

## SERTP – 2<sup>nd</sup> Quarter Meeting

### *Preliminary Expansion Plan Meeting*

June 27<sup>th</sup>, 2024

LG&E and KU Energy

Louisville, KY




## Process Information

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- 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](http://www.southeasternrtp.com)

## Housekeeping

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- This is a hybrid meeting.
  - **Virtual attendees**, please use the  function to ask questions.
  - **In-person attendees**, please raise your  to indicate you have a question, wait to be called on and use the  to ensure all participants can hear.
- All attendees, please state your name and company when asking and answering questions.
- We will take for a 30-minute lunch break at 12:00 noon EST

## Announcements – FERC Order 1920

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FERC Order 1920, Building for the Future Through Electric Regional Transmission Planning and Cost Allocation, was issued on May 13, 2024, and will become effective on August 12, 2024.

The Order is long and complex. SERTP Sponsors are in the in the beginning stages of working on compliance.

Stakeholder outreach will be a part of the process; however, SERTP Sponsors are not prepared to discuss our approach to compliance at this time.

## Announcements - Carolinas Transmission Planning Collaborative

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In response to stakeholder questions regarding the Duke Energy Carolinas and Duke Energy Progress local transmission planning process, also referred to as the Carolinas Transmission Planning Collaborative (CTPC), Duke Energy will engage with those stakeholders to provide more information about the CTPC.

Kindly remember that the CTPC is not a part of the SERTP; having a separate stakeholder engagement and participation process. Additional questions about the CTPC should be directed to the relevant parties of the CTPC.

## Agenda

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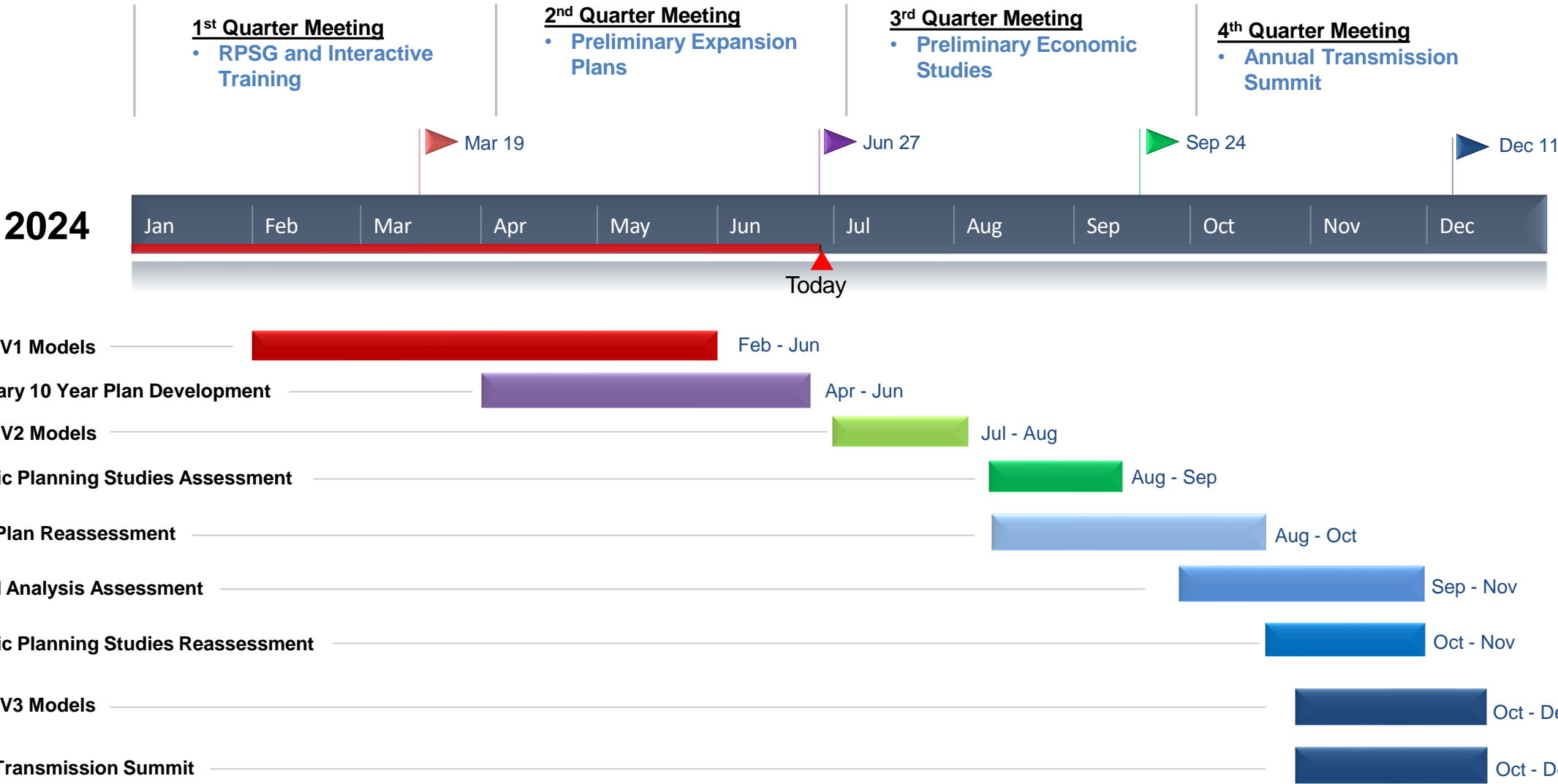
- **Regional Expansion Plan Process**
  - Annual Process Overview
- **Preliminary 10 Year Transmission Expansion Plan**
  - Regional Model Assumptions
    - Load Forecast
    - Generation Assumptions
    - Transmission System Topology
- **Miscellaneous Updates**
- **Next Meeting Activities**

SERTP

## Regional Transmission Expansion Plan Process

# 2024 SERTP

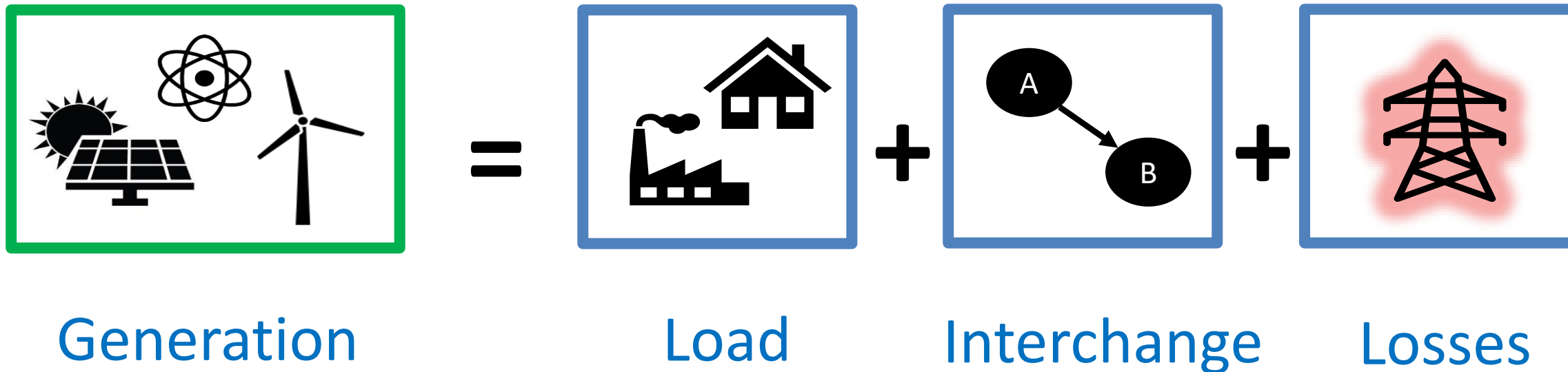
## 10 Year SERTP Regional Transmission Expansion Plan Process





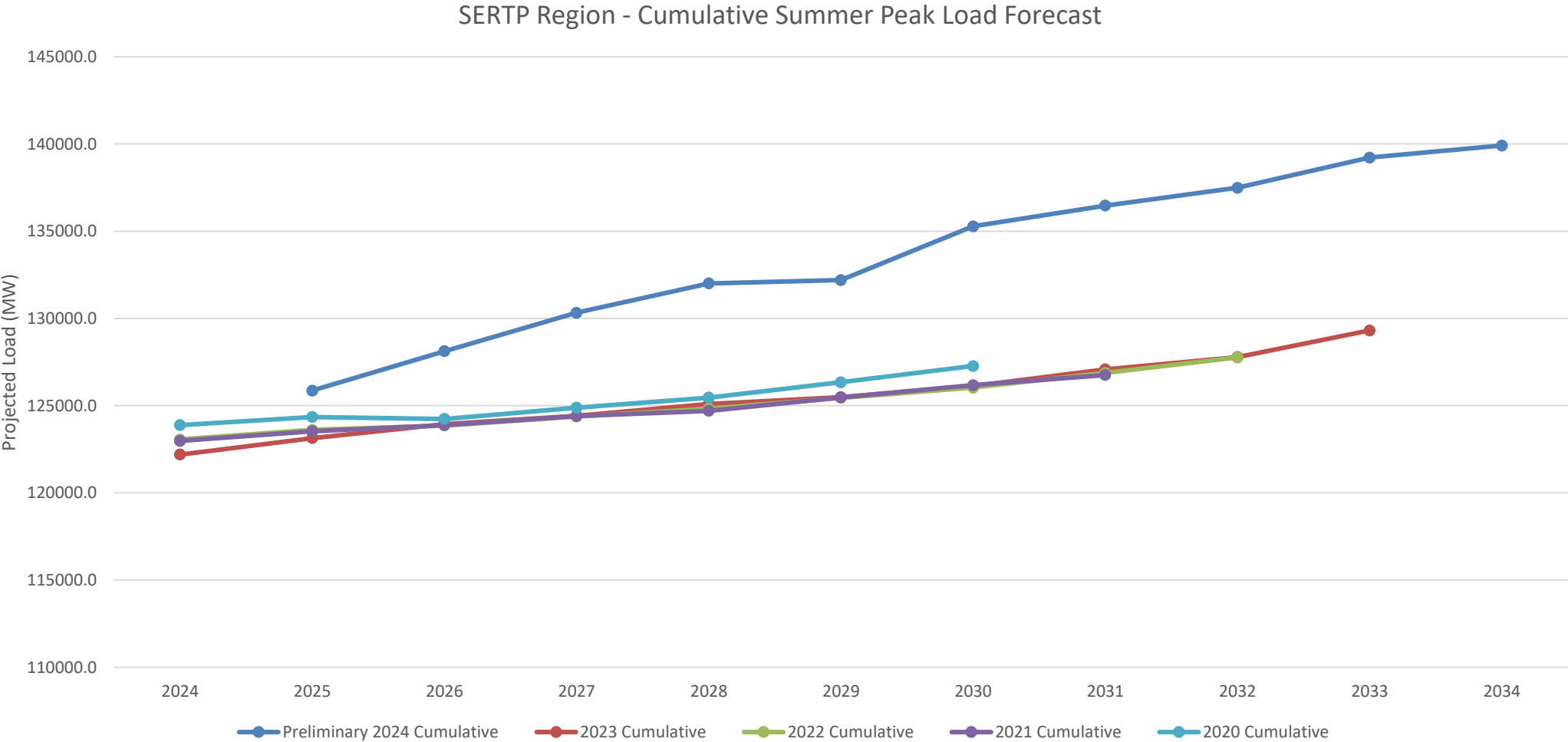
## SERTP Regional Model Assumptions

## Regional Model Assumptions

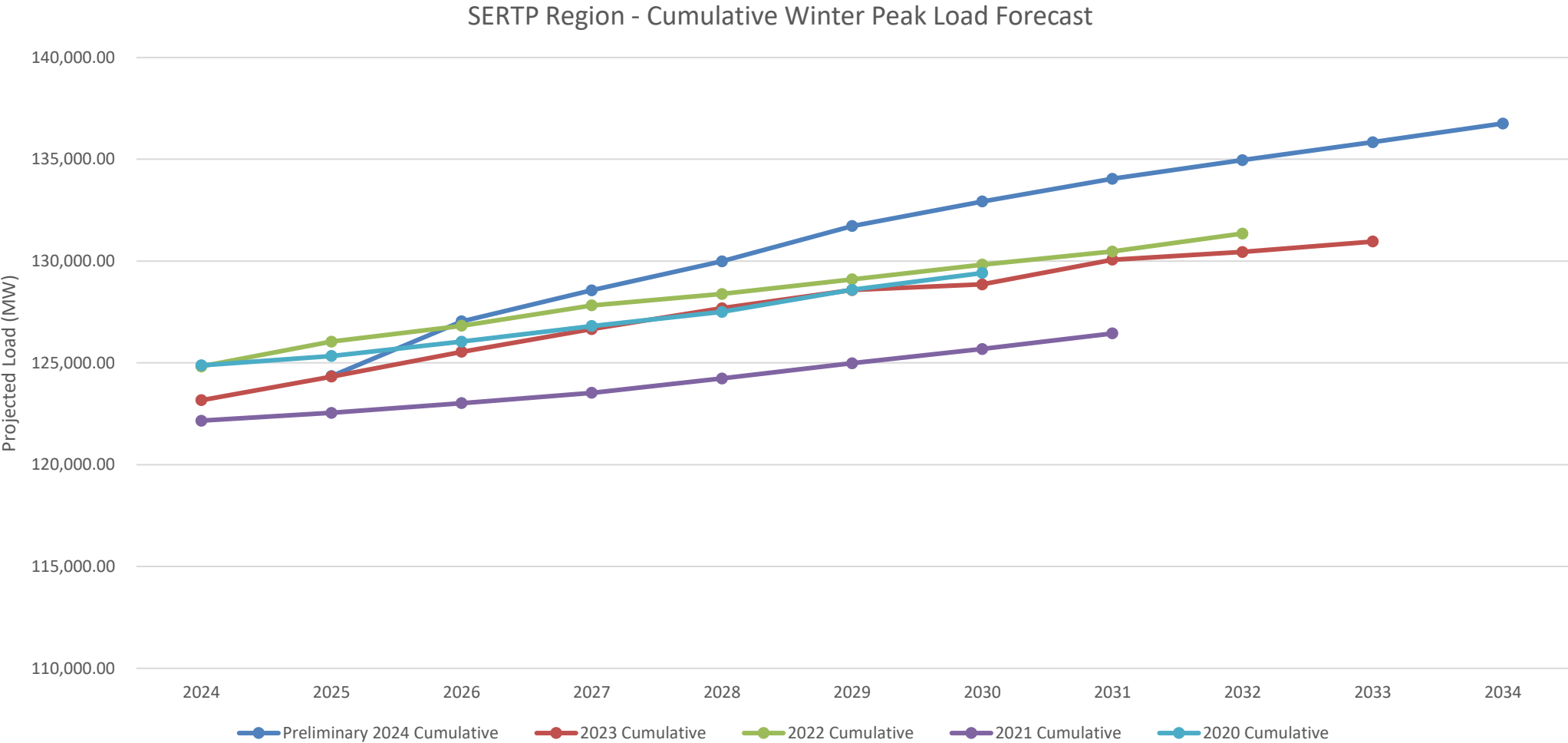


- Projected load for each year and season
- Area Interchange of long-term firm commitments across the interface
- Losses produced in serving that load
  - Transmission Lines & Transformers
    - 10 Year Transmission Expansion Plan
- Generation needed to balance all of the above

# SERTP Cumulative Summer Peak Load Forecast



# SERTP Cumulative Winter Peak Load Forecast



SERTP

## Preliminary Transmission Expansion Plans

## Criteria For Projects in Presentation

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- **For the full list of projects, the 2024 Preliminary Expansion Plan Report is posted on the SERTP website**
  - [Report](#)
- **Criteria for projects included in today's presentation:**
  - New\Alternative\Grid Enhancing Technology
  - 161kV-300kV: Projects ~20miles or longer
  - 161kV and above: New stations
  - 300kV and above: All projects
  - Tie lines: all projects

## Preliminary Transmission Expansion Plan

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The projects described in this presentation represent the preliminary ten (10) year transmission expansion plan. The transmission expansion plan is periodically reviewed and may be revised due to changes in assumptions. This presentation does not represent a commitment to build for projects listed in the future.

