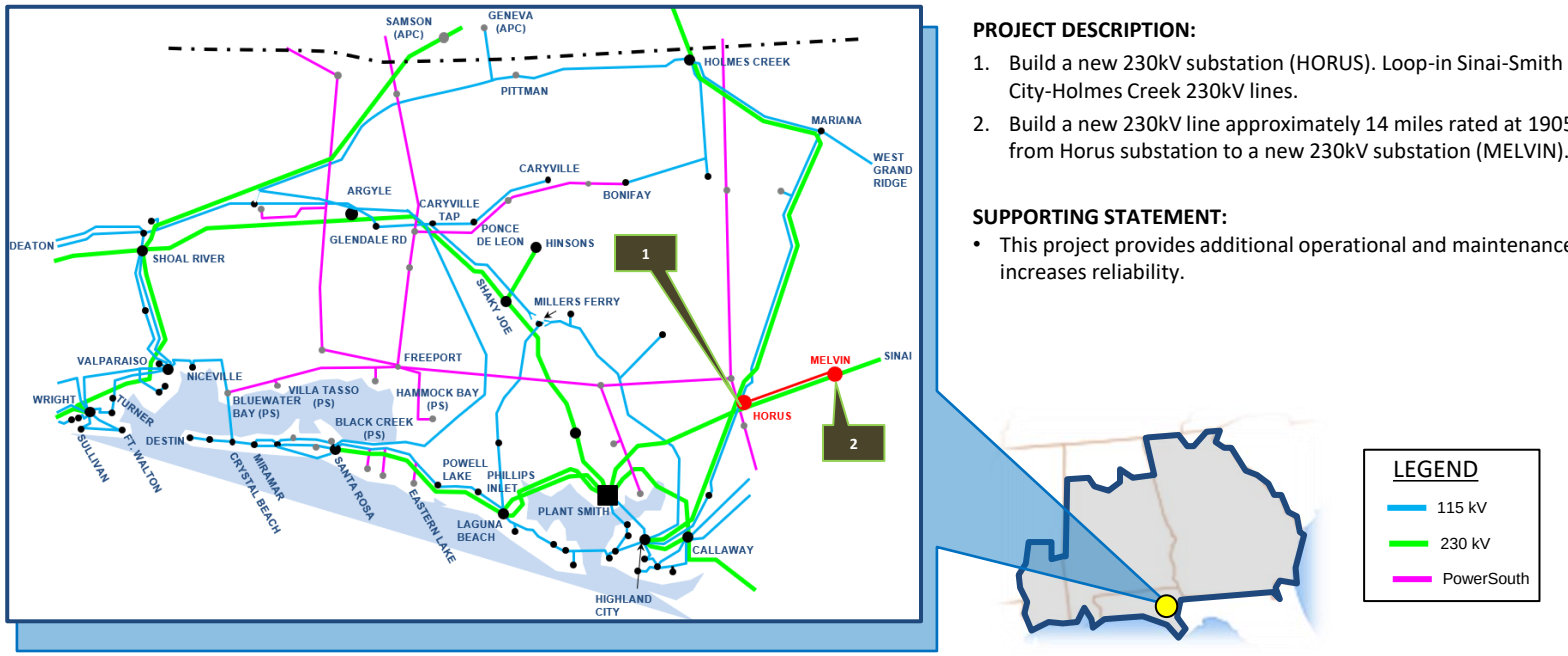
Southeastern Regional TRANSMISSION PLANNING

GULF POWER Balancing Authority Area

GULF - 8

- **2023**

HORUS INJECTION PROJECT



PROJECT DESCRIPTION:

1. Build a new 230kV substation (HORUS). Loop-in Sinai-Smith 230kV and Highland City-Holmes Creek 230kV lines.
2. Build a new 230kV line approximately 14 miles rated at 1905 Amps (759 MVA) from Horus substation to a new 230kV substation (MELVIN).

SUPPORTING STATEMENT:

- This project provides additional operational and maintenance flexibility which then increases reliability.

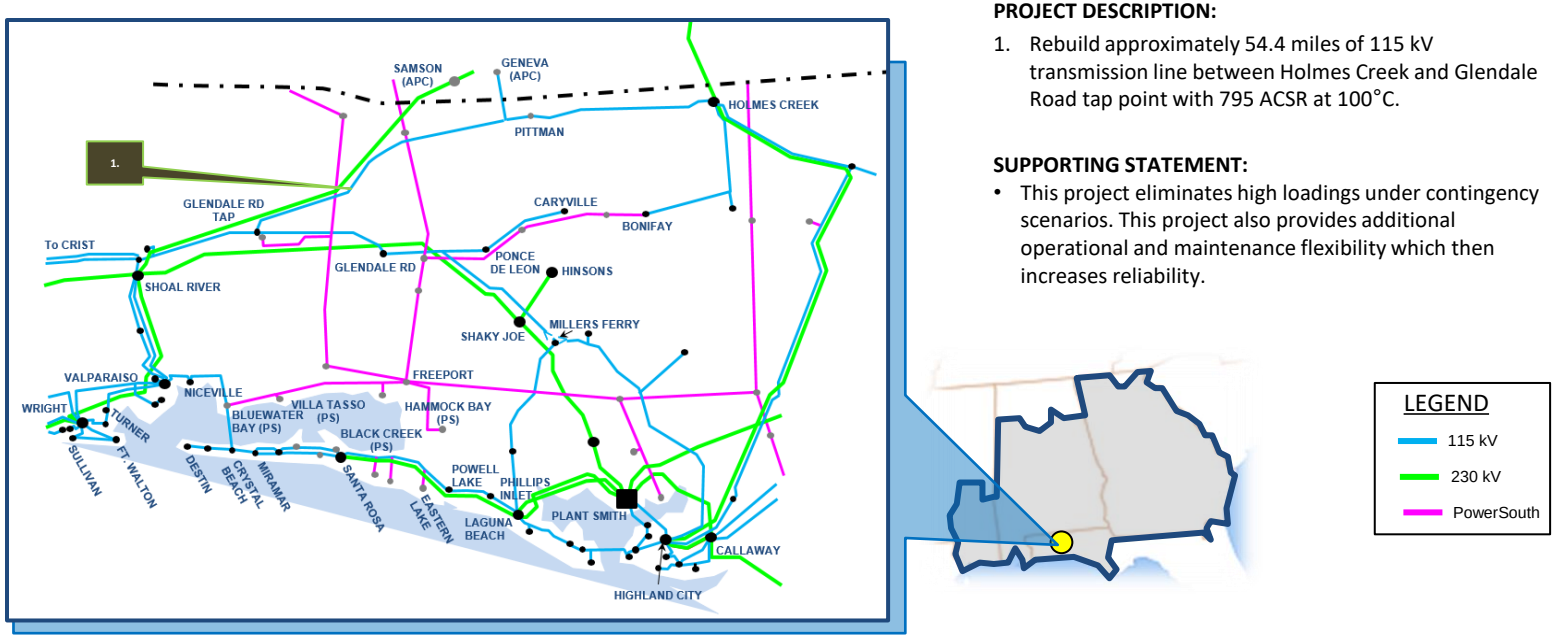
Southeastern Regional TRANSMISSION PLANNING

GULF POWER Balancing Authority Area

GULF - 9

• **2024**

HOLMES CREEK – SOUTH CRESTVIEW 115 KV TRANSMISSION LINE



PROJECT DESCRIPTION:

1. Rebuild approximately 54.4 miles of 115 kV transmission line between Holmes Creek and Glendale Road tap point with 795 ACSR at 100˚C.

SUPPORTING STATEMENT:

- This project eliminates high loadings under contingency scenarios. This project also provides additional operational and maintenance flexibility which then increases reliability.

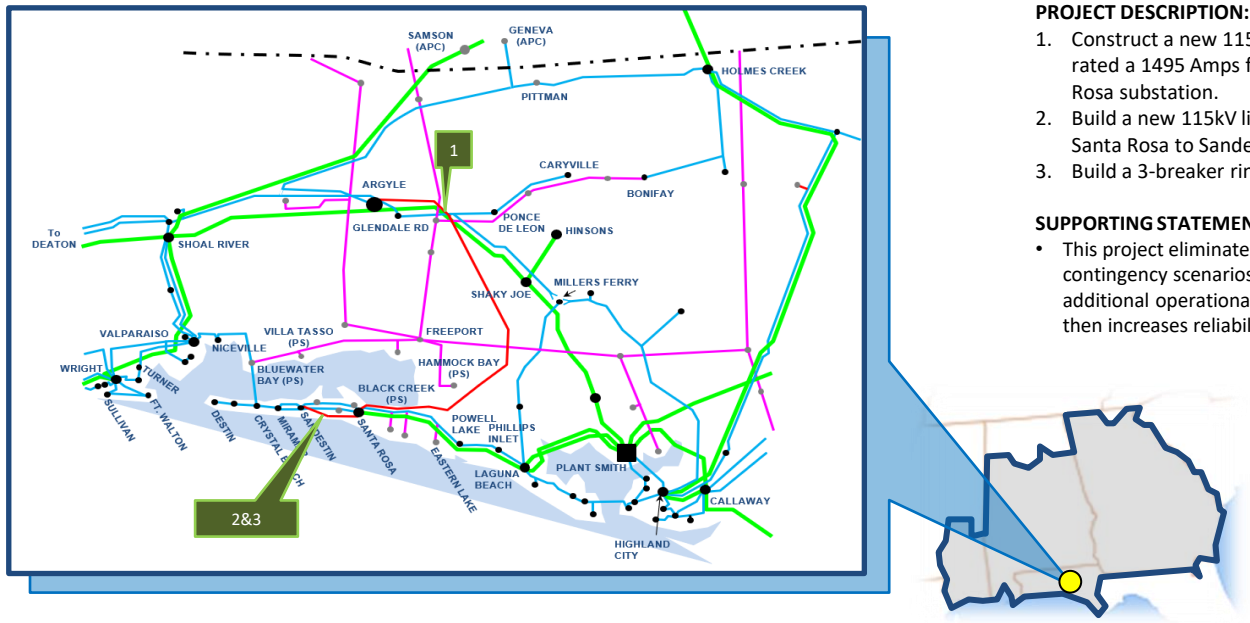
Southeastern Regional TRANSMISSION PLANNING

GULF POWER Balancing Authority Area

GULF - 10

• **2025**

ARGYLE – SANTA ROSA 115 KV TRANSMISSION LINE

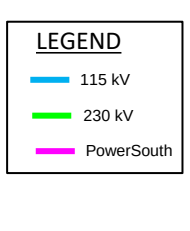


PROJECT DESCRIPTION:

1. Construct a new 115kV line of approximately 45 miles rated a 1495 Amps from new Argyle substation to Santa Rosa substation.
2. Build a new 115kV line of approximately 7.4 miles from Santa Rosa to Sandestin substation.
3. Build a 3-breaker ring bus at Sandestin site.

SUPPORTING STATEMENT:

- This project eliminates several overloads under several contingency scenarios. This project also provides additional operational and maintenance flexibility which then increases reliability.