## Southeastern Regional Transmission Planning (SERTP)



### PRELIMINARY 10 YEAR TRANSMISSION EXPANSION PLANS:

**AECI**

**Duke Energy Carolinas**

**Duke Energy Progress**

**LG&E/KU**

**PowerSouth**

**Southern Balancing Authority Area**

**TVA**



## AECI Balancing Authority Area 2024 Generation Assumptions

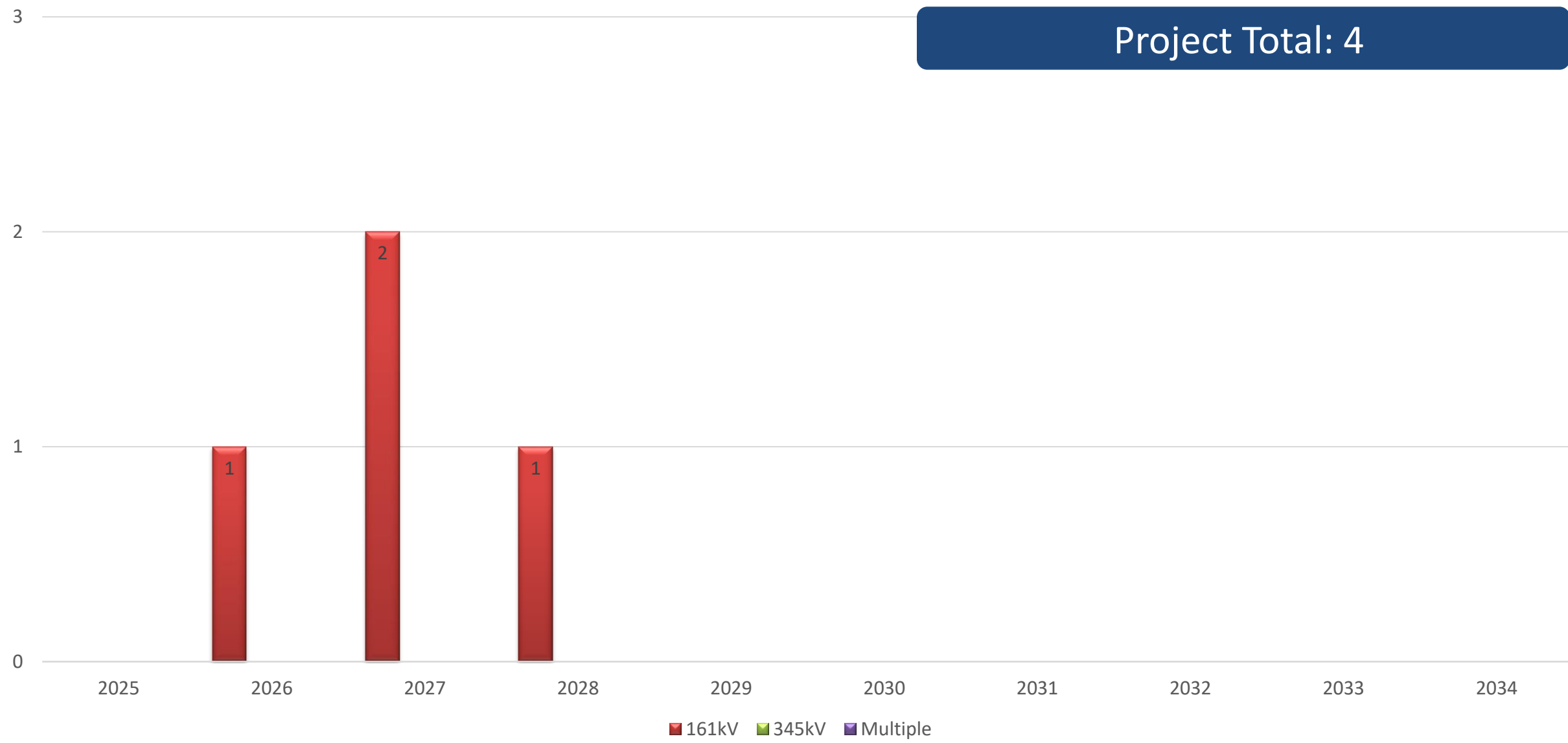
\* AECI has no generation assumptions expected to change throughout the ten-year planning horizon for the 2024 SERTP Process.

AECI Balancing Authority Area

Preliminary Transmission Expansion Plan

# AECI Project Summary

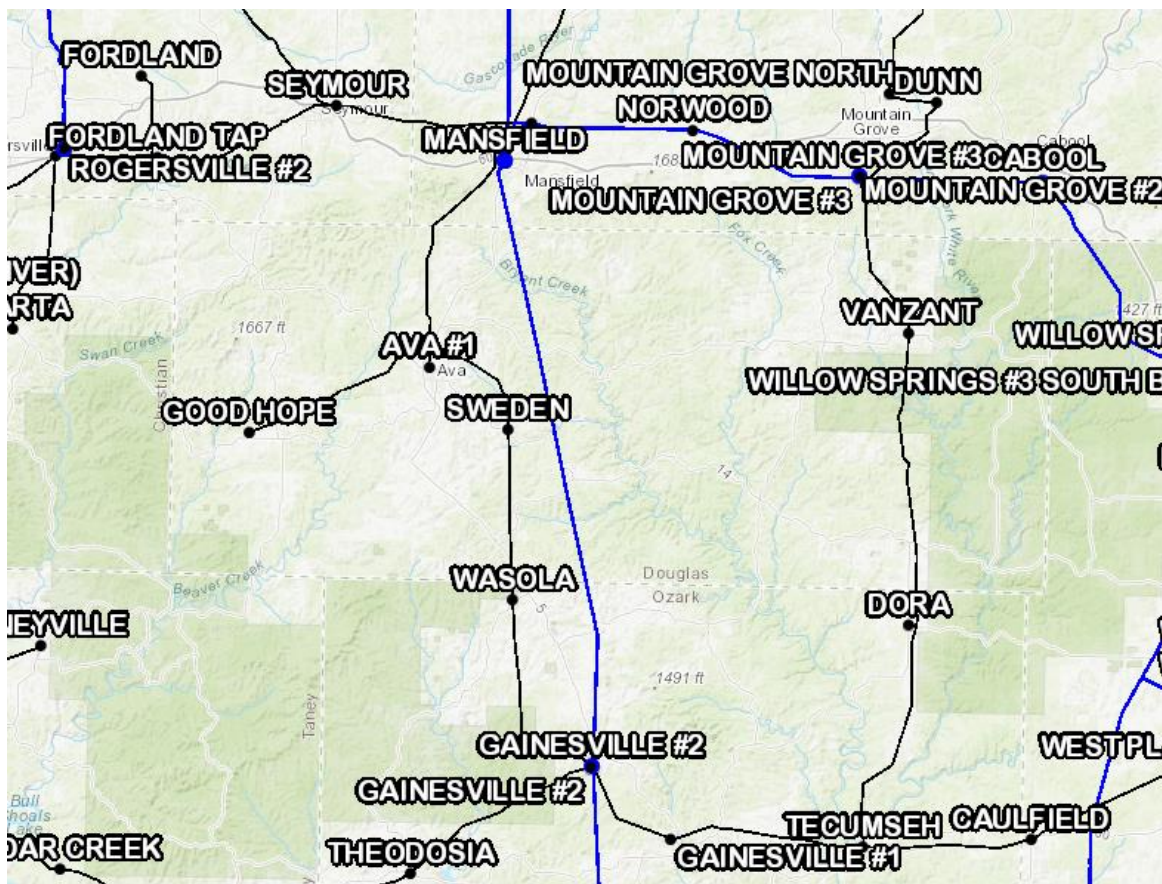
Project Total: 4



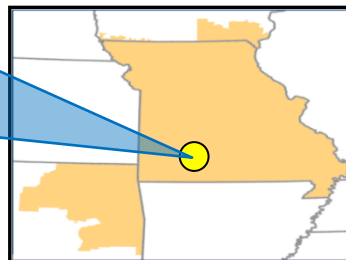
## AECI – 1

• 2027

### Mansfield – Gainesville #2 –Bull Shoals 161 KV TRANSMISSION LINE



- **DESCRIPTION:**
  - Rebuild the 56-mile-long Mansfield - Gainesville #2 – Bull Shoals 161 kV line segment with 795 ACSR rated at 100C
- **SUPPORTING STATEMENT:**
  - The Mansfield – Gainesville – Bull Shoals 161 kV transmission segment overloads under contingency.

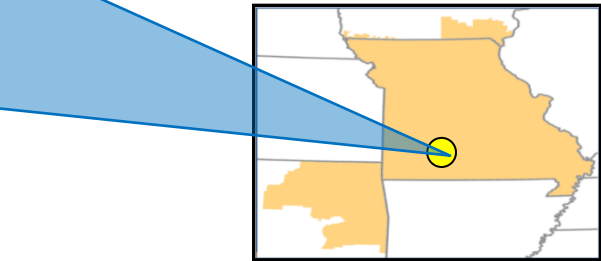
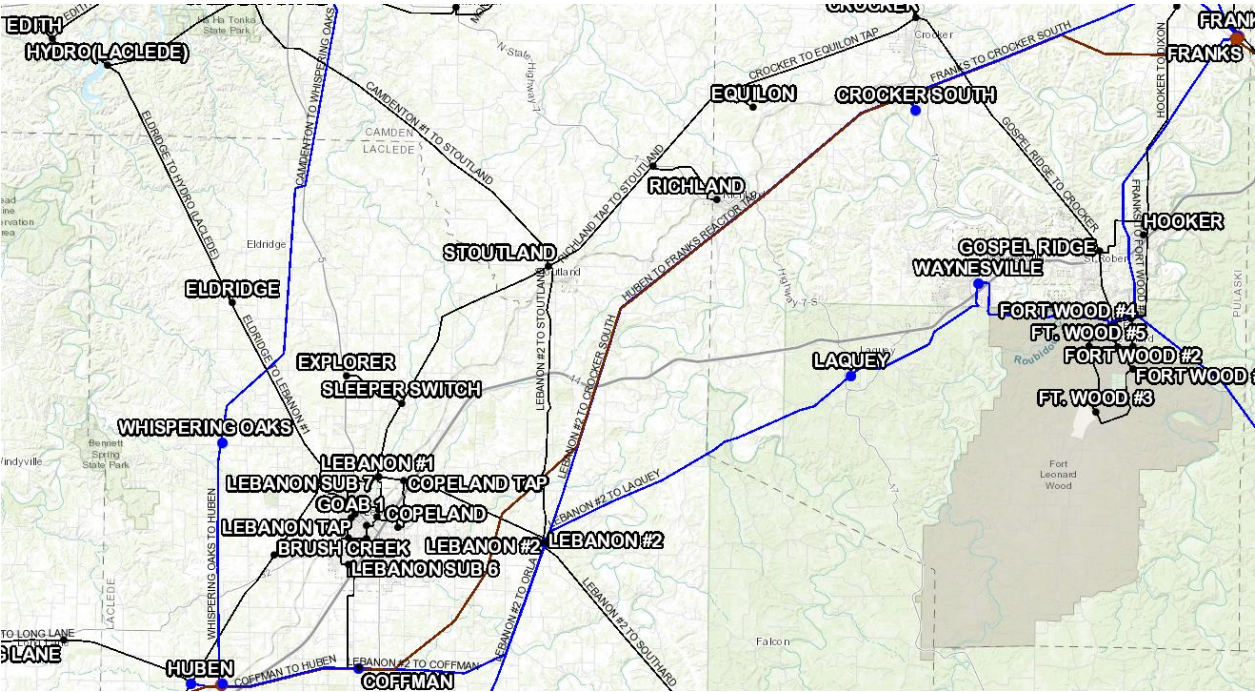


## AECI – 2

• 2026

### Lebanon – Crocker South 161 KV TRANSMISSION LINE

- **DESCRIPTION:**
  - Rebuild the 24.48-mile-long Crocker South – Lebanon 161 kV line with 795 ACSR rated at 100C
- **SUPPORTING STATEMENT:**
  - The Crocker South – Lebanon 161 kV Transmission Line overloads under contingency