LEGEND

- 115 kV
- 230 kV
- PowerSouth

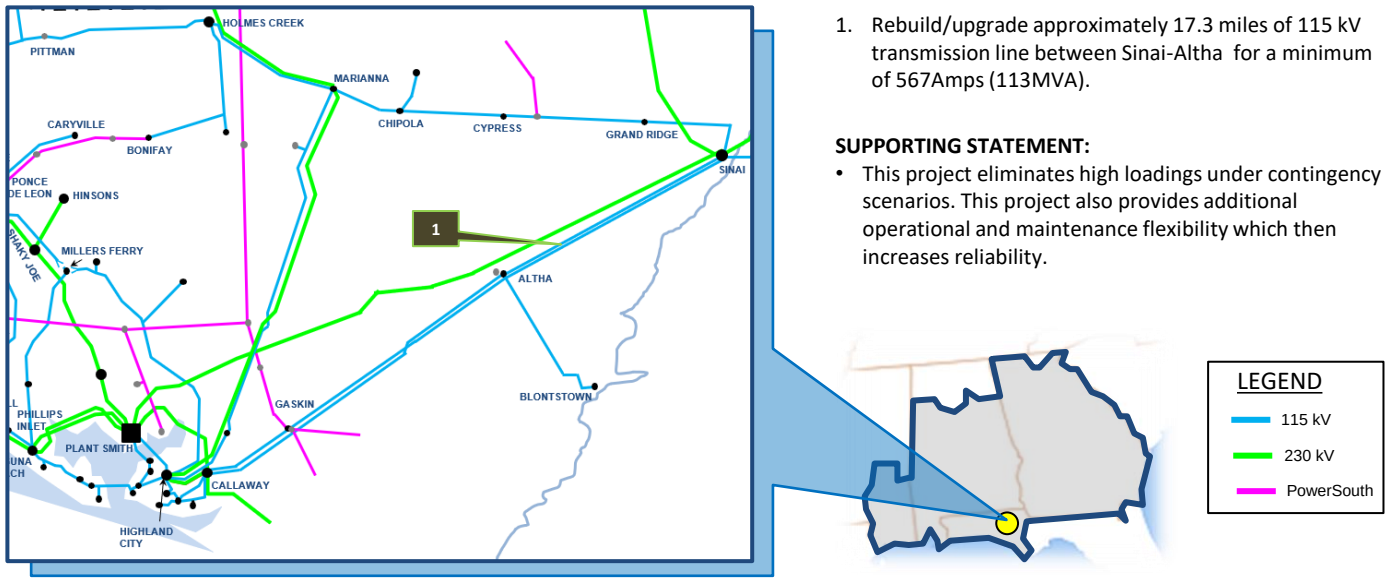
Southeastern Regional TRANSMISSION PLANNING

GULF POWER Balancing Authority Area

GULF - 11

- **2027**

SINAI-GASKIN 115 KV TRANSMISSION LINE



PROJECT DESCRIPTION:

1. Rebuild/upgrade approximately 17.3 miles of 115 kV transmission line between Sinai-Altha for a minimum of 567Amps (113MVA).

SUPPORTING STATEMENT:

- This project eliminates high loadings under contingency scenarios. This project also provides additional operational and maintenance flexibility which then increases reliability.

GULF POWER Balancing Authority Area

Upcoming 2022 Generation Assumptions

* GULF has no generation assumptions expected to change throughout the ten year planning horizon for the 2022 SERTP Process.

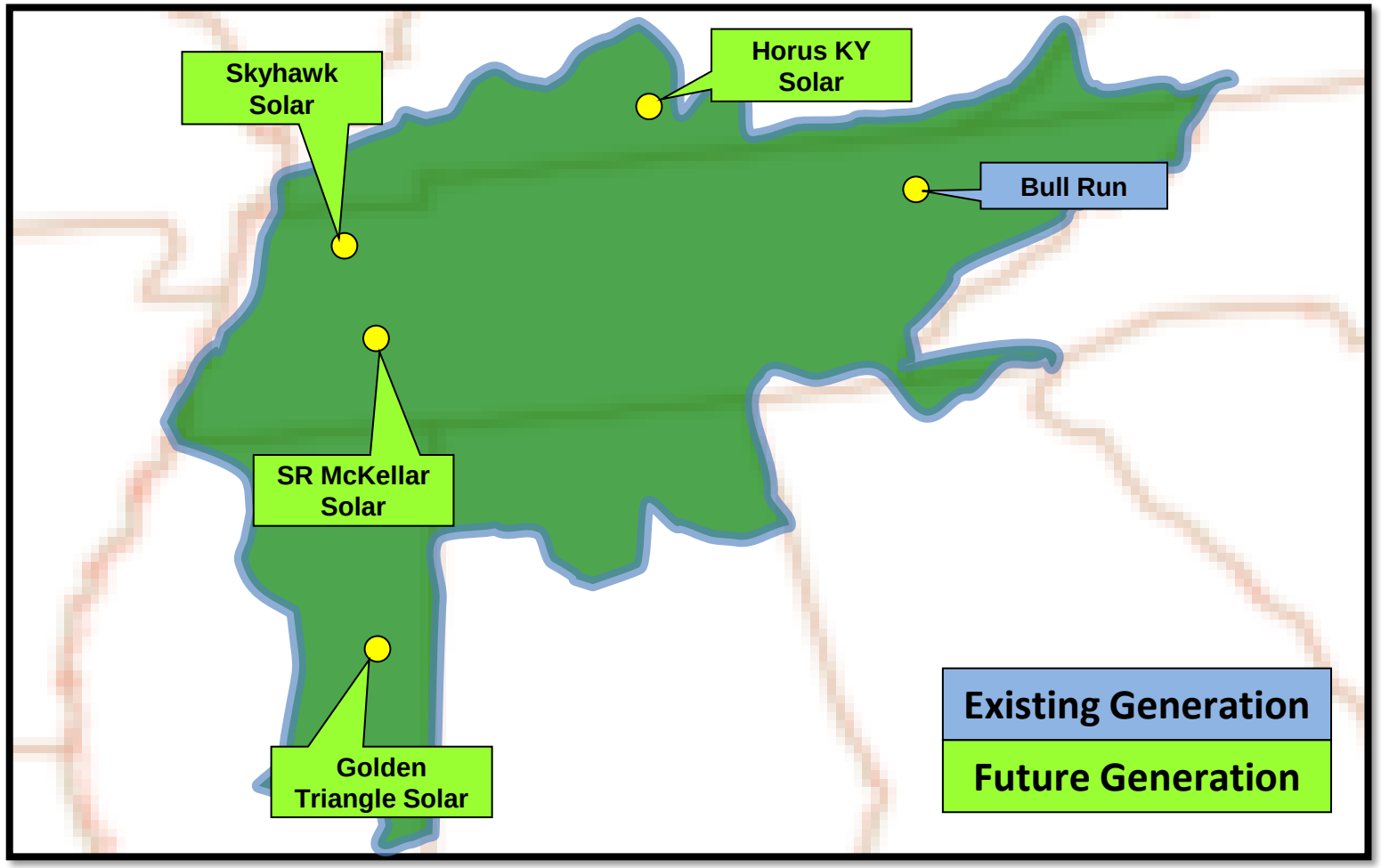
TVA Balancing Authority Area

Generation Assumptions

TVA Balancing Authority Area

TVA – Generation Assumptions

The following diagram depicts the location of generation assumptions <u>that change</u> throughout the ten year planning horizon for the 2022 SERTP Process.



TVA – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2022 SERTP Process. The years shown represent Summer Peak conditions.

SITE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
BULL RUN FP UNIT 1	925	0	--	--	--	--	--	--	--	--
GOLDEN TRIANGLE SOLAR	200	200	200	200	200	200	200	200	200	200
HORUS KY SOLAR	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3
SKYHAWK SOLAR	100	100	100	100	100	100	100	100	100	100
SR MCKELLAR SOLAR	80	80	80	80	80	80	80	80	80	80

TVA Balancing Authority Area

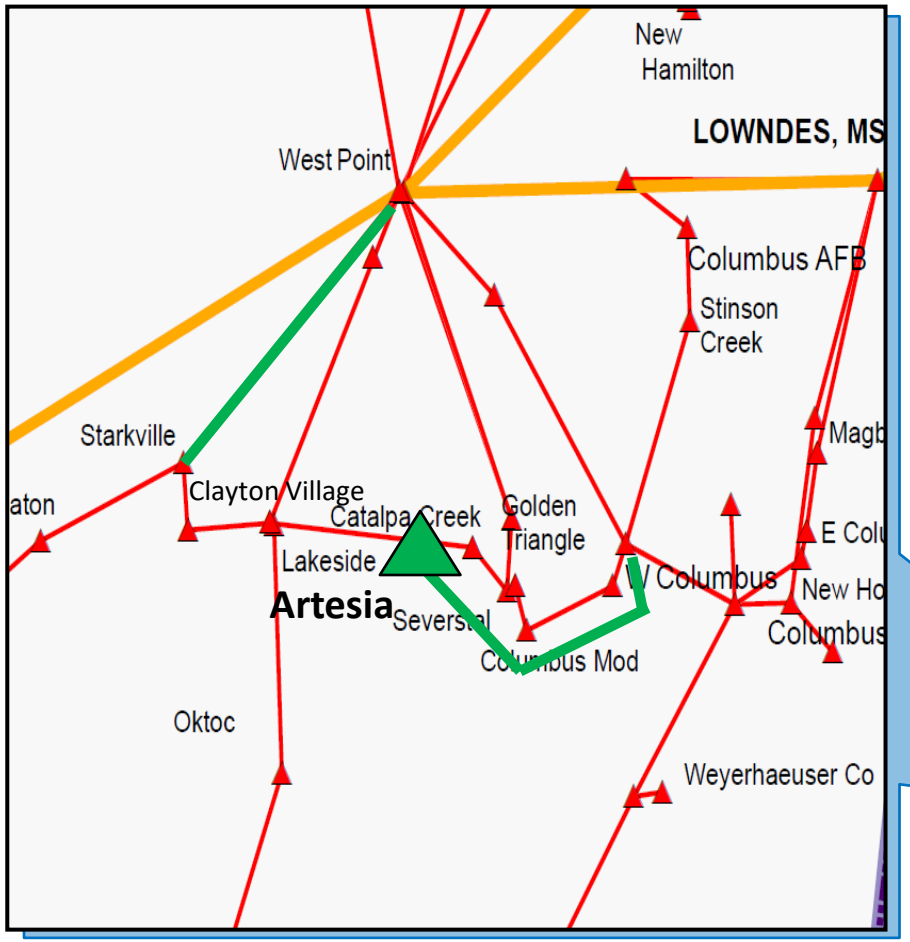
Preliminary Transmission Expansion Plan

TVA Balancing Authority Area

TVA – 1

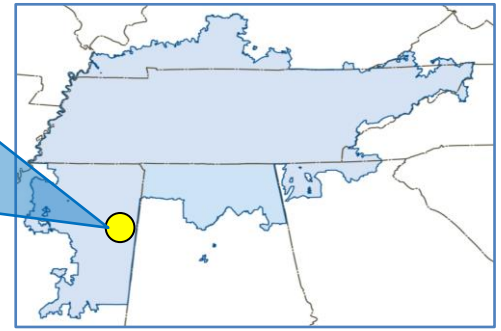
- **2022**

ARTESIA – W. COLUMBUS 161 KV TRANSMISSION LINE



- **DESCRIPTION:**
  - Construct the Artesia 161 kV Substation. Construct approximately 12.0 miles for Artesia to West Columbus with 954 ACSS at 150°C. Reconductor approximately 15.0 miles of West Point to Starkville 161 kV with 954 ACSS at 150°C.

- **SUPPORTING STATEMENT:**
  - Thermal overloads occur and voltage support is needed in the West Point and Columbus area under contingency.

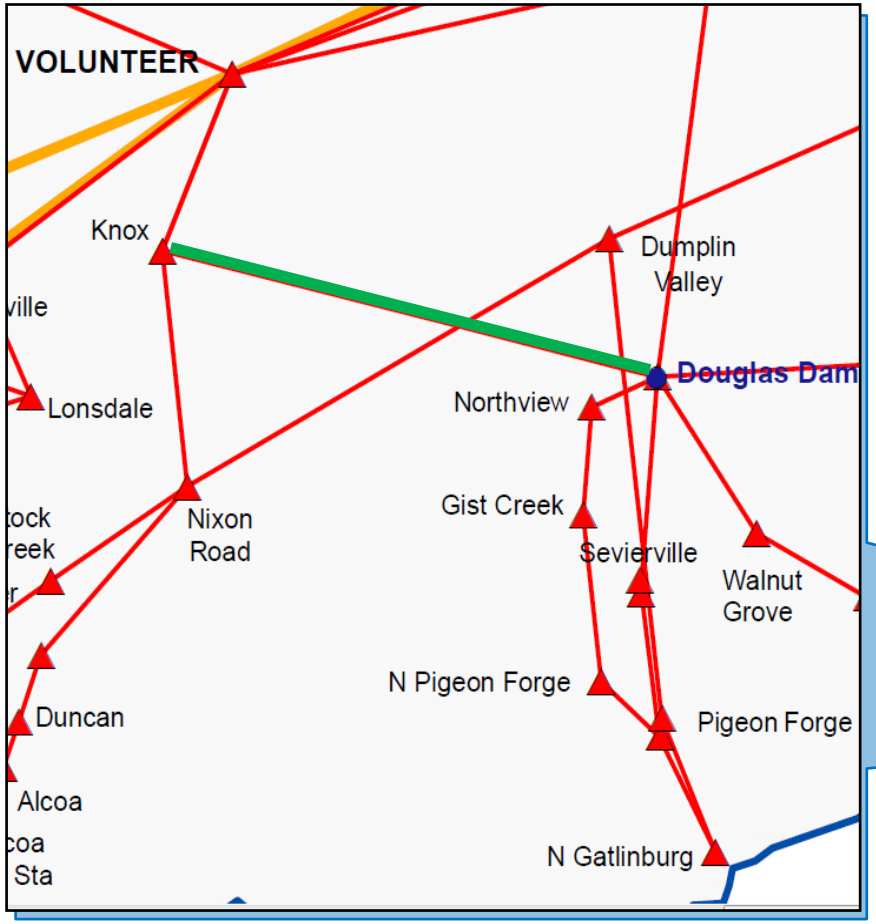


TVA Balancing Authority Area

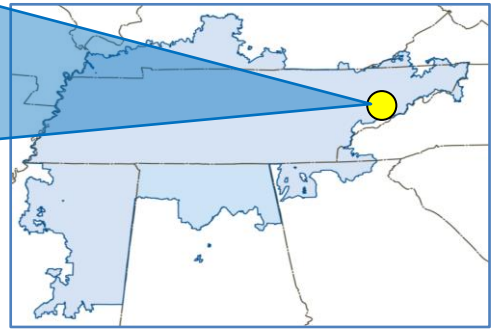
TVA – 2

- **2022**

KNOX – DOUGLAS 161 KV TRANSMISSION LINE



- **DESCRIPTION:**
  - Rebuild approximately 15.0 miles of the Knox to Douglas 161 kV transmission line with 954 ACSS at 125°C.
- **SUPPORTING STATEMENT:**
  - The Knox to Douglas 161 kV transmission line overloads under contingency.

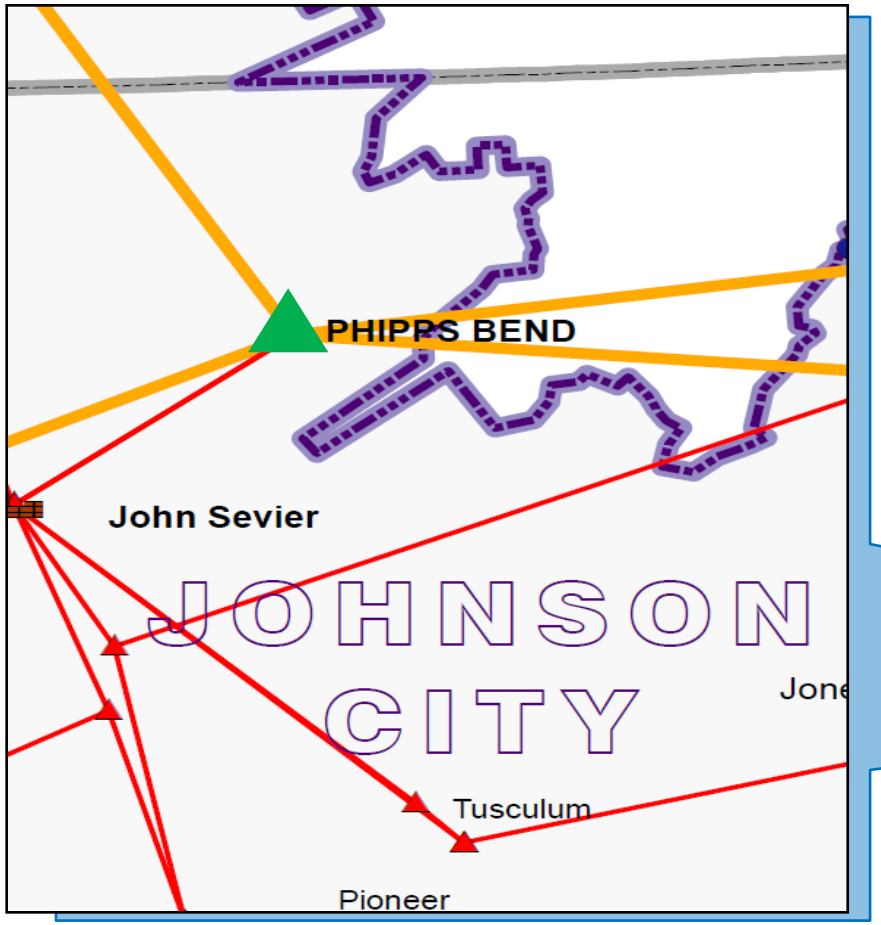


TVA Balancing Authority Area

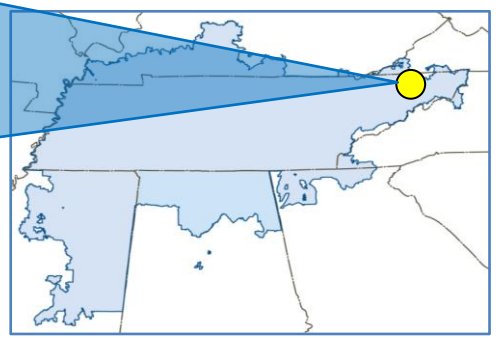
TVA – 3

- **2022**

PHIPPS BEND 500 KV SUBSTATION



- **DESCRIPTION:**
  - Rebuild structures with weathered steel in the Phipps Bend 500 and 161 kV yard.
- **SUPPORTING STATEMENT:**
  - Steel structures in the Phipps Bend 500 kV and 161 kV yards are beginning to show signs of corrosion and will be replaced.

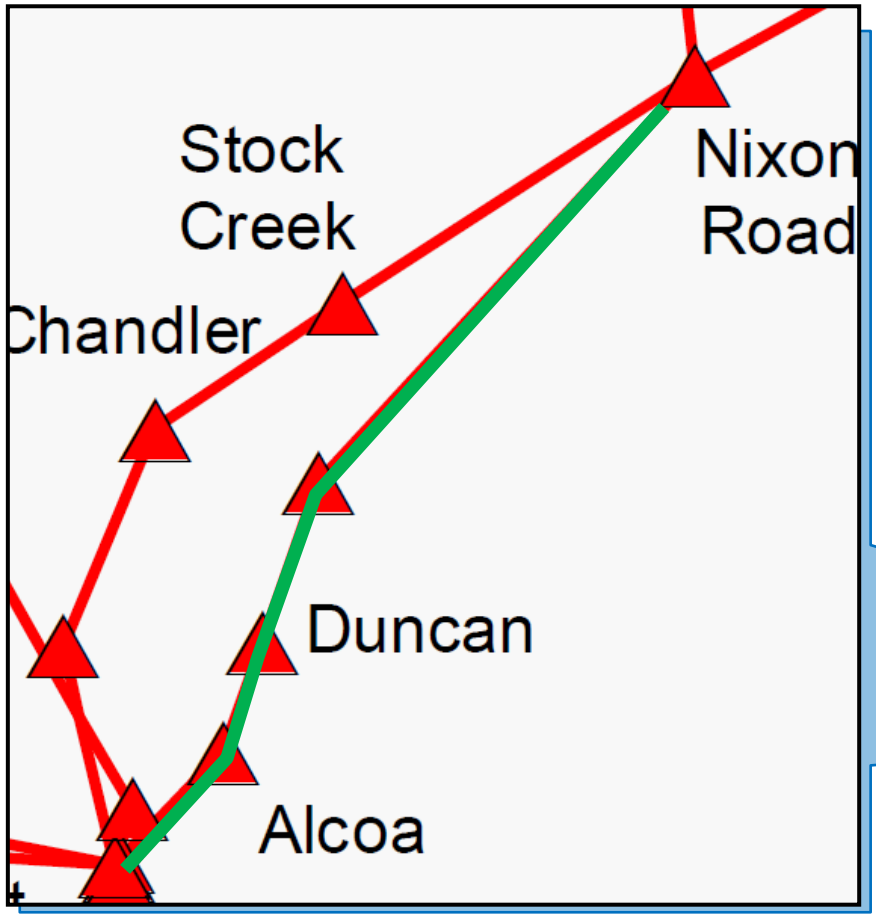


TVA Balancing Authority Area

TVA – 4

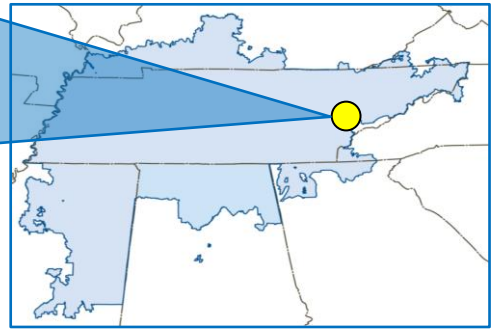
- **2023**

ALCOA SS – NIXON ROAD 161 KV TRANSMISSION LINE



- **DESCRIPTION:**
  - Rebuild approximately 12.0 miles of the Alcoa North to Nixon Road 161 kV transmission line with 1590 ACSR at 100°C and construct approximately 2.0 miles of new transmission line to create the Alcoa SS to Nixon Rd 161 kV #2 transmission line.

- **SUPPORTING STATEMENT:**
  - The existing Alcoa Switching Station to Nixon Road 161 kV transmission line overloads under contingency.