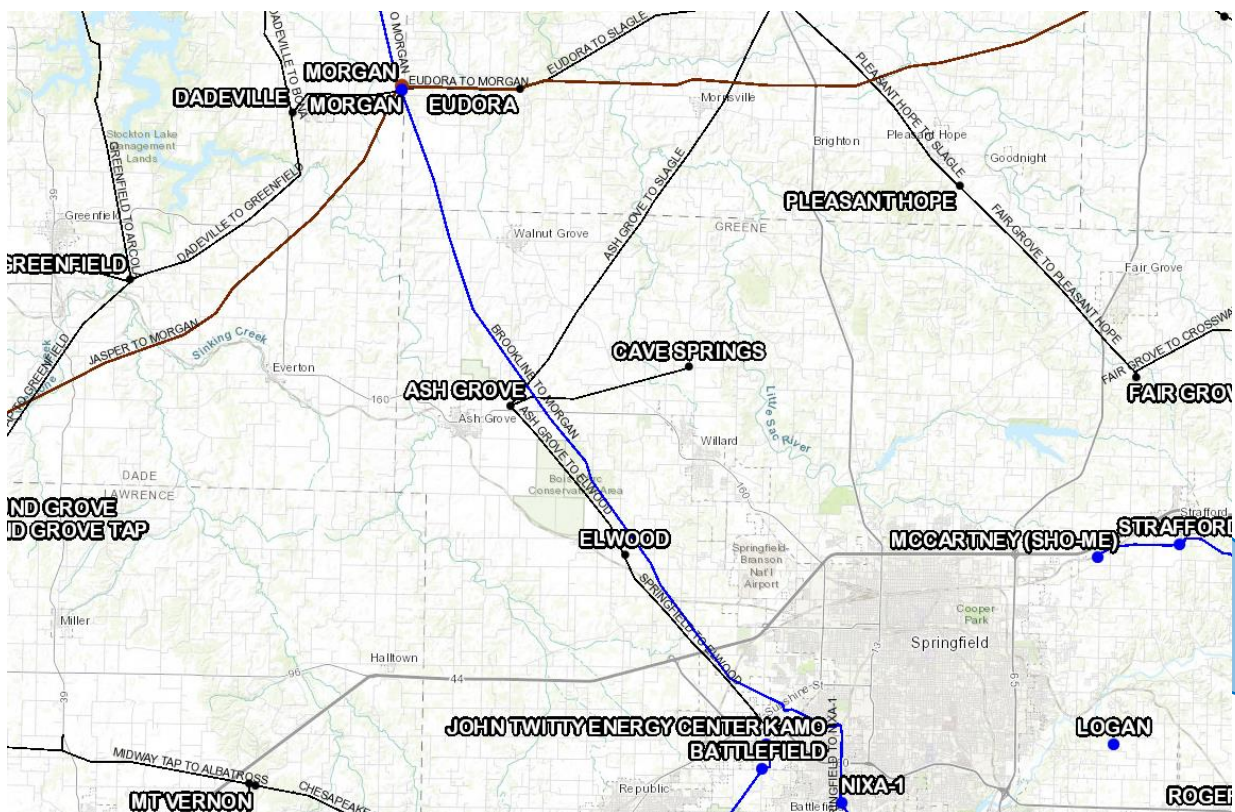


# AECI Balancing Authority Area

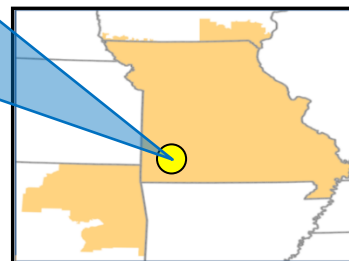
## AECI – 3

• 2028

### Morgan – Brookline 161 KV TRANSMISSION LINE



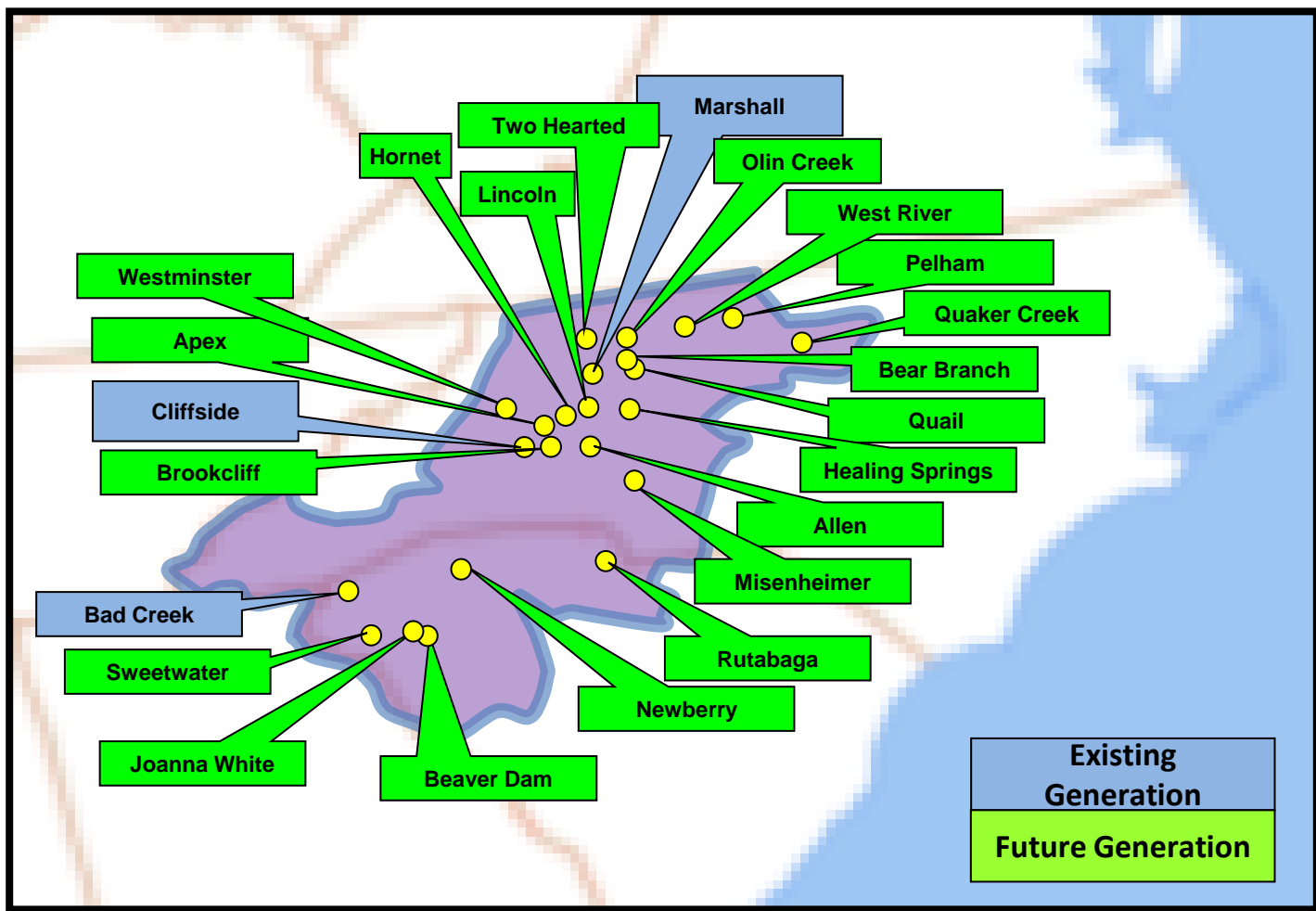
- **DESCRIPTION:**
  - Rebuild the 26.49-mile-long Morgan-Brookline 161 kV line with 795 ACSR rated at 100C
- **SUPPORTING STATEMENT:**
  - The Morgan - Brookline 161 kV transmission line section overloads under contingency.



## DUKE ENERGY CAROLINAS Balancing Authority Area 2024 Generation Assumptions

## DUKE ENERGY CAROLINAS – Generation Assumptions

The following diagram depicts the location of generation assumptions that change throughout the ten year planning horizon for the 2024 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 2024 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Allen 1	Coal	0	--	--	--	--	--	--	--	--	--
Allen 1 Proxy <sup>1</sup>	Proxy Generation	--	--	--	167	167	167	167	167	167	167
Allen 5	Coal	0	--	--	--	--	--	--	--	--	--
Cliffside 5	COAL	574	574	574	574	574	574	0	--	--	--
Cliffside 5 Proxy <sup>1</sup>	Proxy Generation	--	--	--	--	--	--	574	574	574	574
Lincoln 17	Natural Gas	402	402	402	402	402	402	402	402	402	402
Marshall 1	COAL	388	388	388	388	0	--	--	--	--	--
Marshall 1 Replacement	Natural Gas	--	--	--	--	388	388	388	388	388	388
Marshall 2	COAL	392	392	392	392	0	--	--	--	--	--
Marshall 2 Replacement	Natural Gas	--	--	--	--	392	392	392	392	392	392
Marshall 3	Coal	705	705	705	705	705	705	705	0	--	--
Marshall 4	Coal	711	711	711	711	711	711	711	0	--	--
Allen	Storage	--	50	50	50	50	50	50	50	50	50
Apex	Solar	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9

1. Generators left in model in expectation of replacement generation through the Generation Replacement Request process.

# DEC Balancing Authority Area

## DEC – Generation Assumptions Continued

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2024 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Bad Creek 4	Pumped Storage	420	420	420	420	420	420	420	420	420	420
Bear Branch	Solar	--	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5
Beaverdam	Solar	--	42	42	42	42	42	42	42	42	42
Brookcliff	Solar	50	50	50	50	50	50	50	50	50	50
Healing Springs	Solar	--	--	55	55	55	55	55	55	55	55
Hornet	Solar	--	73	73	73	73	73	73	73	73	73
Joanna White	Solar	--	--	37.5	37.5	37.5	37.5	37.5	37.5	37.5	37.5
Misenheimer	Solar	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4
Newberry	Solar	--	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
Olin Creek	Solar	35	35	35	35	35	35	35	35	35	35
Pelham	Solar	32	32	32	32	32	32	32	32	32	32
Quail	Solar	--	30	30	30	30	30	30	30	30	30
Quaker Creek	Solar	--	35	35	35	35	35	35	35	35	35
Rutabaga	Solar	--	--	--	69.75	69.75	69.75	69.75	69.75	69.75	69.75
Sweetwater	Solar	--	--	34	34	34	34	34	34	34	34
Two Hearted	Solar	22	22	22	22	22	22	22	22	22	22
West River	Solar	--	40	40	40	40	40	40	40	40	40
Westminster	Solar	--	70	70	70	70	70	70	70	70	70

# DEC Balancing Authority Area

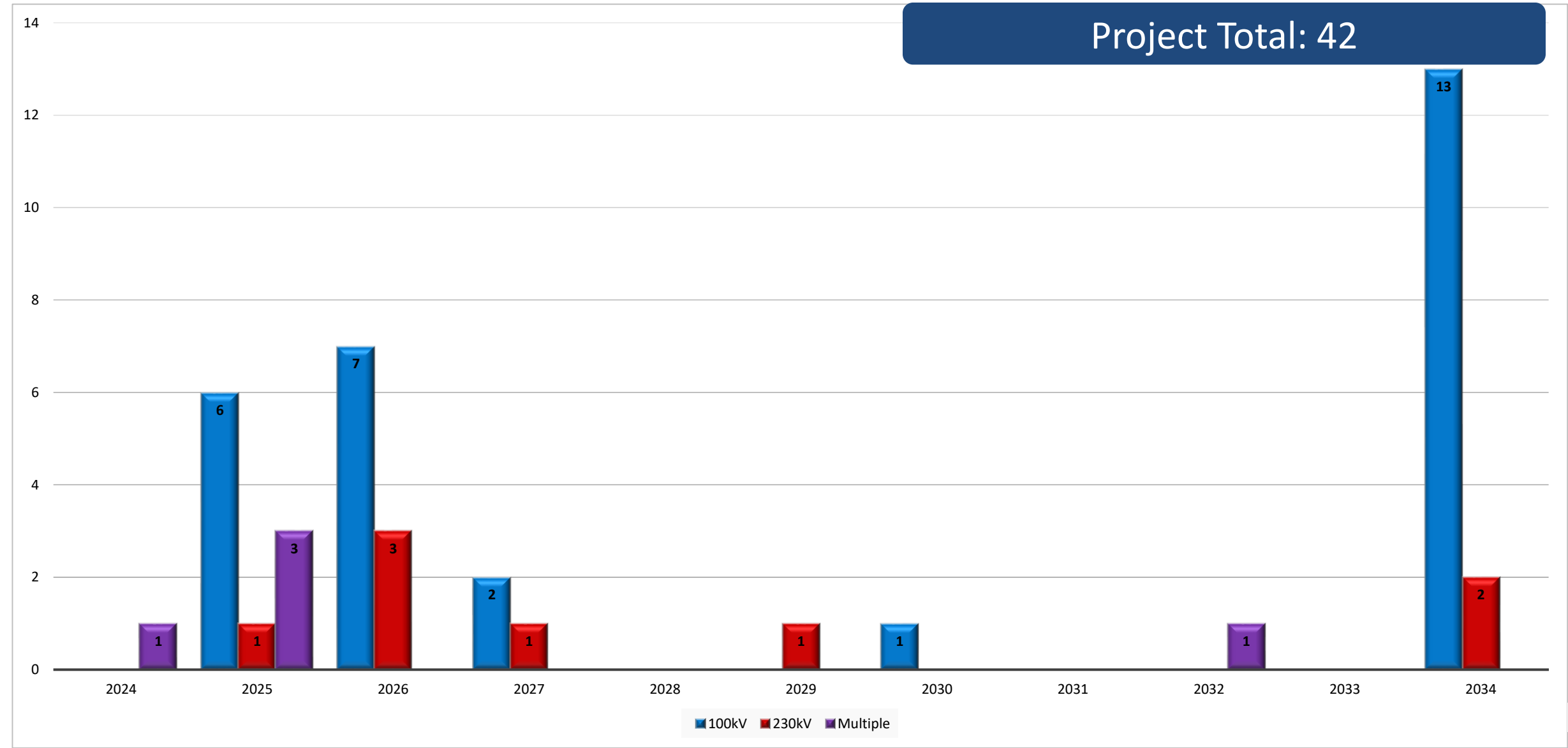
## DUKE ENERGY CAROLINAS – Generation Assumptions (Point-to-Point)

The following table depicts generation assumptions based upon expected long-term firm point-to-point commitments for the SERTP 2024 Planning Process. The years shown represent Summer Peak conditions.