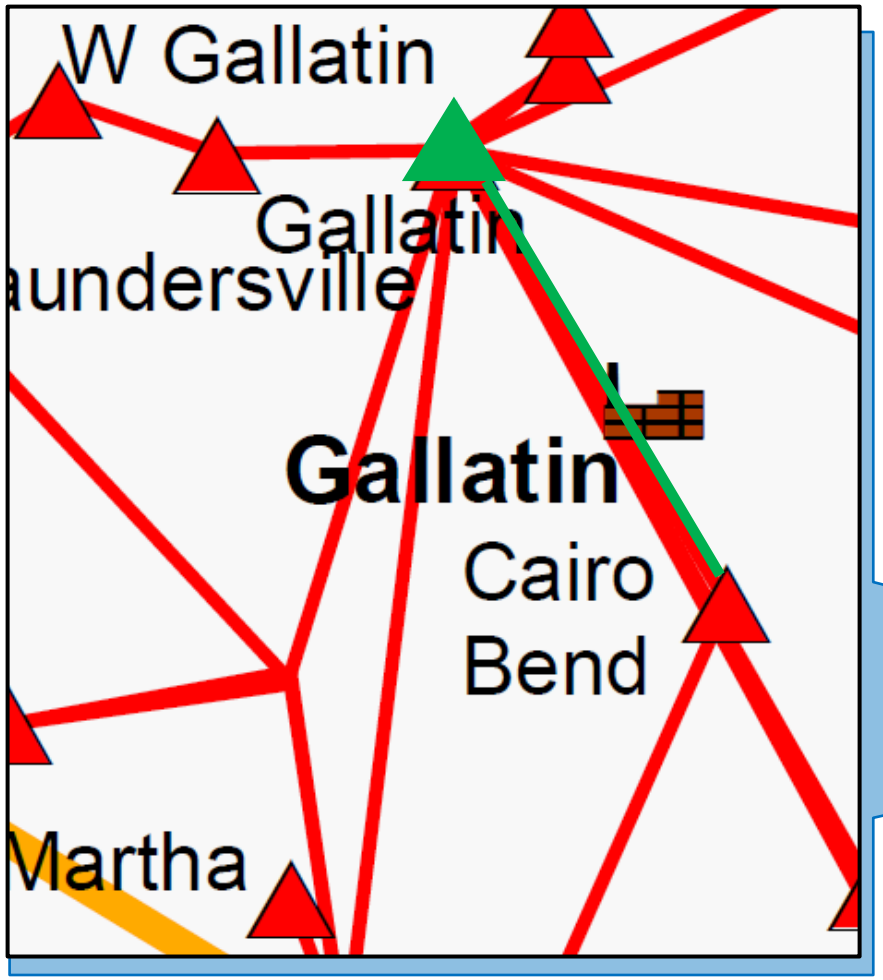


TVA Balancing Authority Area

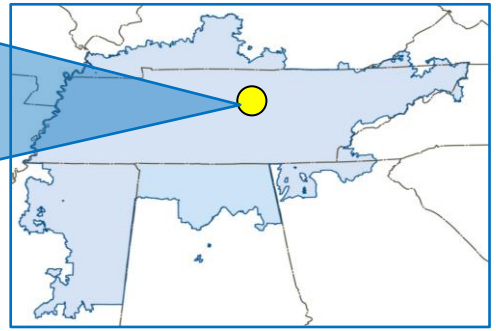
TVA – 5

- **2023**

GALLATIN - CAIRO BEND 161 KV TRANSMISSION LINE



- **DESCRIPTION:**
  - Reconductor approximately 2.2 miles of the Gallatin - Cairo Bend 161 kV transmission line section with 954 ACSS at 150°C and upgrade terminal equipment to 440 MVA at Gallatin 161 kV.
- **SUPPORTING STATEMENT:**
  - The Gallatin FP - Cairo Bend 161 kV transmission line section overloads under contingency.

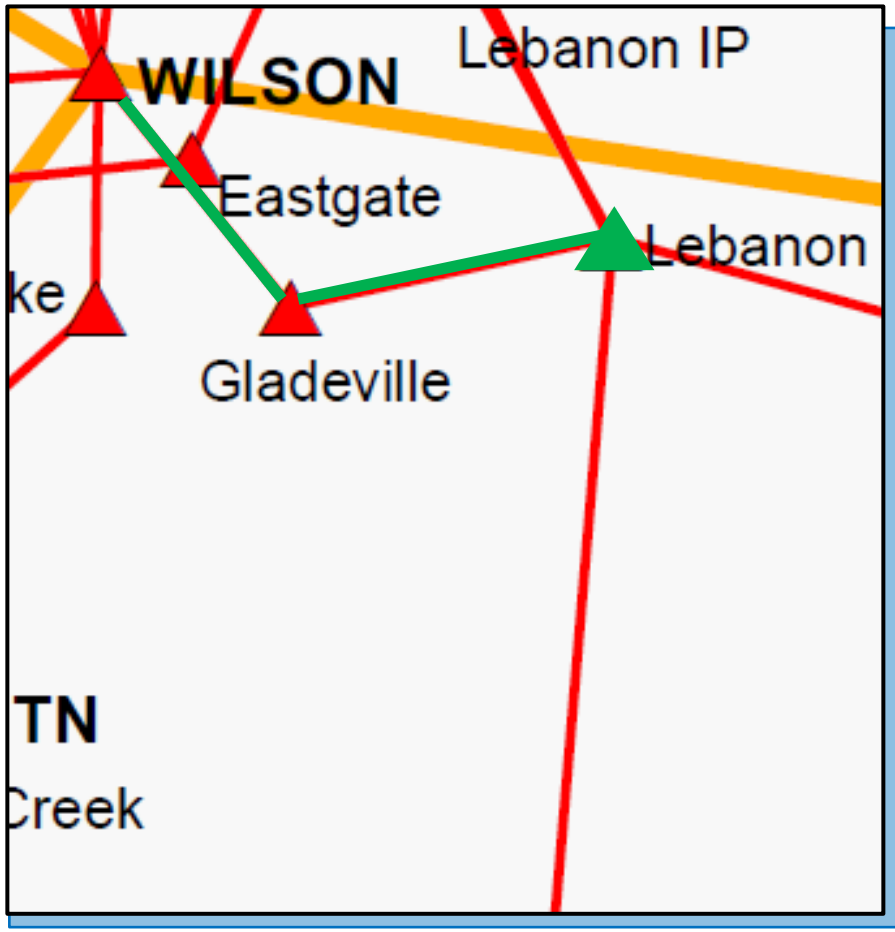


TVA Balancing Authority Area

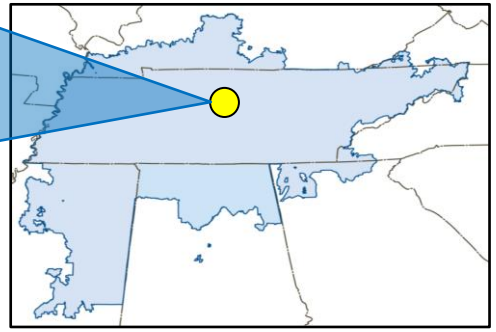
TVA – 6

- **2023**

WILSON - LEBANON 161 KV TRANSMISSION LINE



- **DESCRIPTION:**
  - Rebuild approximately 6.0 miles on the Wilson - Lebanon 161 kV transmission line with 636 ACSR at 100°C and upgrade terminal equipment to 230 MVA at Lebanon 161 kV substation.
- **SUPPORTING STATEMENT:**
  - The Wilson - Lebanon 161 kV transmission line overloads under contingency.

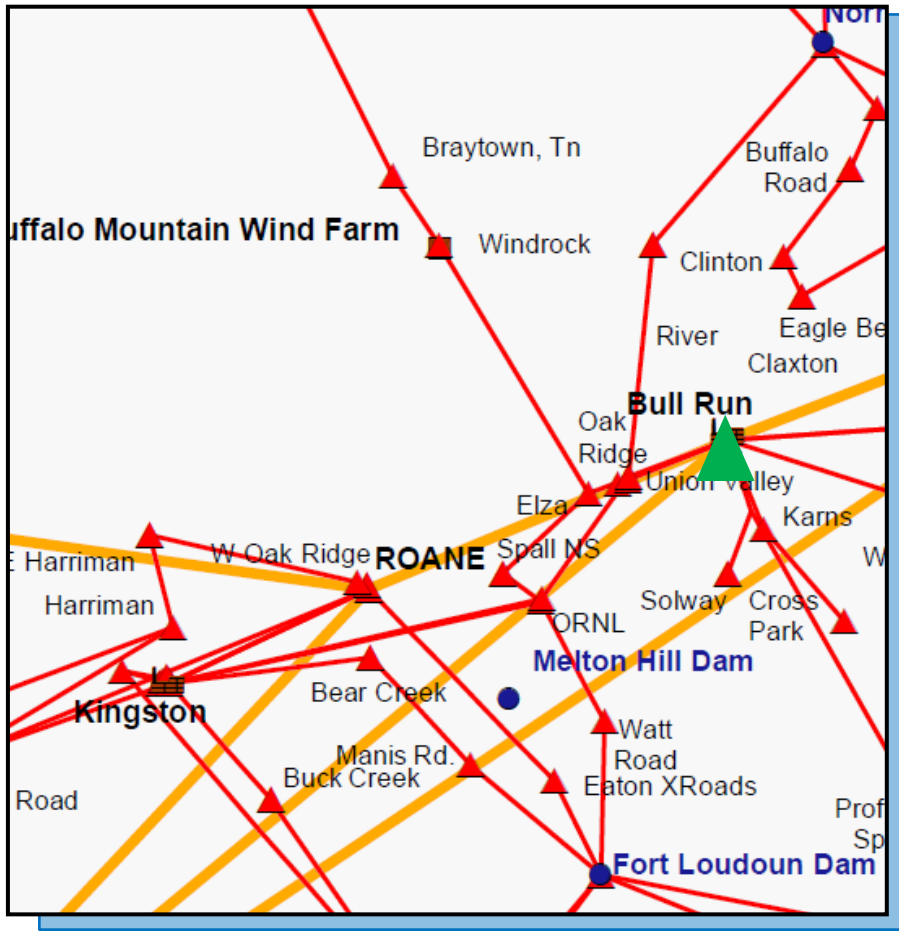


TVA Balancing Authority Area

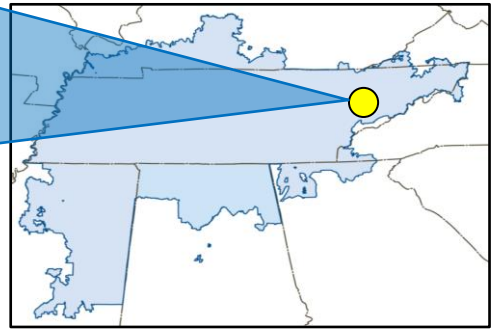
TVA – 7

- **2023**

ANDERSON 500 KV SUBSTATION



- **DESCRIPTION:**
  - Build new Anderson 500kV Substation and build Anderson 500/161 kV transformer bank.
- **SUPPORTING STATEMENT:**
  - Area 500/161 kV transformer overloads under contingency.

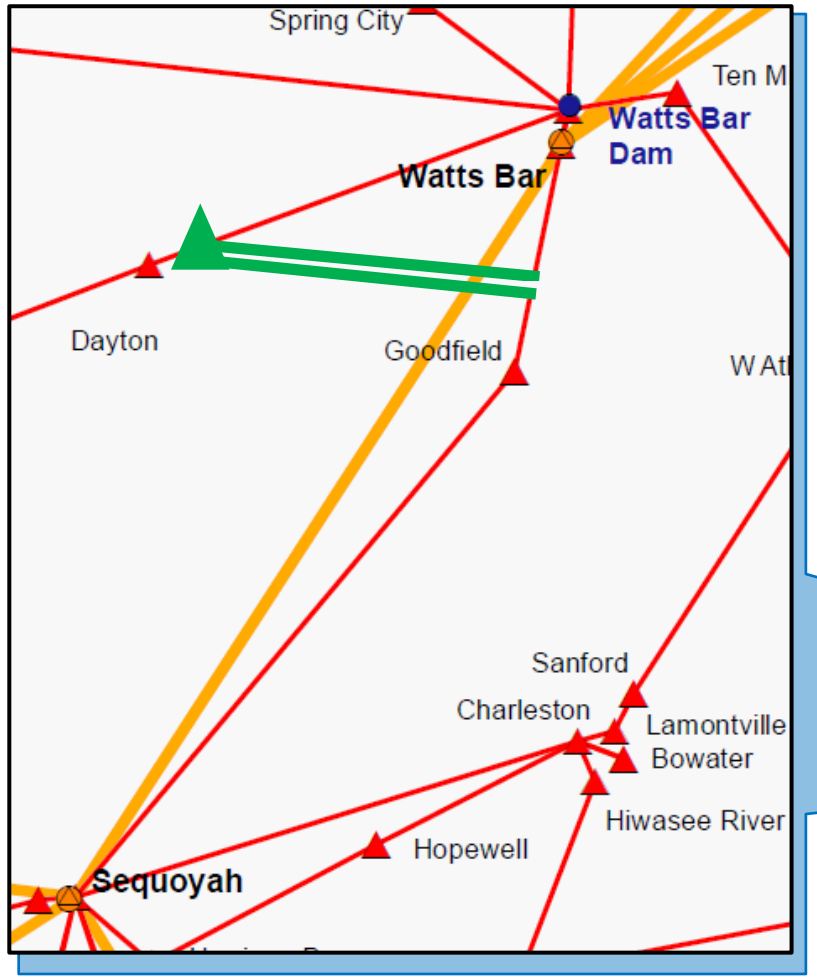


TVA Balancing Authority Area

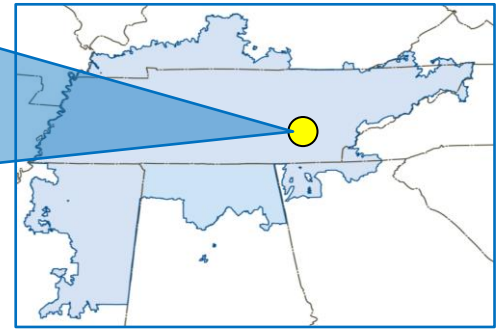
TVA – 8

- **2023**

N. DAYTON SUBSTATION



- **DESCRIPTION:**
  - Construct North Dayton 161 kV substation. Loop in Sequoyah - WBHP 161 kV transmission line into new substation by constructing approximately 27.0 miles of transmission line using 1351 ACSR.
- **SUPPORTING STATEMENT:**
  - Thermal overloads and voltage support is needed in the North Dayton, TN area under contingency.

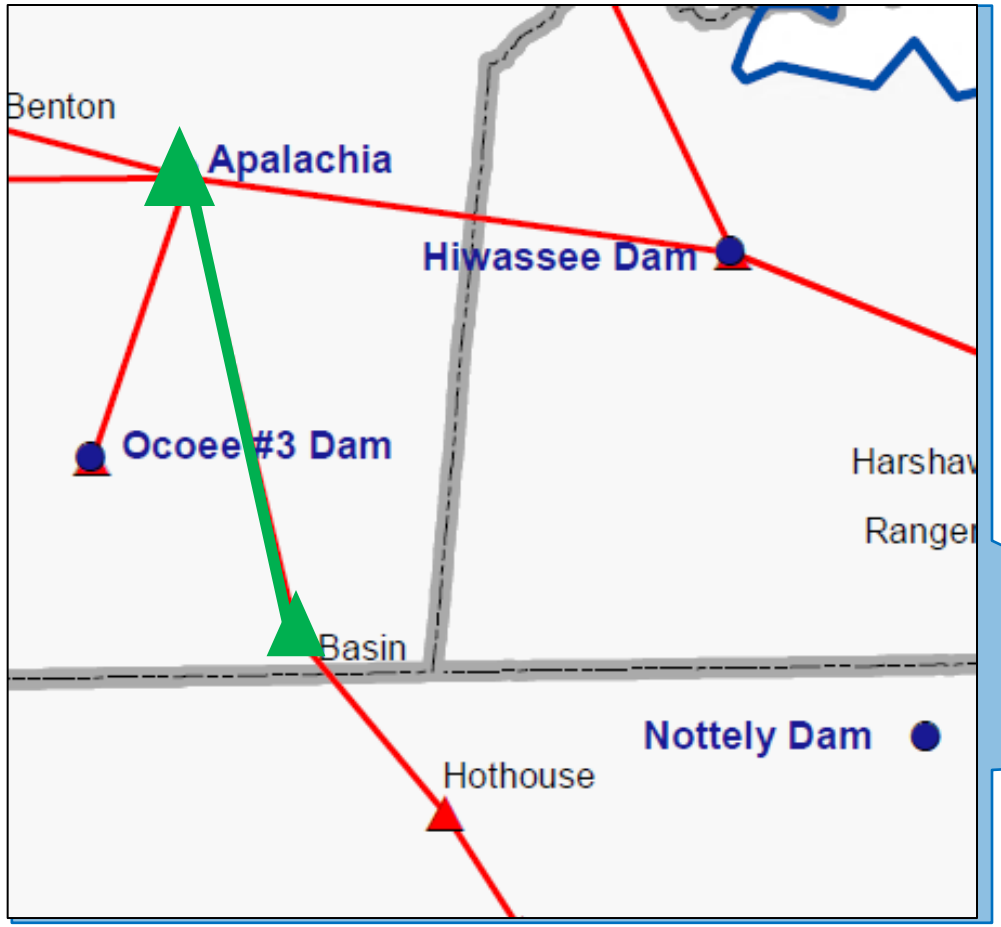


TVA Balancing Authority Area

TVA – 9

- **2025**

APALACHIA - BASIN RECONDUCTOR/UPRATE

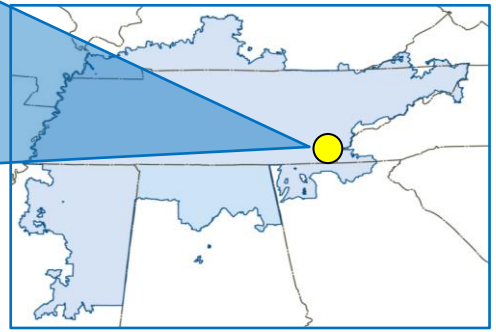


DESCRIPTION:

– Reconductor the 8.4 miles of ACSR 477, replace a wave trap at Basin, and reset a CT at Apalachia.

SUPPORTING STATEMENT:

– The Apalachia - Basin 161 kV transmission line overloads under contingency.