SITE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Cleveland	195	195	195	196	196	196	196	196	196	196
Broad River	925	925	925	925	925	925	925	925	925	925
Catawba	407	407	407	407	407	407	407	407	407	407
Rowan	428	373	376	370	180	180	180	180	180	180
Kings Mountain	92	92	92	92	92	92	92	92	92	92

## DUKE ENERGY CAROLINAS Balancing Authority Area Preliminary Transmission Expansion Plan

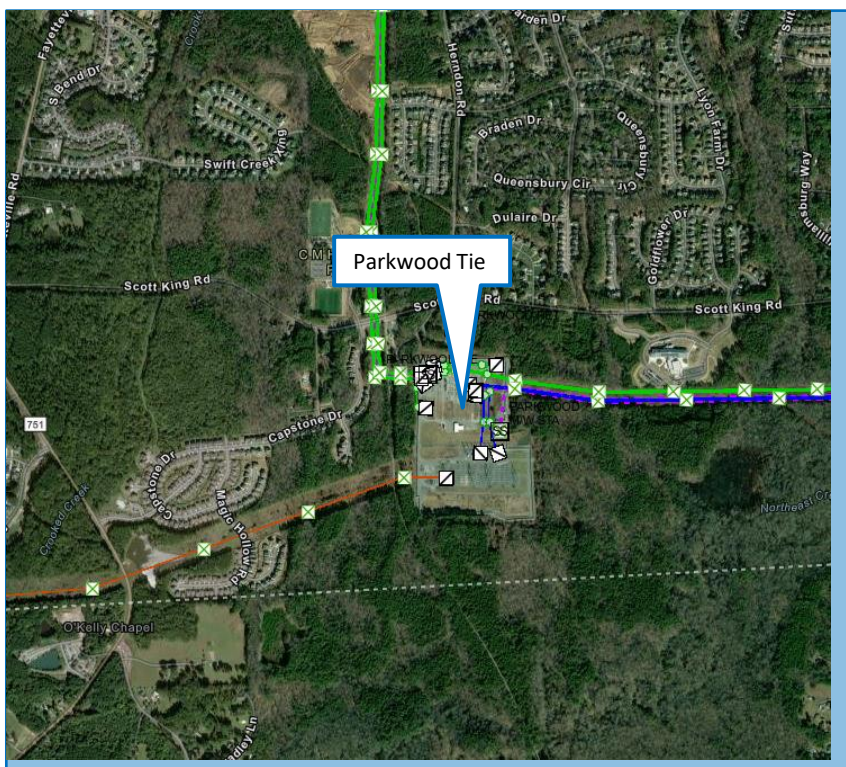
# DEC Project Summary



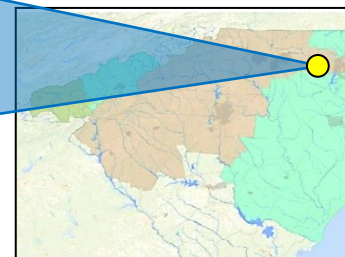
## DUKE ENERGY CAROLINAS – 1

• 2024

### PARKWOOD TIE



- **DESCRIPTION:**
  - Replace the existing 3 - 500/230 kV single phase autobanks of bank 5 with new 1680 MVA single phase banks
- **SUPPORTING STATEMENT:**
  - The existing bank experienced a failure



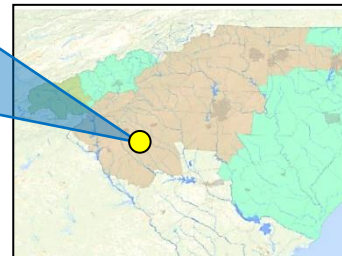
## DUKE ENERGY CAROLINAS – 2

• 2025

### HODGES TIE – CORONACA TIE 100 KV TRANSMISSION LINE



- **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 T.L can overload under contingency
  - GET with high temperature wire

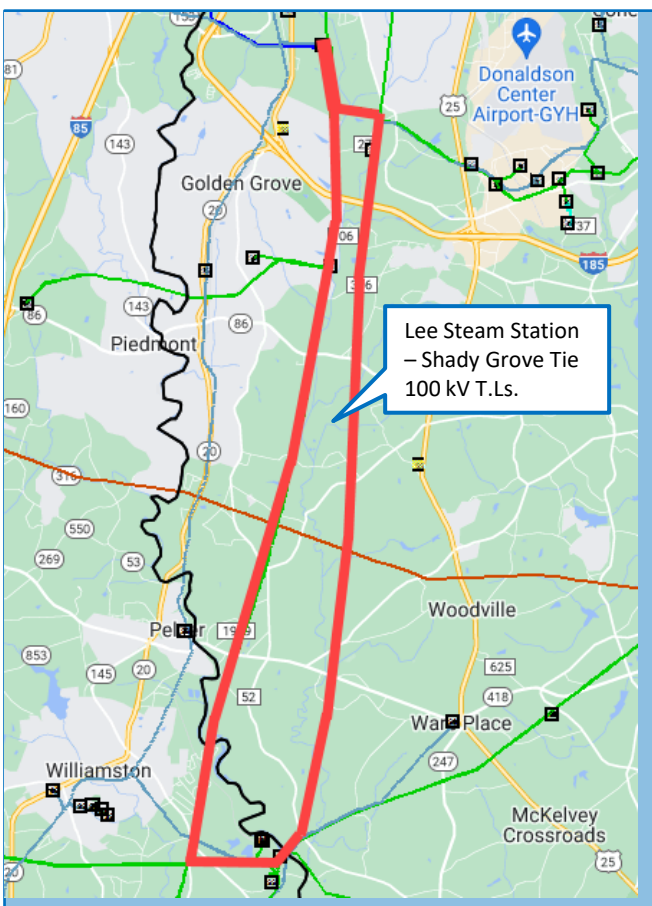




## DUKE ENERGY CAROLINAS – 3

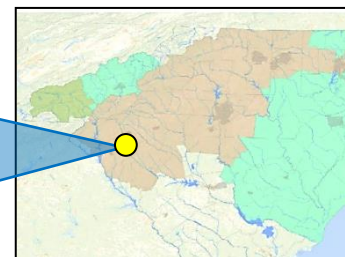
• 2025/2026

### LEE STEAM STATION - SHADY GROVE TIE 100 KV TRANSMISSION LINES



- **DESCRIPTION:**
  - Rebuild both of the Lee Steam Station - Shady Grove 100 kV Transmission Line (Lee circuits) with 1158 ACSS/TW at 200°C
- **SUPPORTING STATEMENT:**
  - The Lee Steam Station – Shady Grove 100 kV Transmission Lines can overload under contingency
  - GET with high temperature wire

Note: These are two separate projects in the 10 year plan

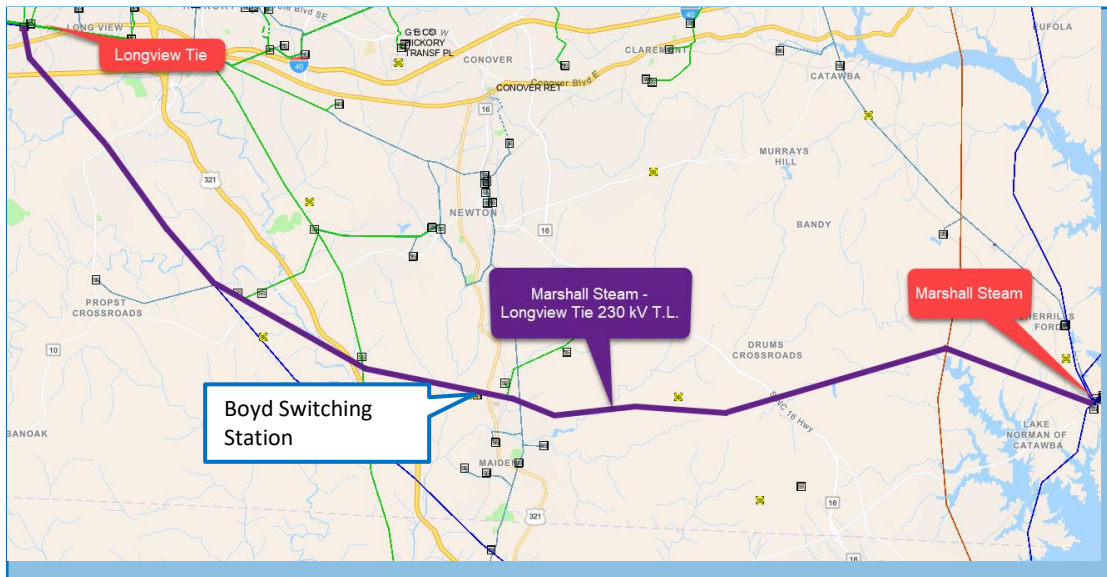




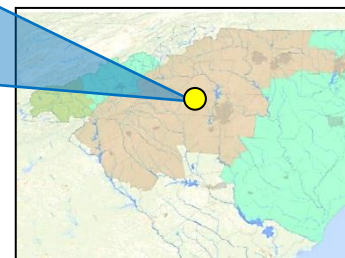
## DUKE ENERGY CAROLINAS – 4

• 2026

### BOYD 230 KV SWITCHING STATION



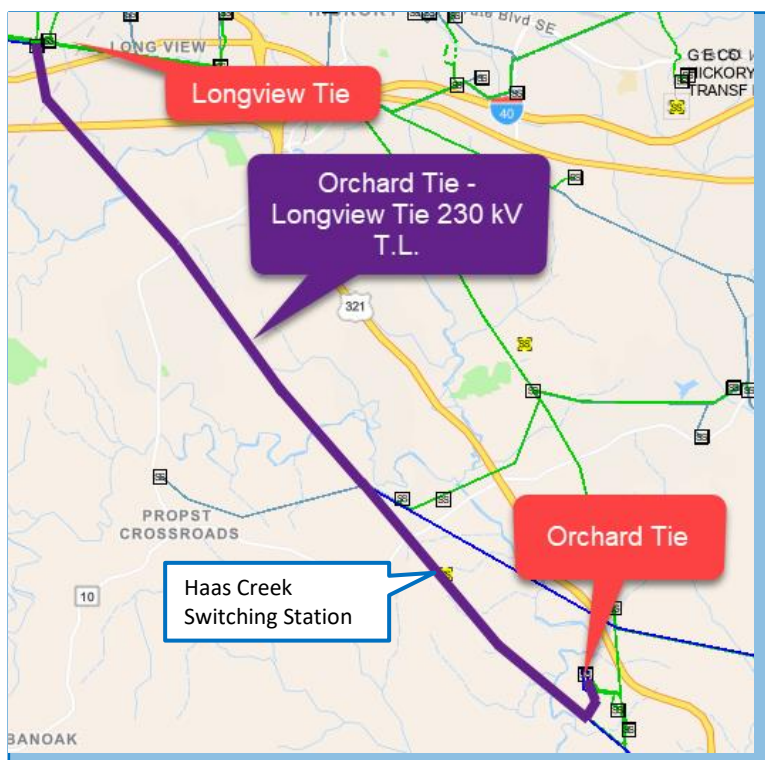
- **DESCRIPTION:**
  - Construct a new 230 kV switching station on the Marshall Steam to Longview Tie 230 kV transmission lines
- **SUPPORTING STATEMENT:**
  - The Marshall Steam Station – Longview Tie 230 kV Transmission Lines can overload under contingency



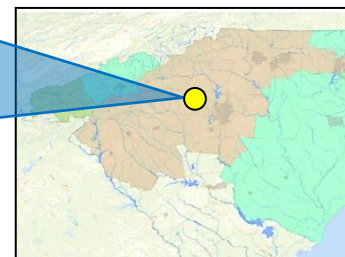
## DUKE ENERGY CAROLINAS – 5

• 2026

### HAAS CREEK 230 KV SWITCHING STATION



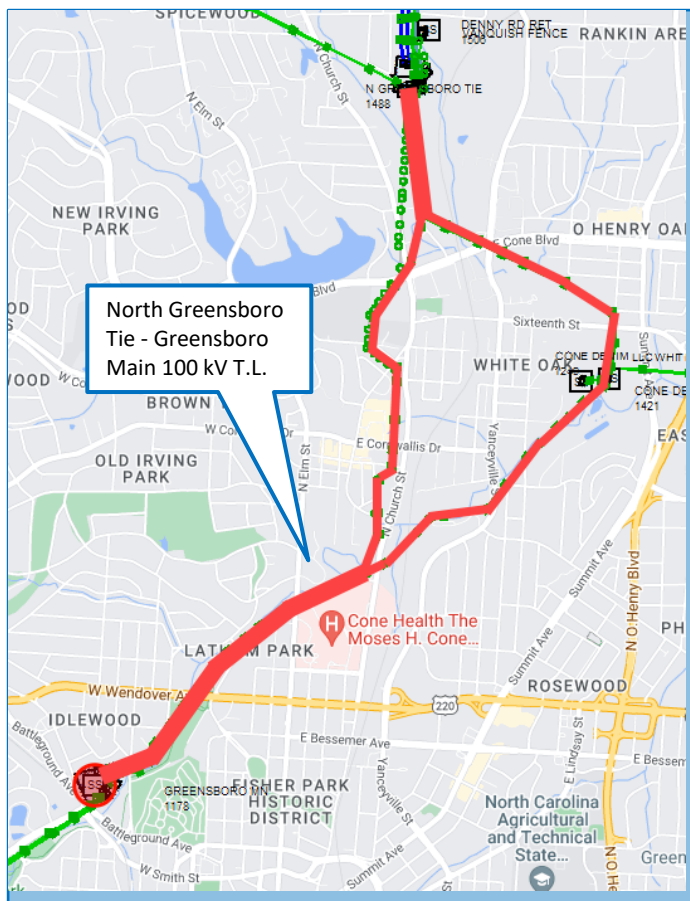
- **DESCRIPTION:**
  - Construct a new 230 kV switching station on the Orchard Tie to Longview Tie 230 kV Transmission Lines
- **SUPPORTING STATEMENT:**
  - The Orchard Tie – Longview Tie 230 kV Transmission Lines can overload under contingency



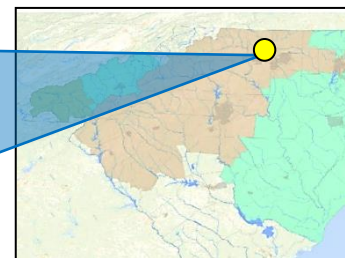
## DUKE ENERGY CAROLINAS – 6

• 2026

### NORTH GREENSBORO TIE - GREENSBORO MAIN 100 KV TRANSMISSION LINES



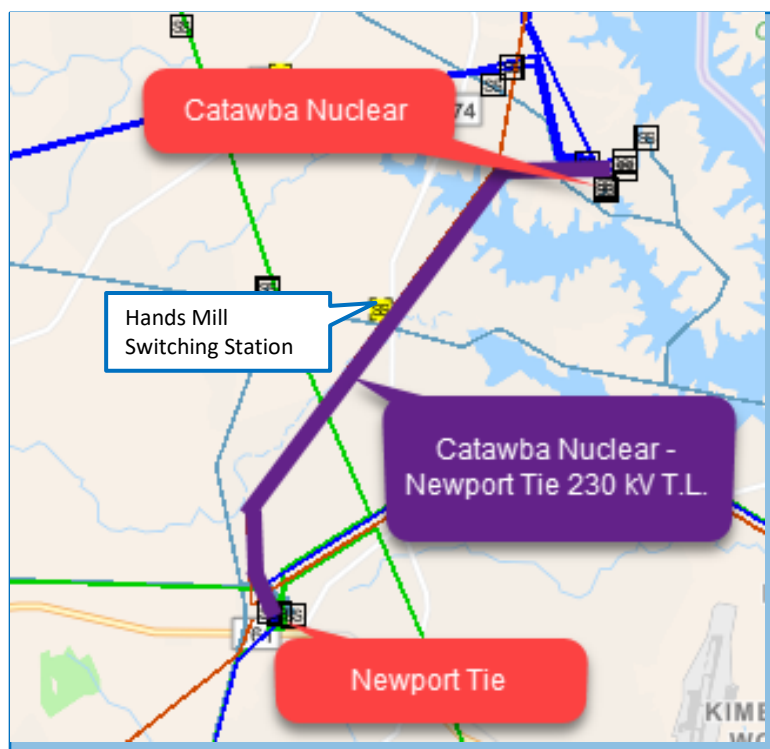
- **DESCRIPTION:**
  - Rebuild both of the North Greensboro Tie - Greensboro Main 100 kV Transmission Lines with 1158 ACSS/TW at 200°C
- **SUPPORTING STATEMENT:**
  - The North Greensboro - Greensboro Main 100 kV Transmission Lines can overload under contingency
  - GET with high temperature wire



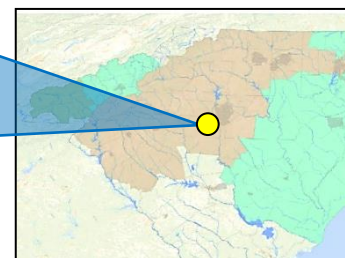
## DUKE ENERGY CAROLINAS – 7

• 2027

### HANDS MILL 230 KV SWITCHING STATION



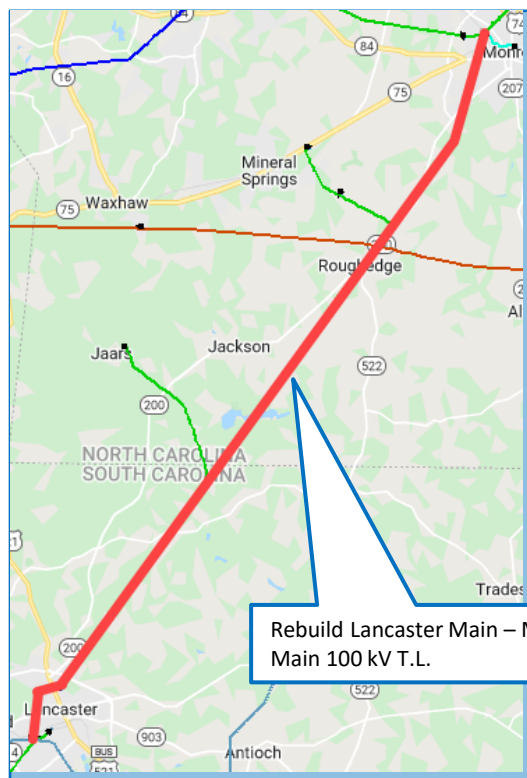
- **DESCRIPTION:**
  - Construct a new 230 kV switching station on the Catawba Nuclear to Newport Tie 230 kV transmission Lines
- **SUPPORTING STATEMENT:**
  - The Catawba Nuclear – Newport Tie 230 kV Transmission Lines can overload under contingency



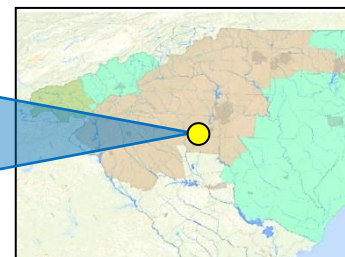
## DUKE ENERGY CAROLINAS - 8

• 2027

### LANCASTER MAIN – MONROE MAIN 100 kV TRANSMISSION LINE



- **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
  - GET with high temperature wire





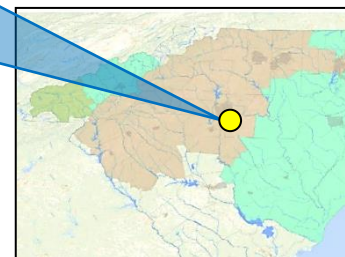
## DUKE ENERGY CAROLINAS - 9

• 2029

### NEWPORT TIE – MORNING STAR TIE 230 KV TRANSMISSION LINE



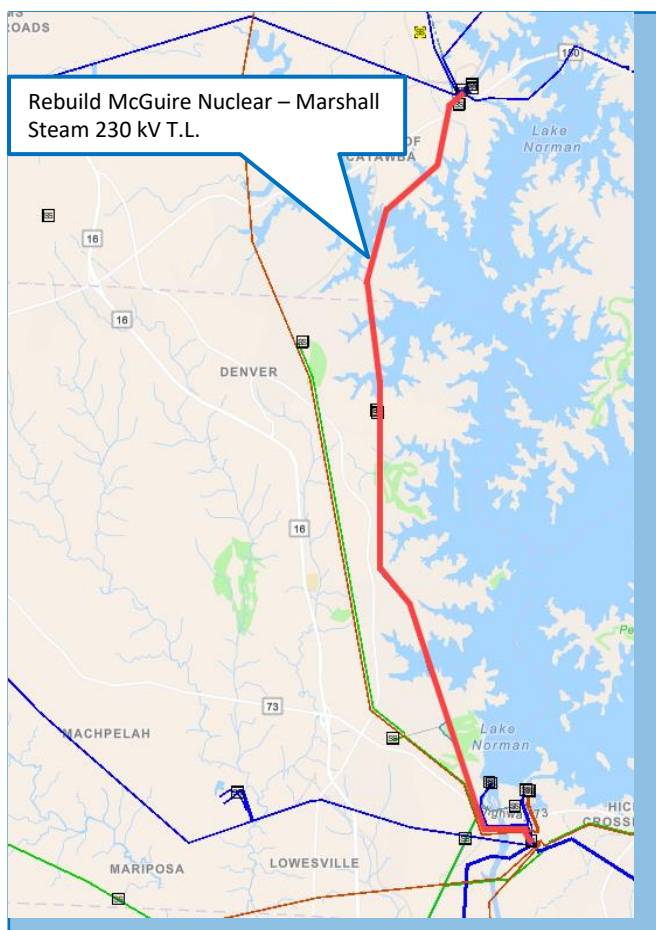
- **DESCRIPTION:**
  - Add a second circuit to the existing Newport Tie – Morning Star Tie 230 kV Transmission Line
- **SUPPORTING STATEMENT:**
  - A number of contingencies on the Duke Energy Carolinas 230 kV transmission system can cause thermal overloads on the Newport Tie – Morning Star Tie 230 kV T.L.



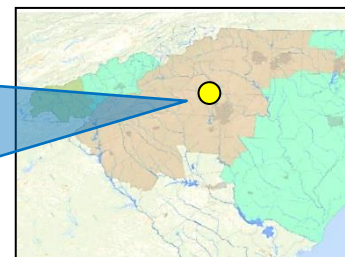
## DUKE ENERGY CAROLINAS - 10

• 2034

### MCGUIRE NUCLEAR – MARSHALL STEAM STATION 230 KV TRANSMISSION LINE



- **DESCRIPTION:**
  - Rebuild the McGuire Nuclear Station - Marshall Steam Station 230 kV Transmission lines with 1533 ACSS/TW rated at 200°C
- **SUPPORTING STATEMENT:**
  - The McGuire Nuclear – Marshall Steam Station 230 kV T.L. can overload under contingency
  - GET with high temperature wire
  - Project listed as conceptual in the local transmission plan. Need date may shift in future



DUKE ENERGY PROGRESS

Balancing Authority Areas

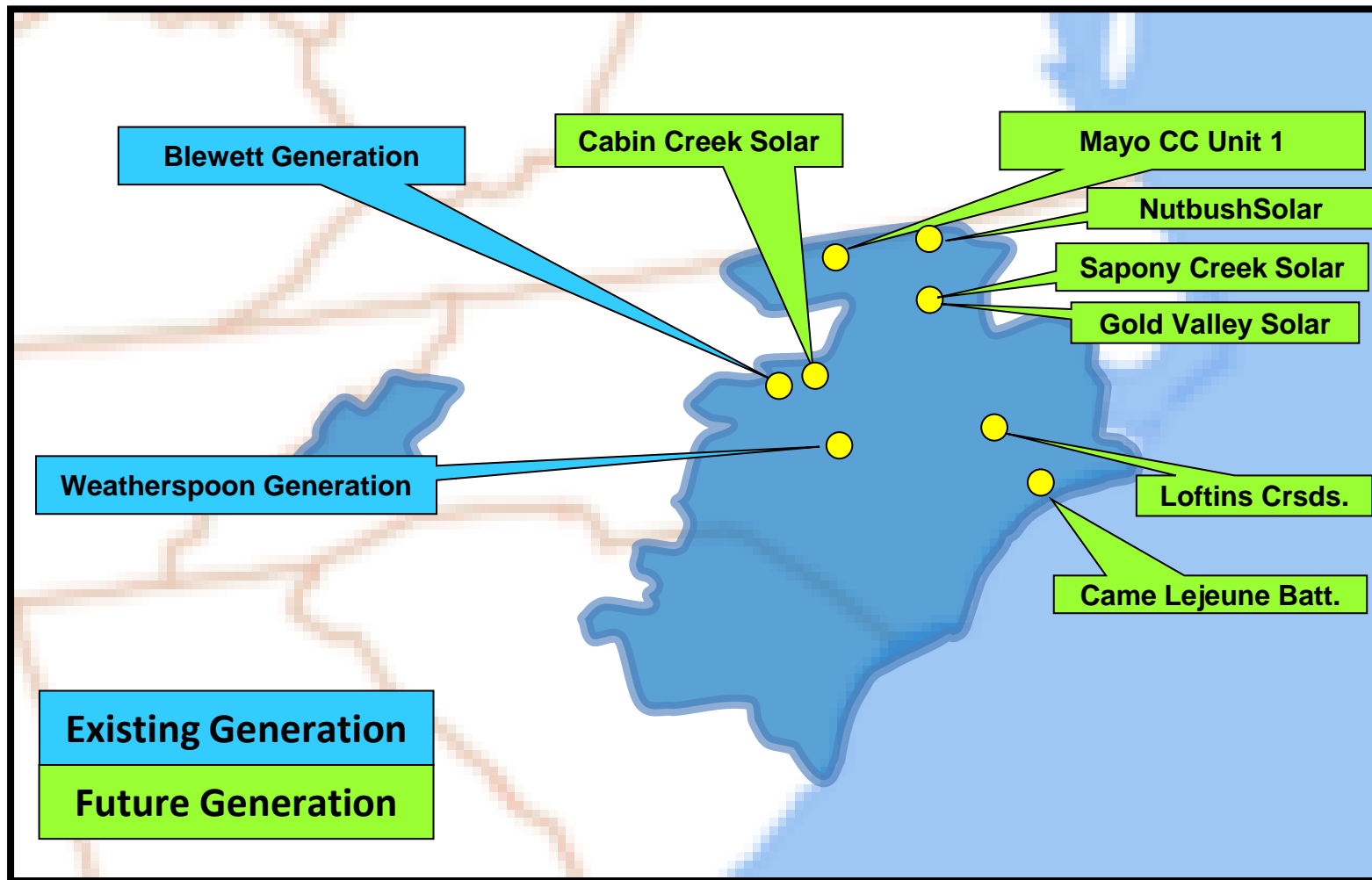
2024 Generation Assumptions



# DEP 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 2024 SERTP Process.



# DEP Balancing Authority Areas

## DUKE ENERGY PROGRESS – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2024 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
BLEWETT IC #1	OIL	0	--	--	--	--	--	--	--	--	--
BLEWETT IC #2	OIL	0	--	--	--	--	--	--	--	--	--
BLEWETT IC #3	OIL	0	--	--	--	--	--	--	--	--	--
BLEWETT IC #4	OIL	0	--	--	--	--	--	--	--	--	--
WEATHERSPOON IC #1	GAS/OIL	0	--	--	--	--	--	--	--	--	--
WEATHERSPOON IC #2	GAS/OIL	0	--	--	--	--	--	--	--	--	--
WEATHERSPOON IC #3	GAS/OIL	0	--	--	--	--	--	--	--	--	--
WEATHERSPOON IC #4	GAS/OIL	0	--	--	--	--	--	--	--	--	--