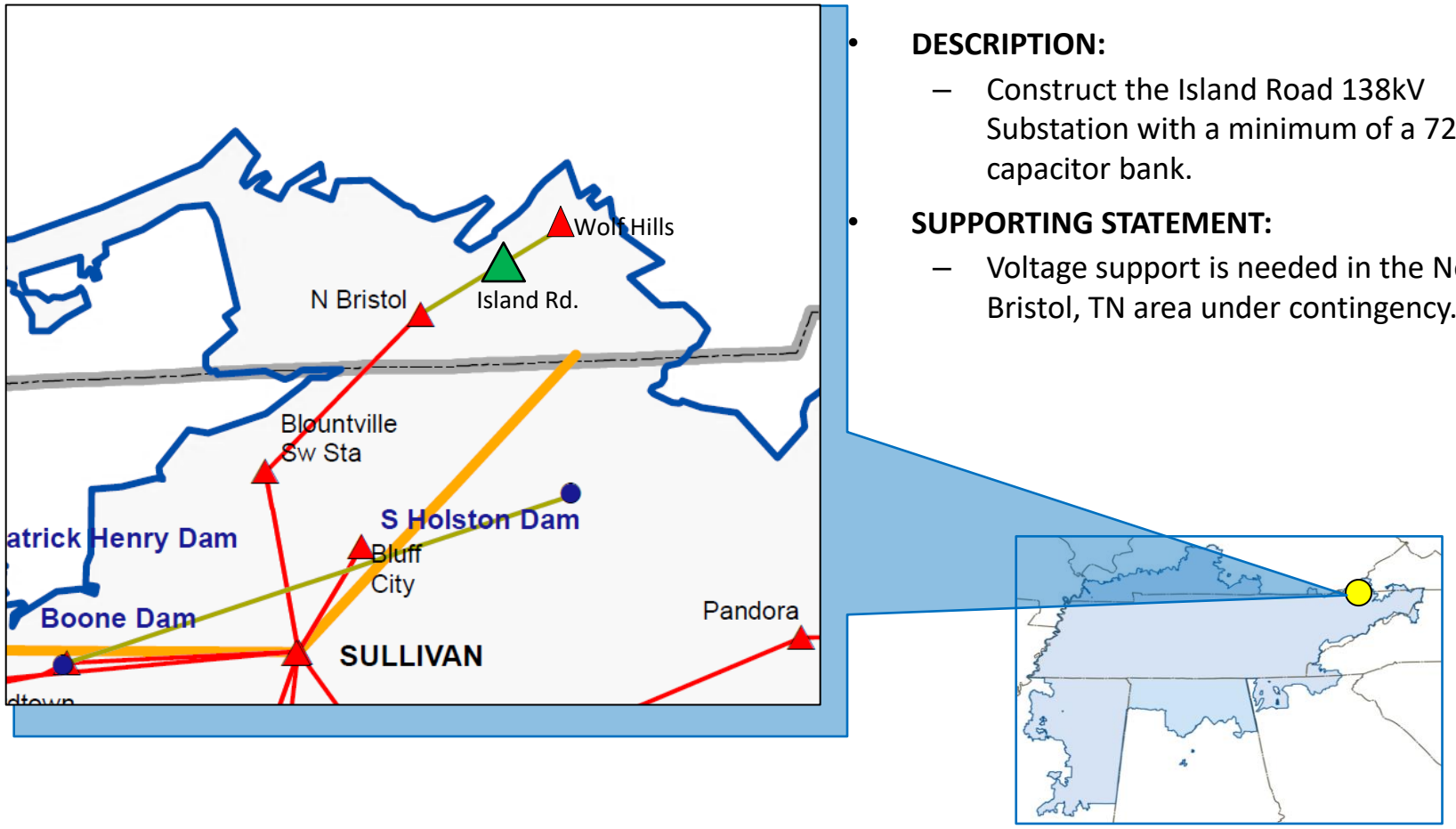


TVA Balancing Authority Area

TVA – 10

- **2025**

ISLAND RD 138KV CAPACITOR BANK



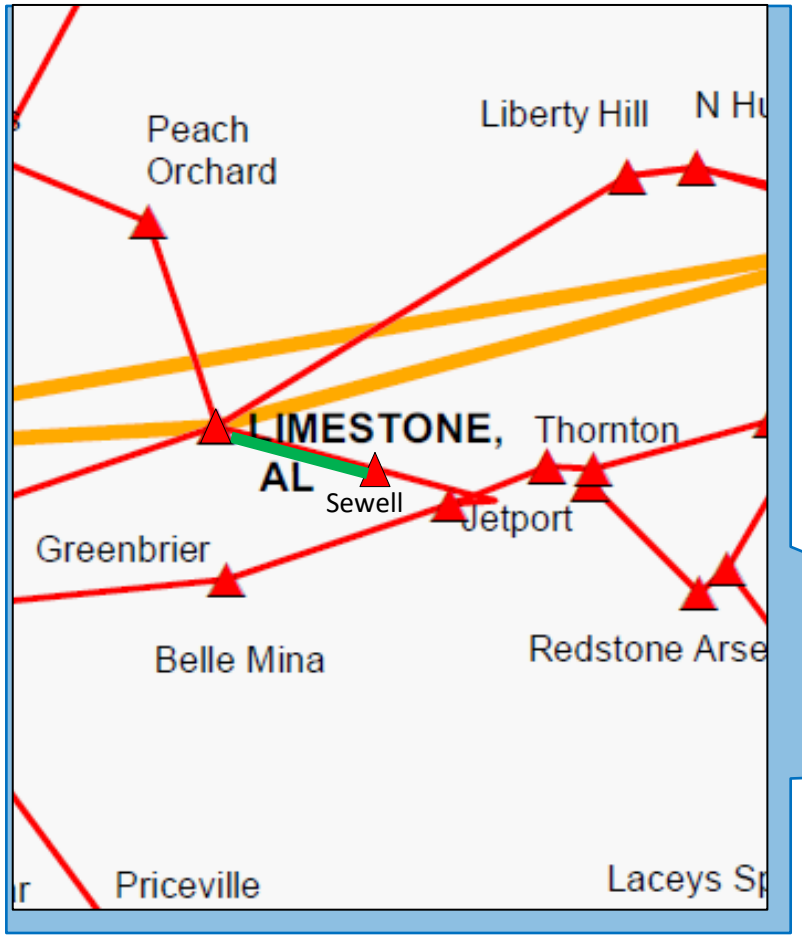
- **DESCRIPTION:**
  - Construct the Island Road 138kV Substation with a minimum of a 72MVAR capacitor bank.
- **SUPPORTING STATEMENT:**
  - Voltage support is needed in the North Bristol, TN area under contingency.

TVA Balancing Authority Area

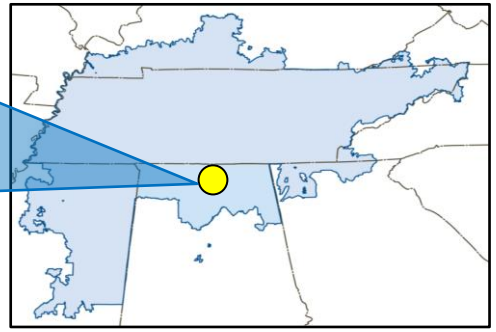
TVA – 11

- **2026**

LIMESTONE – SEWELL 161 KV #2 TRANSMISSION LINE



- **DESCRIPTION:**
  - Construct approximately 2.1 miles of 161 kV transmission line with 2034 ACSR at 100°C on the existing Limestone - Sewell 161 kV double circuit towers.
- **SUPPORTING STATEMENT:**
  - Additional thermal capacity and voltage support is needed in the Huntsville, AL area under contingency.

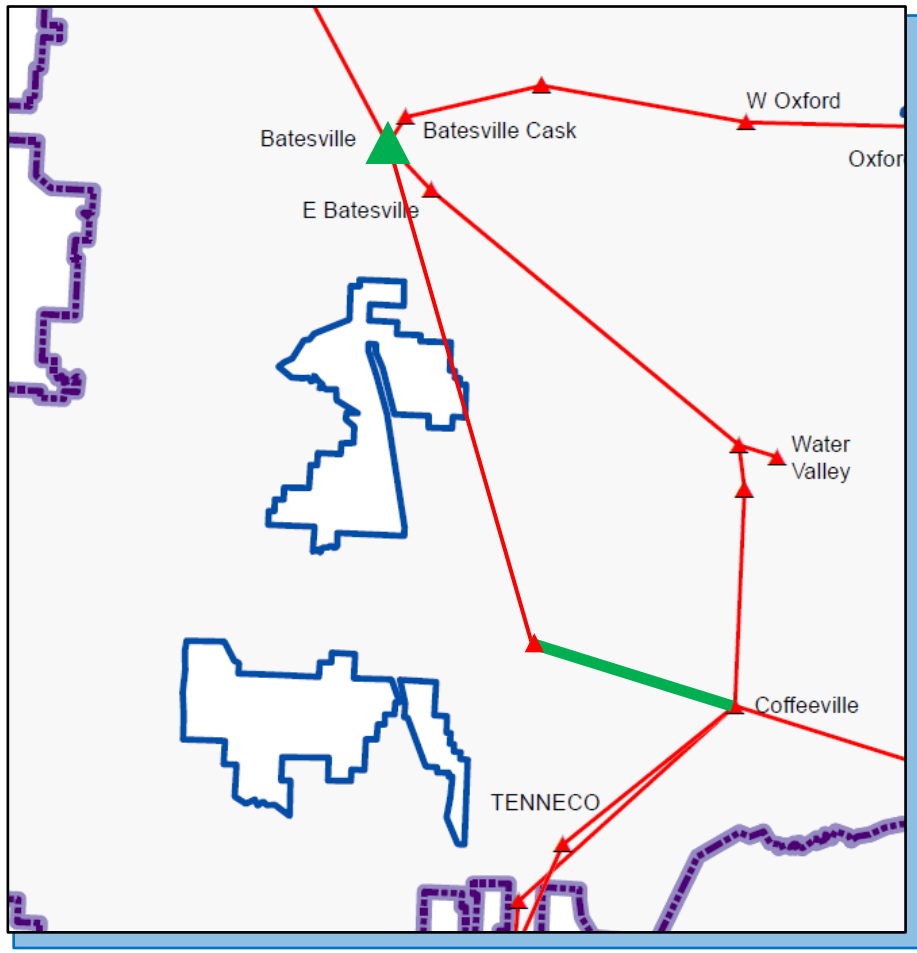


TVA Balancing Authority Area

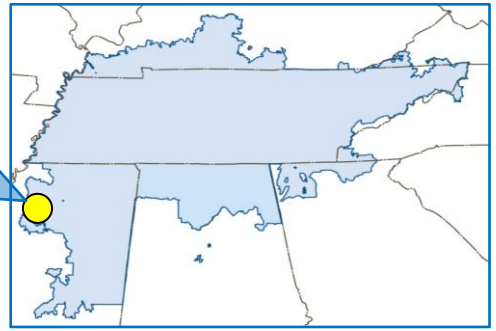
TVA – 12

- **2026**

N. OAKLAND – COFFEEVILLE 161 KV TRANSMISSION LINE



- **DESCRIPTION:**
  - Construct approximately 18.0 miles of new 161kV transmission line from North Oakland - Coffeeville using 954 at 100°C and upgrade terminal equipment to 472 MVA at Batesville 161 kV.
- **SUPPORTING STATEMENT:**
  - Multiple 161 kV transmission lines overload under contingency.

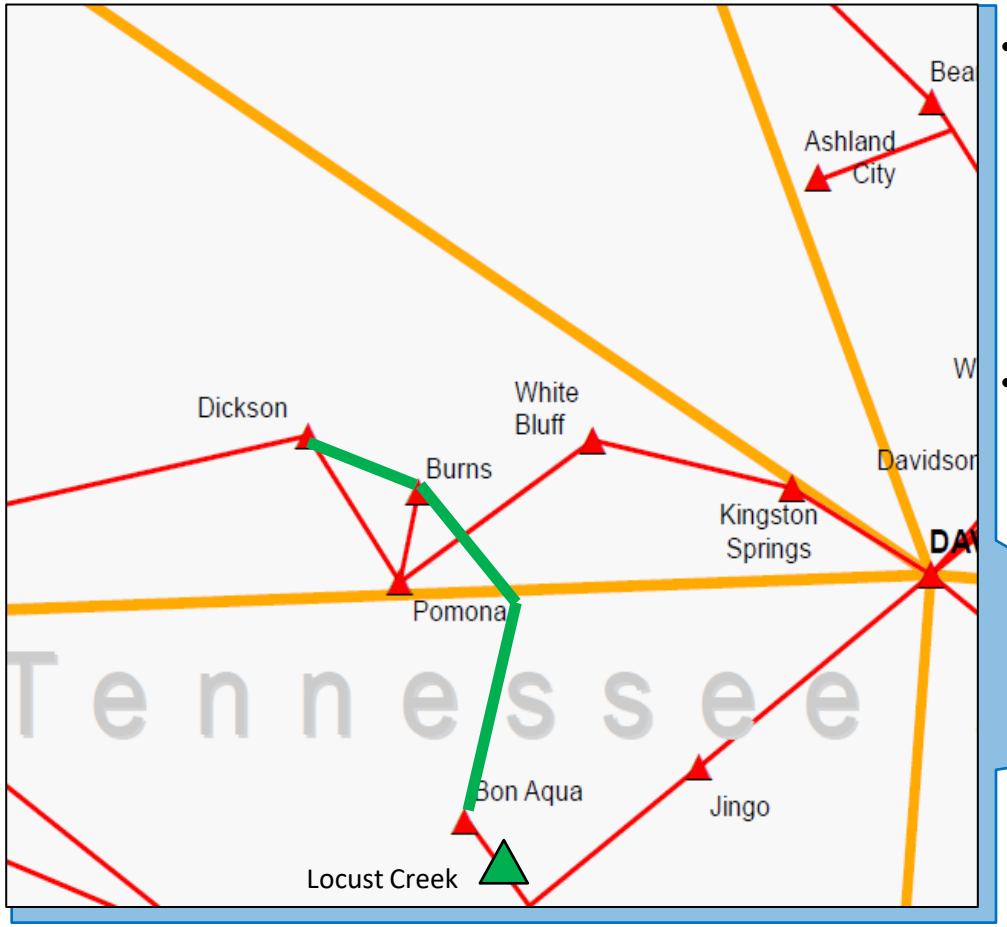


TVA Balancing Authority Area

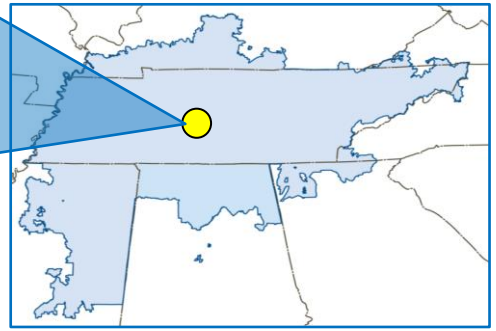
TVA – 13

- **2026**

DICKSON 161 KV AREA IMPROVEMENT



- **DESCRIPTION:**
  - Construct approximately 19.5 miles of new 161 kV transmission line from Bon Aqua to Burns, construct approximately 4.3 miles new 161 kV double circuit into Dickson, and construct a new Locust Creek 161 kV Substation.
- **SUPPORTING STATEMENT:**
  - Voltage support is needed in the Dickson, TN area under contingency.