# DEP Balancing Authority Areas

## DUKE ENERGY PROGRESS – Generation Assumptions (Cont.)

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2024 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
CABIN CREEK SOLAR	PV	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2	70.2
GOLD VALLEY SOLAR	PV	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8
NUTBUSH SOLAR	PV	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
CAMP LEJEUNE BATT.	BATTERY	11	11	11	11	11	11	11	11	11	11
SAPONY CREEK SOLAR	PV	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4
LOFTINS CROSSROADS	PV	75	75	75	75	75	75	75	75	75	75
MAYO CC UNIT 1	CC	--	--	--	--	--	--	--	--	450	450

# DEP Balancing Authority Areas

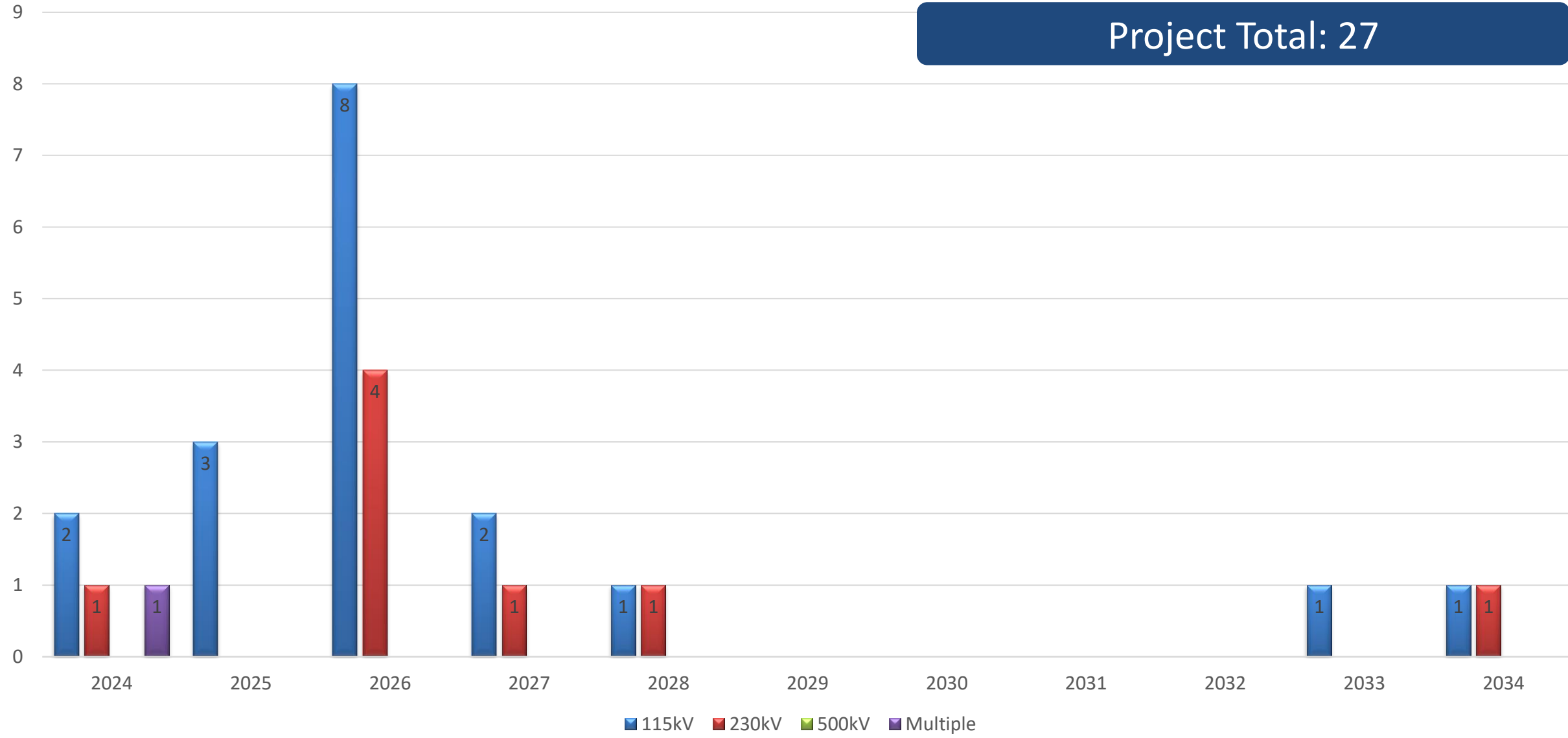
## DUKE ENERGY PROGRESS – Generation Assumptions (Point-to-Point)

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

SITE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
HAMLET #1 AND #2	110	110	110	110	110	110	110	110	110	110
HAMLET #6	55	55	55	55	55	55	55	55	55	55
HAMLET #3	0	4	6	9	9	11	13	14	0	0

# DEP Project Summary

Project Total: 27



DUKE ENERGY PROGRESS EAST

Balancing Authority Area

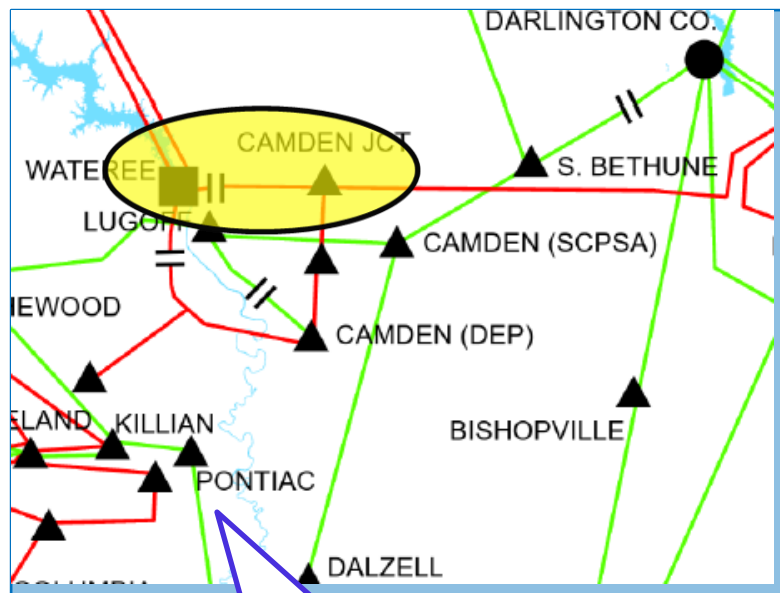
Regional Transmission Expansion Plan

# DEP Balancing Authority Areas

## DUKE ENERGY PROGRESS EAST – 1

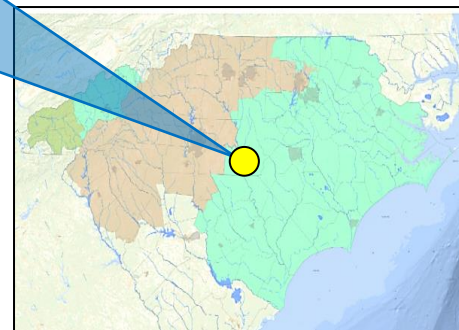
• 2026

### CAMDEN JUNCTION - DPC WATEREE 115 KV LINE



RECONDUCTOR 4.24 MILES OF 115  
KV T.L. WITH 1590 ACSR

- **DESCRIPTION:**
  - Camden Junction-DPC Wateree 115 kV line
  - reconductor 4.24 miles.
- **SUPPORTING STATEMENT:**
  - This upgrade has been approved by NCUC as part of the Carolinas Carbon Plan.

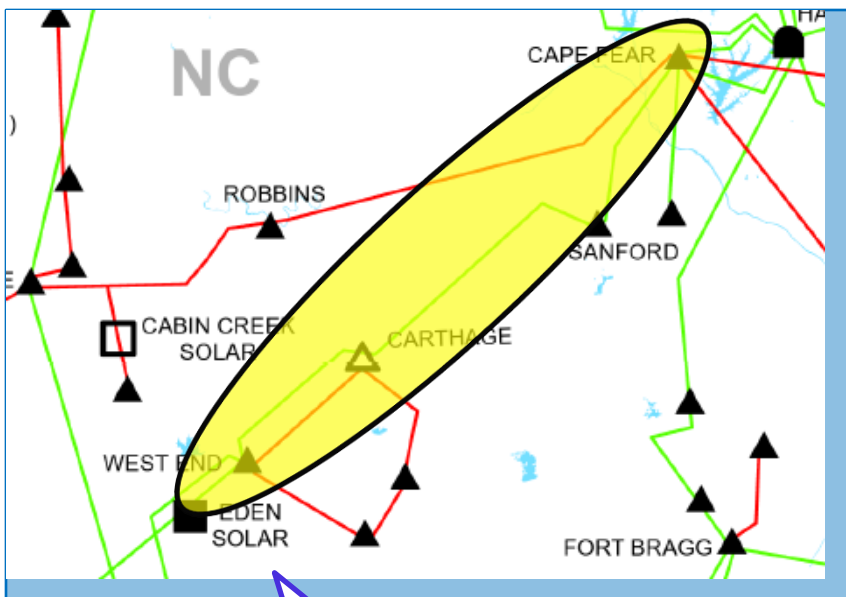


# DEP Balancing Authority Areas

## DUKE ENERGY PROGRESS EAST – 2

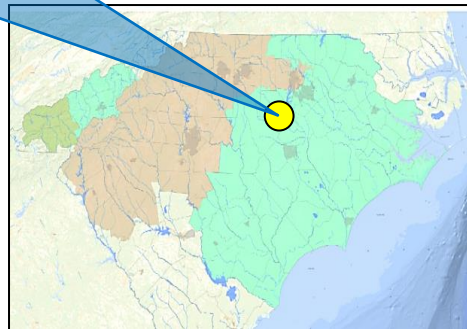
• 2026

### Cape Fear Plant - West End 230 kV Line, Rebuild



RECONDUCTOR 26 MILES OF 230 KV T.L.  
WITH 6-1590 ACSR, RAISE 4.5 MILES

- **DESCRIPTION:**
  - Reconductor 26 miles and raise 4.5 miles of the Cape Fear Plant - West End 230 kV Line.
- **SUPPORTING STATEMENT:**
  - This upgrade has been approved by NCUC as part of the Carolinas Carbon Plan.

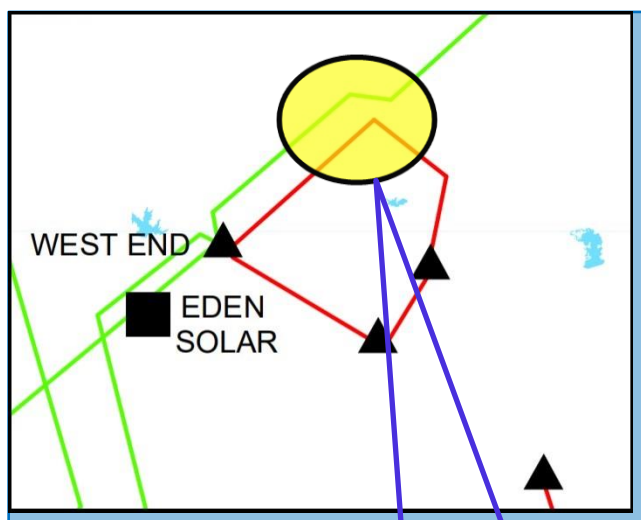




## DUKE ENERGY PROGRESS EAST – 3

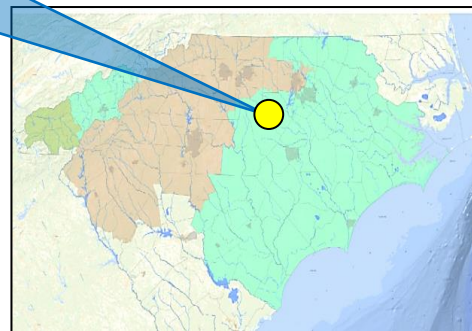
• 2026

### CARTHAGE 230/115 KV SUBSTATION – CONSTRUCT



CONSTRUCT A NEW  
230/115KVSUBSTATION NEAR THE  
EXISTING CARTHAGE 115KV  
SUBSTATION

- **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.

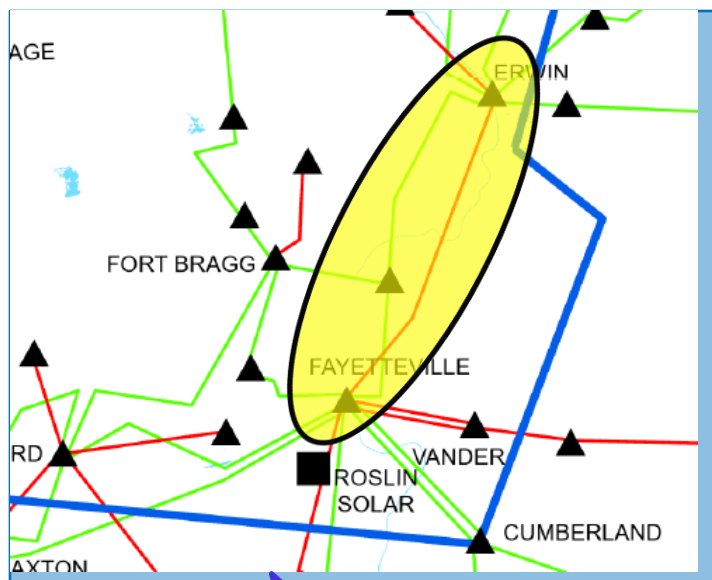


# DEP Balancing Authority Areas

## DUKE ENERGY PROGRESS EAST – 4

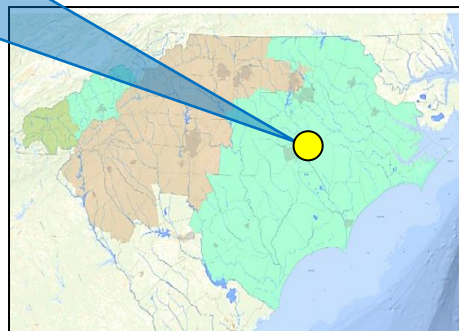
• 2026

### ERWIN - FAYETTEVILLE EAST 230 KV LINE, REBUILD



RECONDUCTOR 23 MILES OF 230 KV  
T.L. WITH 6-1590 ACSR

- **DESCRIPTION:**
  - Reconductor 23 miles of the Erwin - Fayetteville East 230 kV Line.
- **SUPPORTING STATEMENT:**
  - This upgrade has been approved by NCUC as part of the Carolinas Carbon Plan.