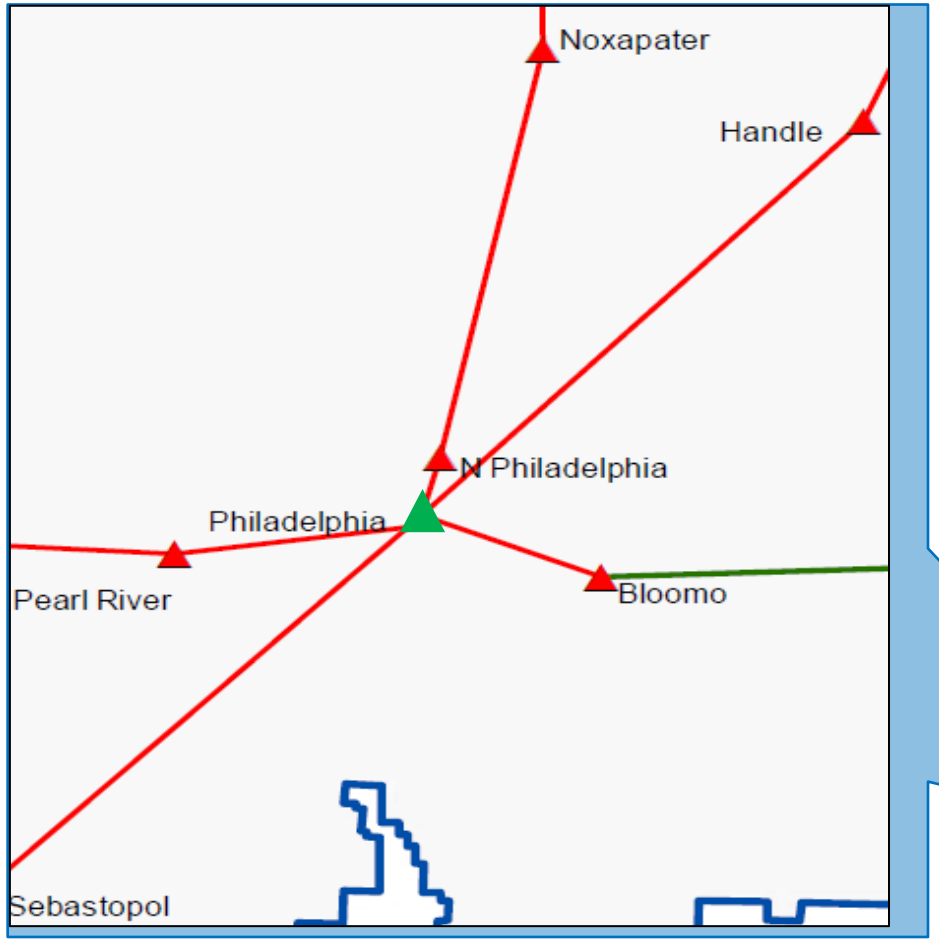


TVA Balancing Authority Area

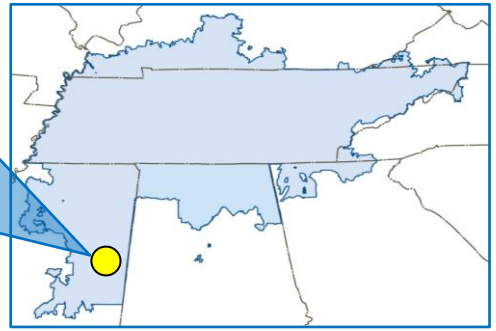
TVA – 14

- **2026**

PHILADELPHIA REACTOR



- **DESCRIPTION:**
  - Install three 27MVAR reactors at the Philadelphia 161kV Substation.
- **SUPPORTING STATEMENT:**
  - Voltage support is needed in TVA's Mississippi area under contingency.

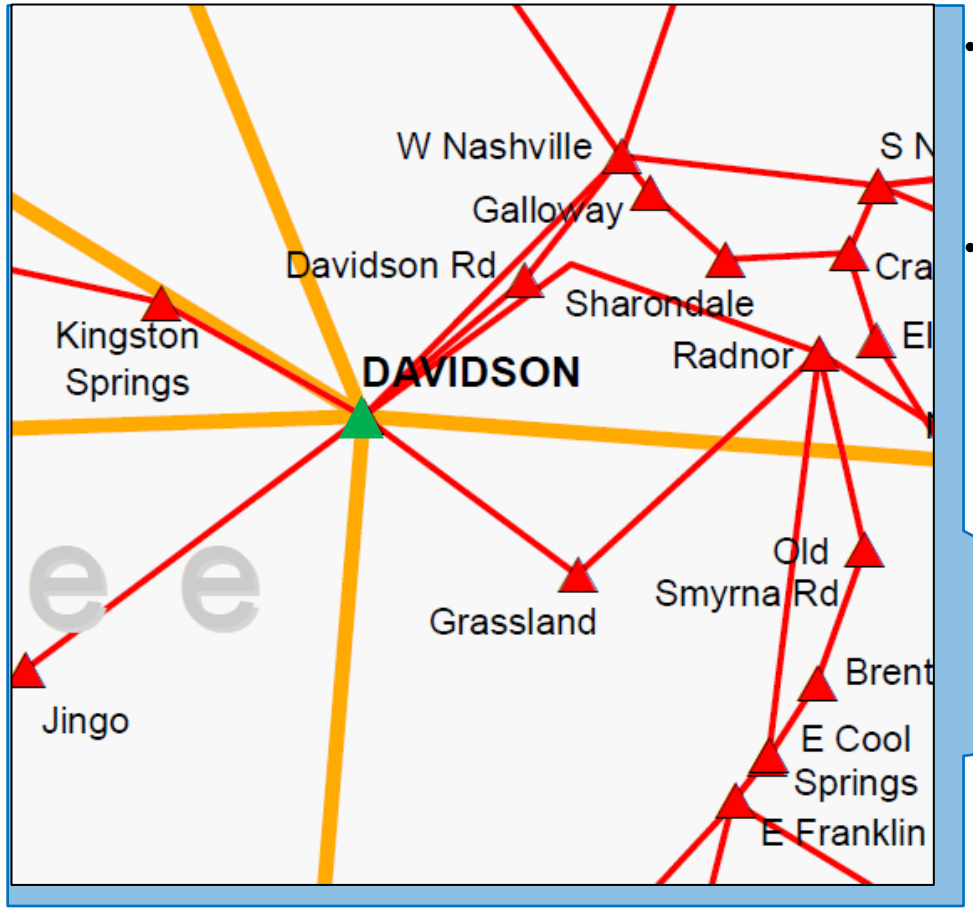


TVA Balancing Authority Area

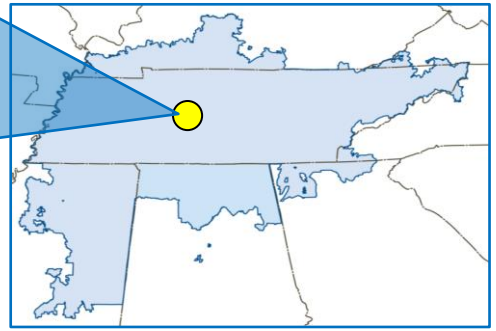
TVA – 15

- **2027**

DAVIDSON 500KV SWITCH HOUSE



- **DESCRIPTION:**
  - Construct a new 500 kV switch house with all new assets and replace aging assets in the Davidson Yard.
- **SUPPORTING STATEMENT:**
  - Additional thermal capacity and voltage support is needed in the Davidson County, TN area under contingency.

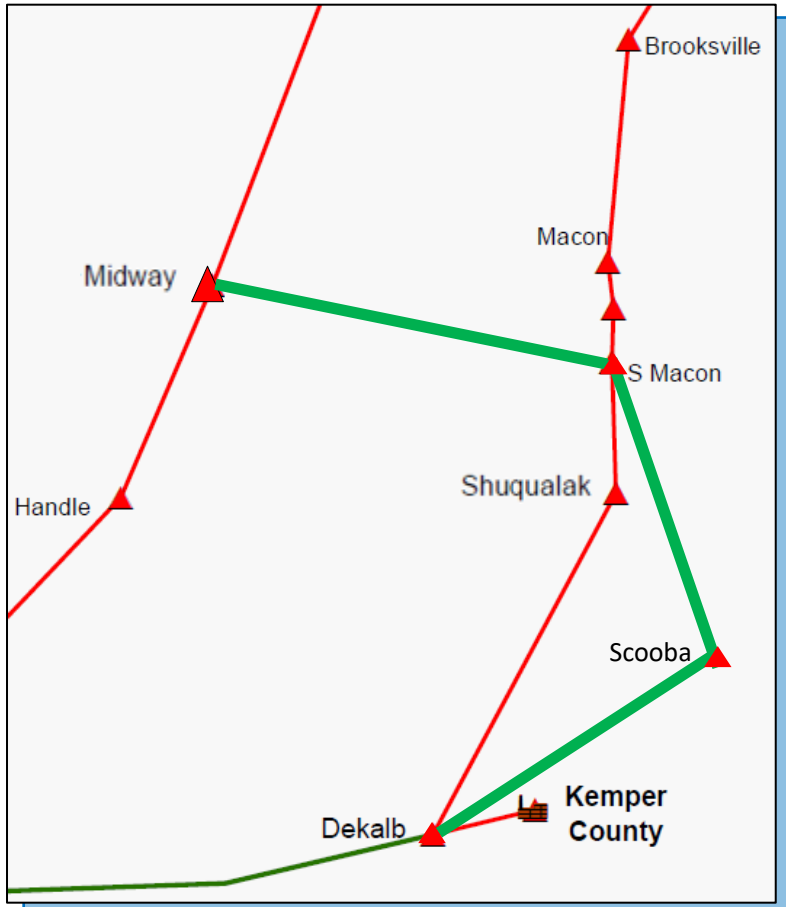


TVA Balancing Authority Area

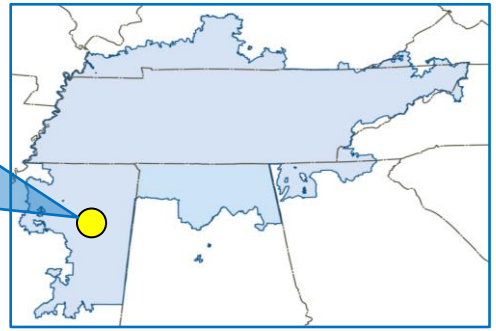
TVA – 16

- **2027**

MIDWAY - S MACON - DEKALB 161 KV TRANSMISSION LINE



- **DESCRIPTION:**
  - Construct approximately 20 miles new 161 kV transmission line from Midway to S Macon and approximately 31.3 miles new 161 kV transmission line from S Macon to Dekalb via Scooba.
- **SUPPORTING STATEMENT:**
  - Voltage support is needed in TVA's Mississippi area under contingency.