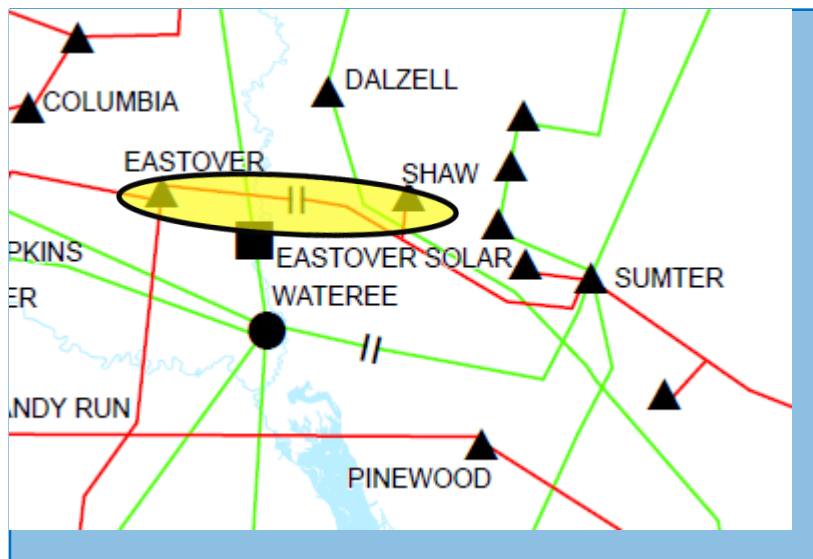


# DEP Balancing Authority Areas

## DUKE ENERGY PROGRESS EAST – 5

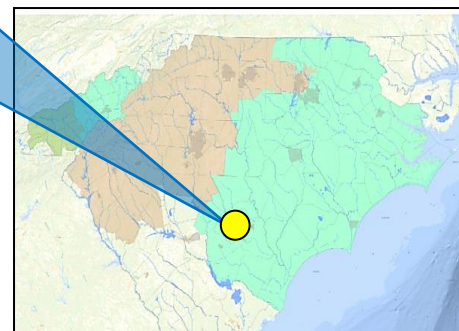
• 2027

### SUMTER – SCE&G EASTOVER 115KV LINE, RECONDUCTOR KINGS HWY – SHAW FIELD – EASTOVER



RECONDUCTOR 7.49 MILES OF 115  
KV T.L. WITH 1272 ACSR, INCLUDING  
1.01 MILES WITHIN SCE&G

- **DESCRIPTION:**
  - Reconductor Sumter Kings Hwy - Shaw Field Tap and Shaw Field Tap – SCE&G Eastover sections of Sumter-Eastover 115 kV line to 1272 ACSR and raise Sumter Gold Kist Tap - Str #427 to 212 F.
- **SUPPORTING STATEMENT:**
  - Multiple contingencies cause the Shaw Field Tap-Eastover section of the Sumter-Eastover 115 kV line to overload.



DUKE ENERGY PROGRESS WEST

Balancing Authority Area

Regional Transmission Expansion Plan

\* DEP West has no projects that meet the project criteria in the 2024 SERTP Process.

LG&E/KU Balancing Authority Area

## 2024 Generation Assumptions

## LG&E/KU – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2024 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
GI-2021-007	Solar	0	120	120	120	120	120	120	120	120	120

# 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	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
TRIMBLE COUNTY	324	324	324	324	324	324	324	324	324	324

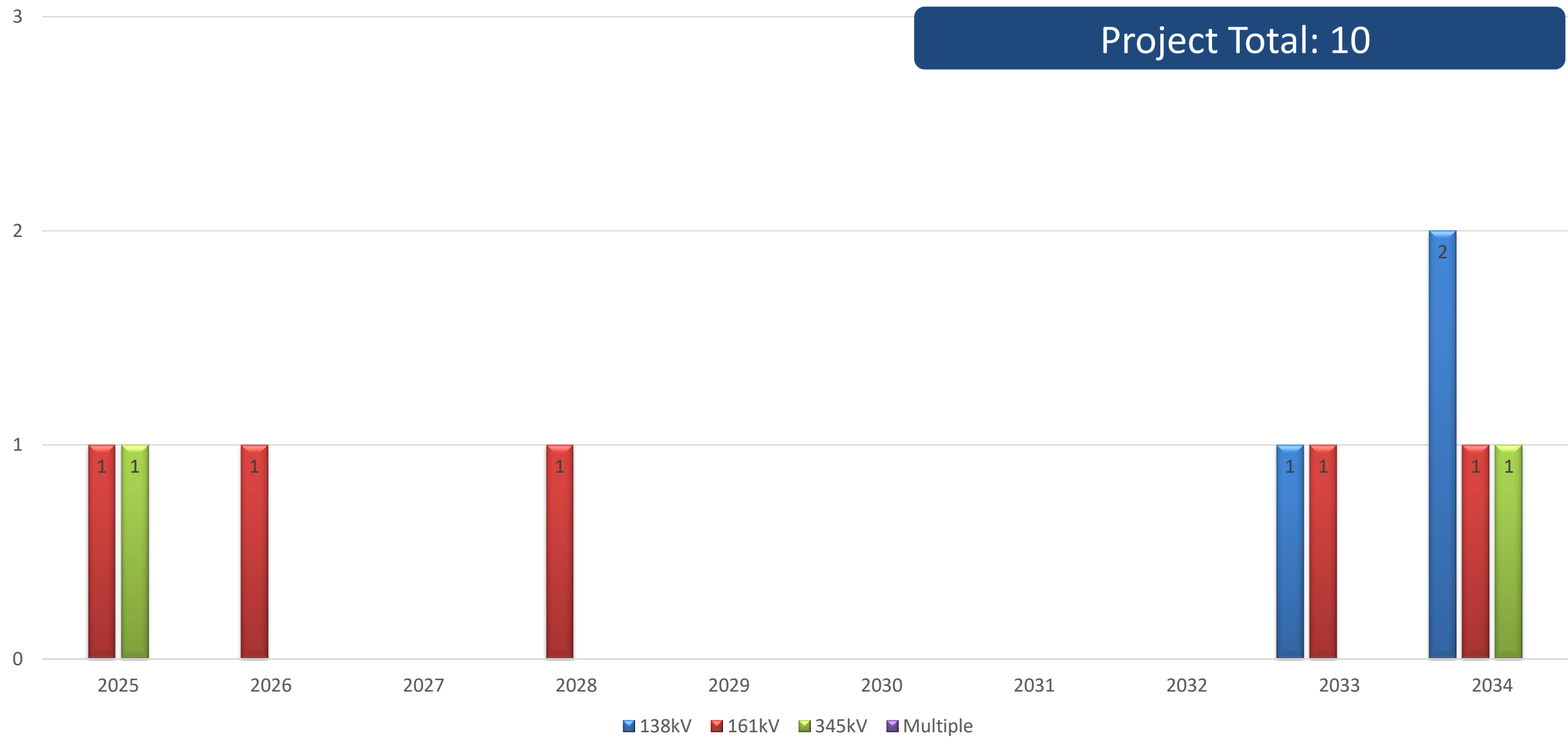
LG&E/KU Balancing Authority Area

Preliminary Transmission Expansion Plan



# LG&E/KU Project Summary

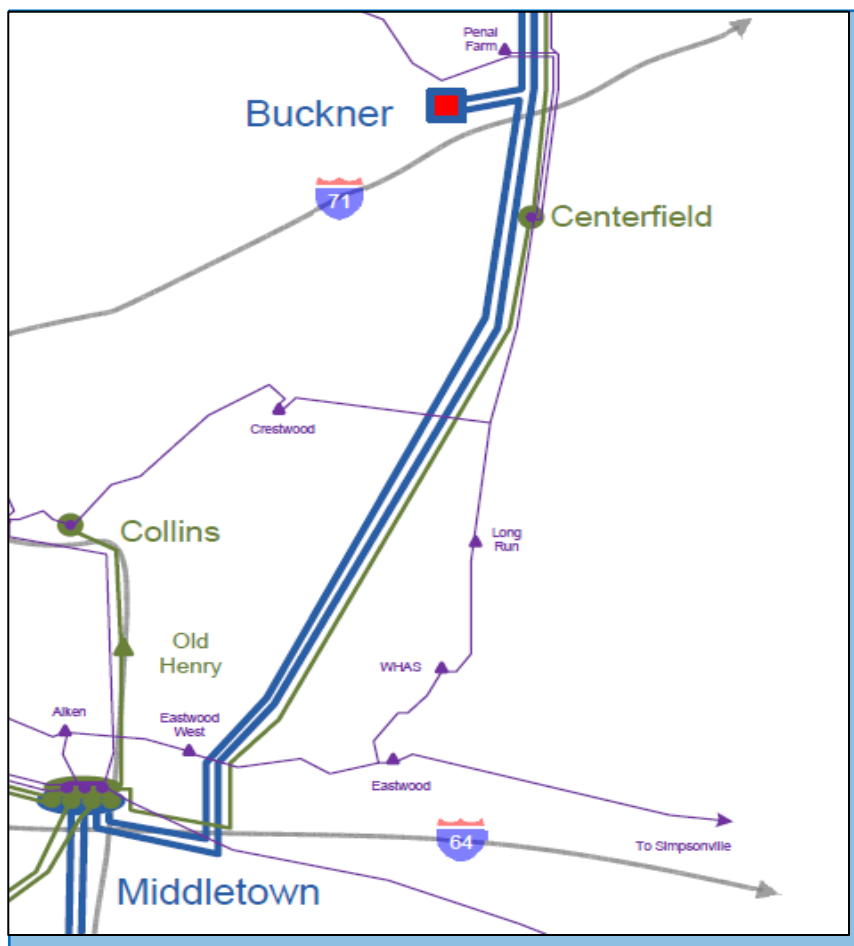
Project Total: 10



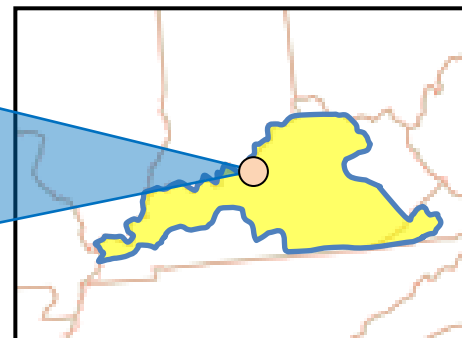
## LG&E/KU - 1

• 2025

### MIDDLETOWN – BUCKNER 345 KV



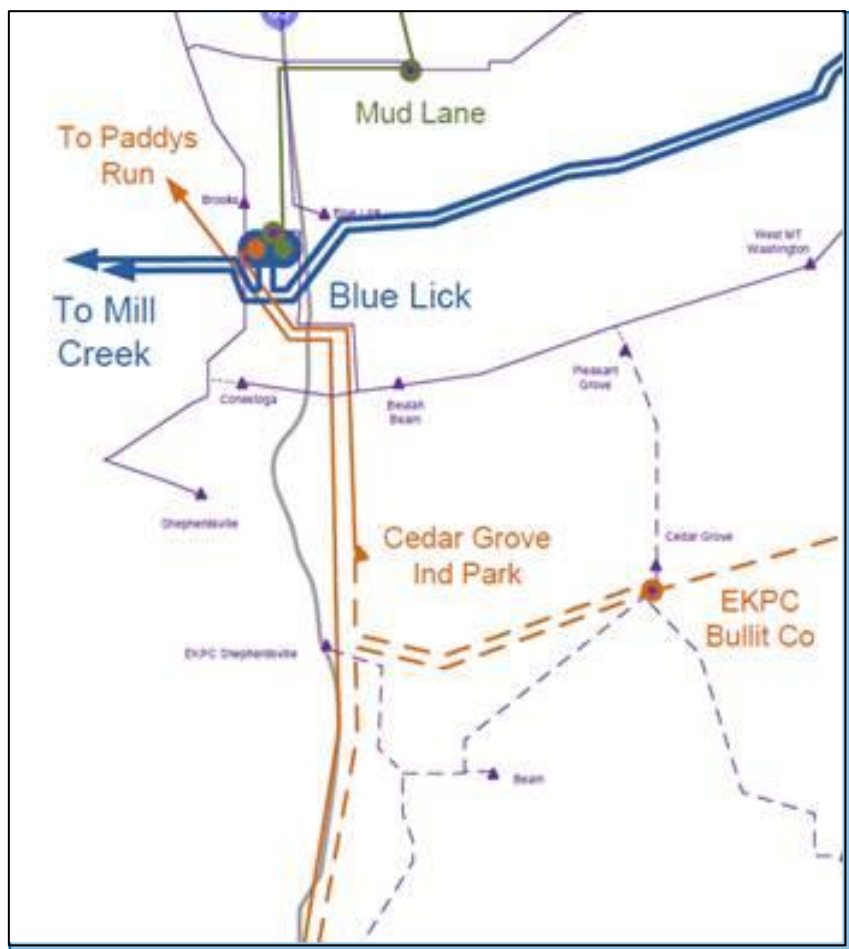
- **DESCRIPTION:**
  - Replace the 345kV 2000A breakers associated with the Middletown – Buckner 345kV line with 3000A breakers.
- **SUPPORTING STATEMENT:**
  - The Middletown – Buckner 345 kV transmission line overloads under contingency.



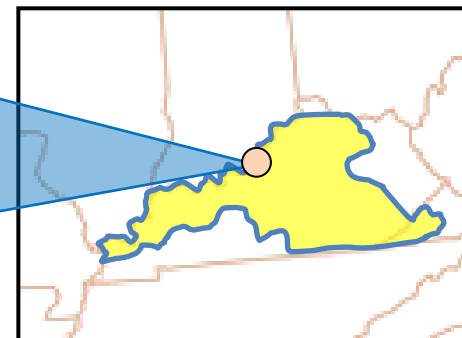
## LG&E/KU - 2

• 2028

### BULLITT CO – CEDAR GROVE 161 KV



- **DESCRIPTION:**
  - Reconductor approximately 1.6 miles of the Bullitt Co - Cedar Grove 161 kV transmission line with 795 ACSR or better.
- **SUPPORTING STATEMENT:**
  - The Bullitt Co – Cedar Grove 161 KV transmission line overloads under contingency.