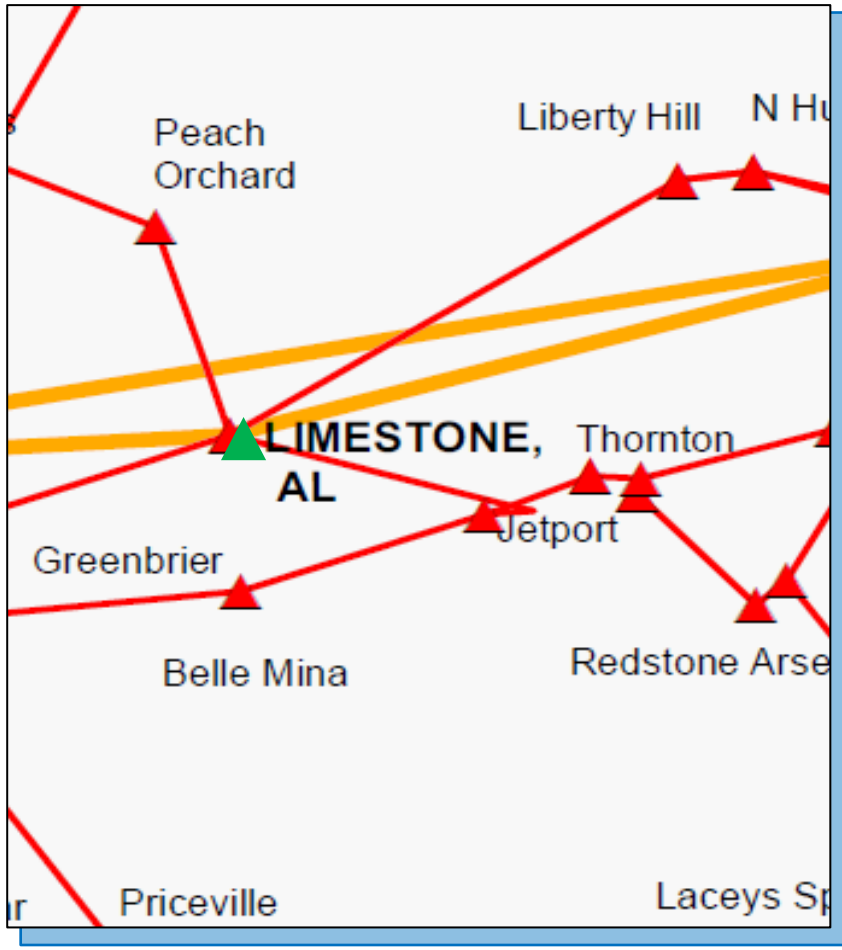


TVA Balancing Authority Area

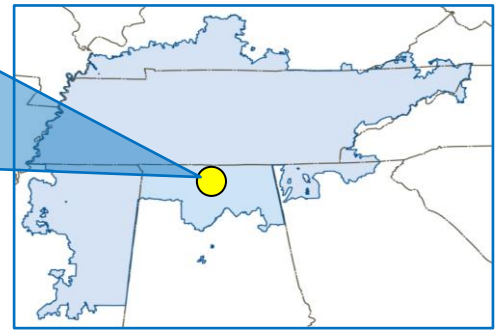
TVA – 17

- **2028**

LIMESTONE 500KV DOUBLE BREAKER AND LOOP



- **DESCRIPTION:**
  - Reconfigure the 500kV yard at Limestone by adding breakers and loop in the Browns Ferry - Maury 500kV TL.
- **SUPPORTING STATEMENT:**
  - Area overloads are observed under contingency.



SERTP

Regional Transmission Analyses Overview

Regional Transmission Analysis

Regional Transmission Analyses Overview

- Assess if the then current regional transmission plan addresses the Transmission Provider's transmission needs

- Assess whether there may be more efficient or cost effective transmission projects to address transmission needs

Regional Transmission Analysis

Assessment of Current Regional Plan

- **SERTP Sponsors developed 6 coordinated regional models***
- **Models include latest transmission planning model information within the SERTP region**
- **Contingency analysis was performed to identify potential constraints that may result from the regional coordination of latest input assumptions**

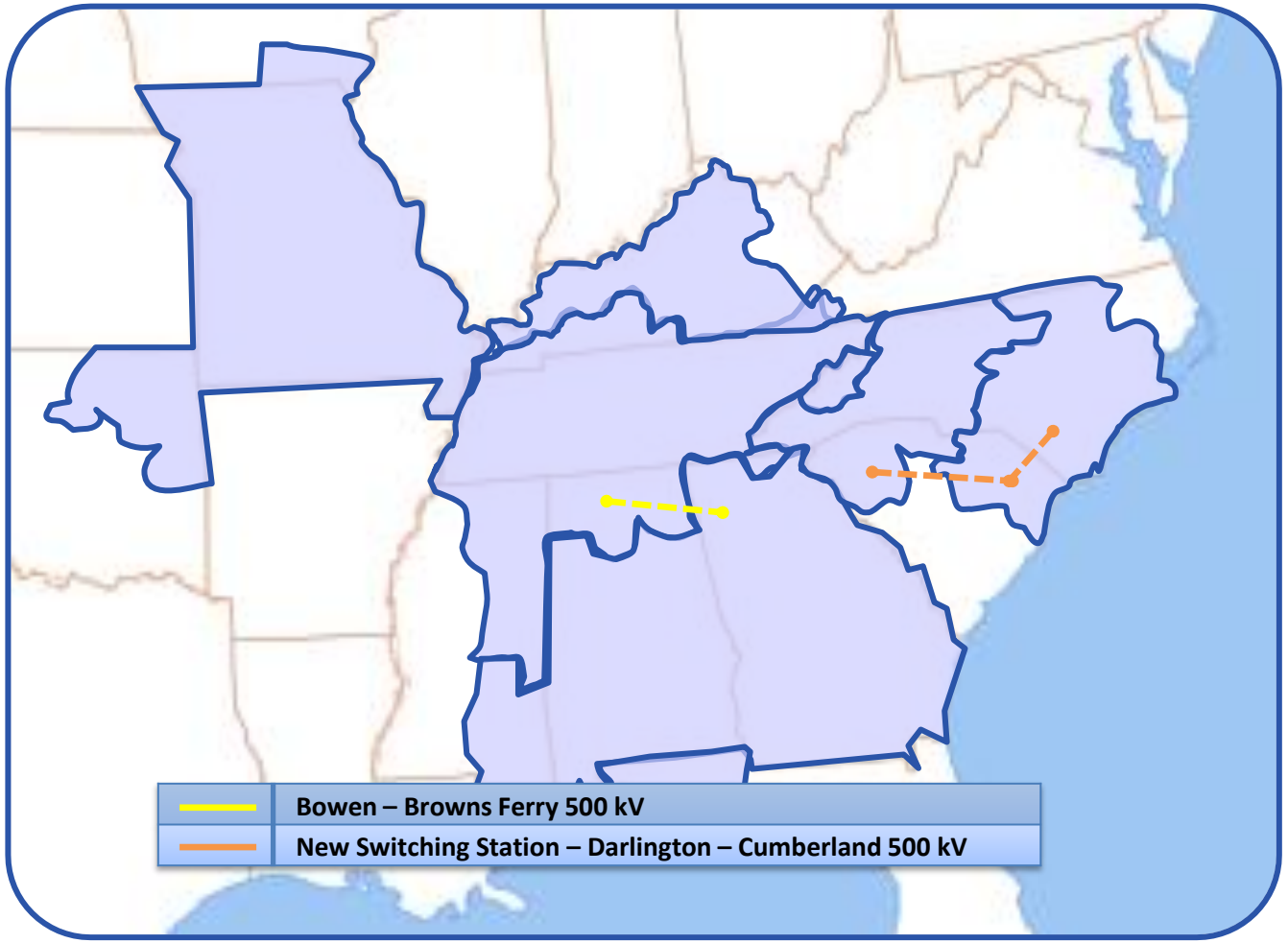
*Available on the secure area of the SERTP website upon satisfying access requirements

No.	Season	Year
1	Summer	2024
2		2027
3		2032
4	Shoulder	2027
5	Winter	2027
6		2032

Southeastern Regional TRANSMISSION PLANNING

Regional Transmission Analysis

List of Alternative Regional Transmission Projects



Southeastern Regional TRANSMISSION PLANNING

Regional Transmission Analysis

Preliminary List of Alternative Regional Transmission Projects

Alternative Regional Transmission Projects	Miles	From	To
		BAA (State)	BAA (State)
New Station on Oconee to Newport (DEC) – Cumberland (DEP)	200	DEC (SC)	DEP (NC)
Bowen (SOCO) – Browns Ferry (TVA)	175	SOCO (GA)	TVA (AL)

2022 Regional Transmission Analyses

Regional Transmission Analyses Overview

- **No significantly constrained transmission facilities were identified in the assessment of the current regional transmission plan.**

- **No evaluated transmission project alternatives were found to be more efficient or cost effective.**
  - Estimated cost of transmission project alternatives significantly outweighed potential benefits.

- **The regional transmission analyses summary is posted on the SERTP website.**

SERTP

Miscellaneous Updates

Regional Planning Updates

- Version 3 SERTP Regional Models available on SERTP Website

- Interregional Data Exchange:
  - Exchanged the latest transmission models for the ten year planning horizon with all inter-regional entities

- FRCC Coordination
  - SBAA members (Southern Company, PowerSouth, GTC, and MEAG) met with members of the FRCC on November 29th to review results for the annual Transfer Capability Study. There are no interregional projects recommended at this time

FPLNW Integration into FRCC

- Florida Power & Light North West (“FPLNW”, formerly known as “GULF Power”) provided notice of its intention to withdraw from the SERTP – September 12, 2022.

- FPLNW obtained the necessary corporate approvals and approval of the Federal Energy Regulatory Commission(“FERC”) to integrate into FRCC. FPLNW will become a member of Florida Reliability Coordinating Council, Inc. (“FRCC”) effective December 31, 2022.

Upcoming 2023 SERTP Process

- **SERTP 1st Quarter – *1st RPSG Meeting & Interactive Training Session***

  March 2023

  – Form Regional Planning Stakeholder Group "RPSG"
  – Select Economic Planning Studies
    - RPSG Economic Study Request Form
  – Interactive Training Session

- **SERTP 2nd Quarter – *Preliminary Expansion Plan Meeting***

  June 2023

  – Review Modeling Assumptions
  – Preliminary 10 Year Expansion Plan
  – Stakeholder Input & Feedback Regarding the Plan

Upcoming 2023 SERTP Process

- **SERTP 3rd Quarter – *2nd RPSG Meeting***

  September 2023
  - Preliminary Results of the Economic Studies
  - Stakeholder Input & Feedback Regarding the Study Results
  - Discuss Previous Stakeholder Input on the Expansion Plan

- **SERTP 4th Quarter – *Annual Transmission Planning Summit & Input Assumptions***

  December 2023
  - Final Results of the Economic Studies
  - Regional Transmission Plan
  - Regional Analyses
  - Stakeholder Input on the 2024 Transmission Model Input Assumptions

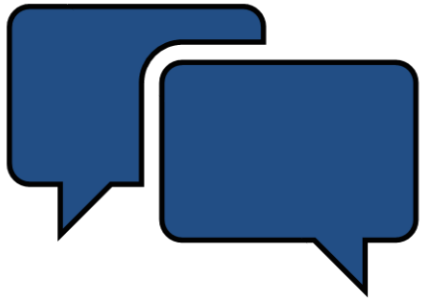
Stakeholder Reminders

- Stakeholders may begin suggesting Economic Studies for the 2023 planning cycle. The RPSG formed at the 2023 SERTP 1st Quarter Meeting will select up to five economic planning studies. The Economic Study Request Form can be found on the SERTP website.

- Stakeholders may submit possible transmission needs driven by Public Policy Requirements. These PPR requests are due 60 days after the Q4 meeting. The PPR Form can be found on the SERTP website.

- Any pre-qualified Transmission Developers may submit RCAP Proposals no later than 60 days after the Q4 meeting.

2022 SERTP



Questions?

www.southeasternrtp.com