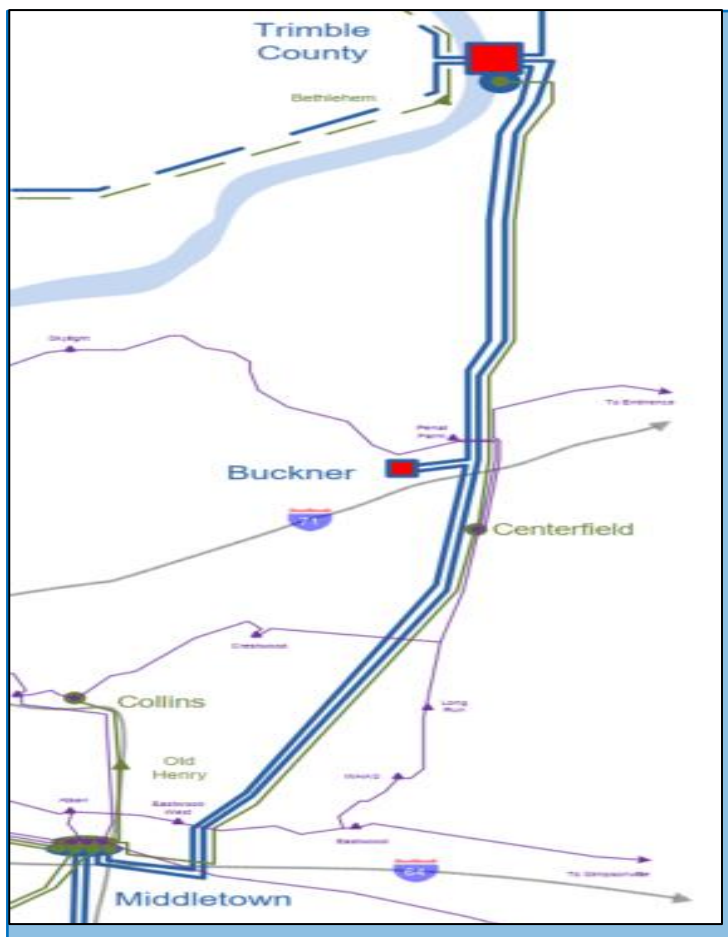


# LG&E/KU Balancing Authority Area

## LG&E/KU - 3

• 2034

### MIDDLETOWN – TRIMBLE COUNTY 345 KV

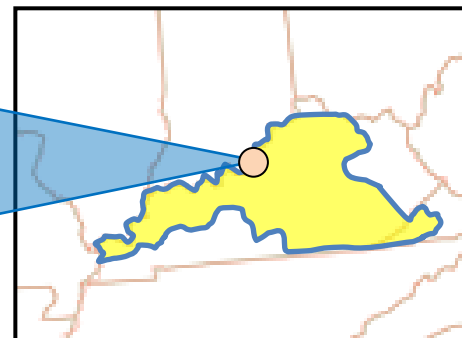


- **DESCRIPTION:**

- Replace the 345kV 2000A breakers associated with the Middletown – Trimble County 345kV line with 3000A breakers.

- **SUPPORTING STATEMENT:**

- The Middletown – Trimble County 345 KV transmission line overloads under contingency.

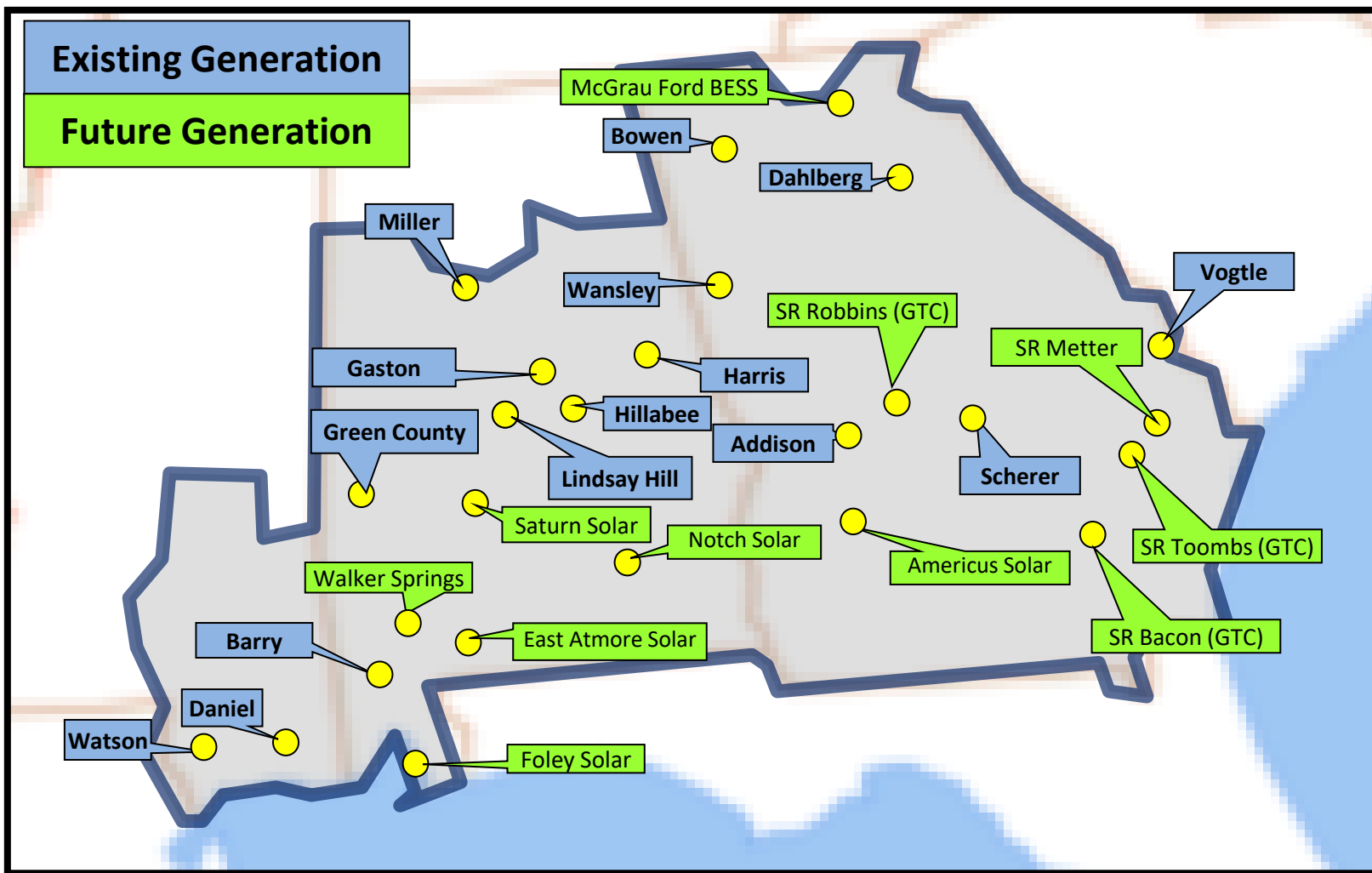


## SOUTHERN Balancing Authority Area 2024 Generation Assumptions

# SOUTHERN Balancing Authority Area

## SOUTHERN – Generation Assumptions

The following diagram depicts the location of generation assumptions that change throughout the ten-year planning horizon for the 2024 SERTP Process.



# SOUTHERN Balancing Authority Area

## Southern Company – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2024 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
ADDISON 1 & 3*	GAS	297	297	297	297	297	0	--	--	--	--
BARRY 1*	GAS	80	80	80	80	80	80	80	80	80	0
BARRY 2*	GAS	80	80	80	80	80	80	80	80	80	0
BARRY 5*	COAL	757	757	757	757	0	--	--	--	--	--
DANIEL 2*	COAL	510	510	510	510	0	--	--	--	--	--
GREENE COUNTY 1*	GAS	258	258	258	258	0	--	--	--	--	--
GREENE COUNTY 2*	GAS	258	258	258	258	0	--	--	--	--	--
HARRIS 1*	GAS	297	297	297	297	297	0	--	--	--	--
WATSON 4*	GAS	272	272	272	272	0	--	--	--	--	--

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

## Southern Company – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2024 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
BARRY 8	GAS	653	653	653	685	685	685	685	685	685	685
DAHLBERG	GAS	502	502	502	758	685	685	685	685	685	685
GASTON 5	COAL/GAS	870	870	950	950	950	950	950	950	950	950
WANSLEY 7	GAS	622	622	622	622	622	622	622	622	622	622



# SOUTHERN Balancing Authority Area

## Southern Company – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2024 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
YATES 8, 9 & 10	GAS	--	--	1224	1224	1224	1224	1224	1224	1224	1224
AMERICUS SOLAR	SOLAR	--	--	415	415	415	415	415	415	415	415
EAST ATMORE SOLAR	SOLAR	80	80	80	80	80	80	80	80	80	80
FOLEY SOLAR	SOLAR	80	80	80	80	80	80	80	80	80	80
NOTCH 4&5	SOLAR	--	160	160	160	160	160	160	160	160	160
SATURN SOLAR 1&2	SOLAR	--	--	160	160	160	160	160	160	160	160
SR METTER	SOLAR	--	80	80	80	80	80	80	80	80	80
WALKER SPRINGS 1&2 SOLAR	SOLAR	160	160	160	160	160	160	160	160	160	160
MCGRAU FORD BESS	BESS	--	265	265	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	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
DAHLBERG	44	44	44	44	44	44	44	44	44	44
DANIEL	100	100	100	100	100	100	100	100	100	100
HARRIS	71	71	71	71	71	71	71	71	71	71
HILLABEE	210	210	210	210	210	210	210	210	210	210
LINDSAY HILL	220	220	220	220	220	220	220	220	220	220
MILLER*	1400	1500	1500	1500	1500	1500	1500	1500	1500	1500
SANDERSVILLE	--	--	--	--	292	292	292	292	292	292
SCHERER	210	210	210	210	0	--	--	--	--	--
VOGTLE	206	206	206	206	206	206	206	206	206	206

\*Third-party delivery service, sourcing from a Designated Network Resource, will likely require a redirect to new source.

## GTC – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2024 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
SR BACON	SOLAR	--	100	200	300	300	300	300	300	300	300
SR ROBBINS	SOLAR	--	--	175	250	250	250	250	250	250	250
SR TOOMBS	SOLAR	250	250	250	250	250	250	250	250	250	250

## MEAG – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2024 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
NO KNOWN UPDATES AT THIS TIME											

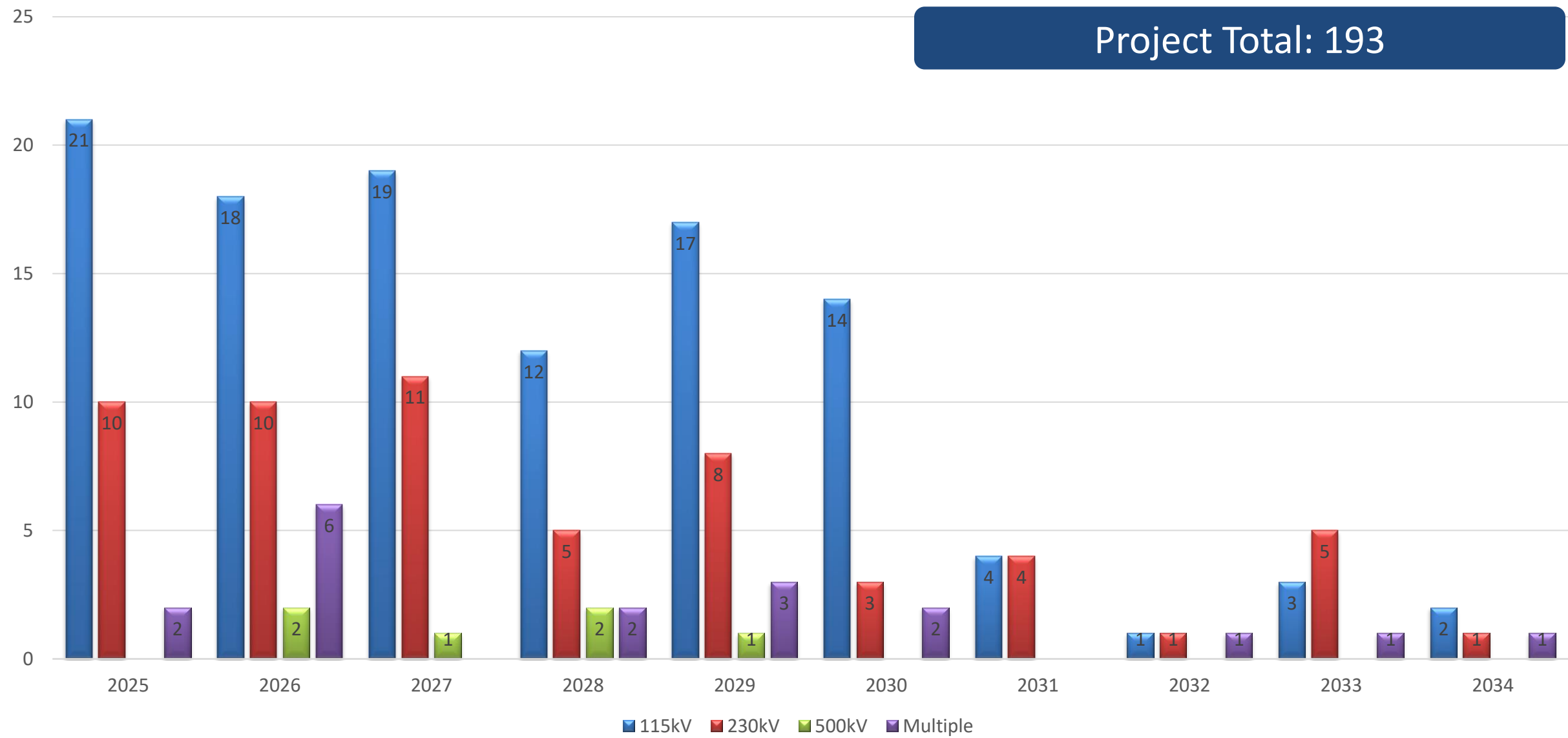
## DALTON – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2024 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
NO KNOWN UPDATES AT THIS TIME											

# SBAA Project Summary

Project Total: 193



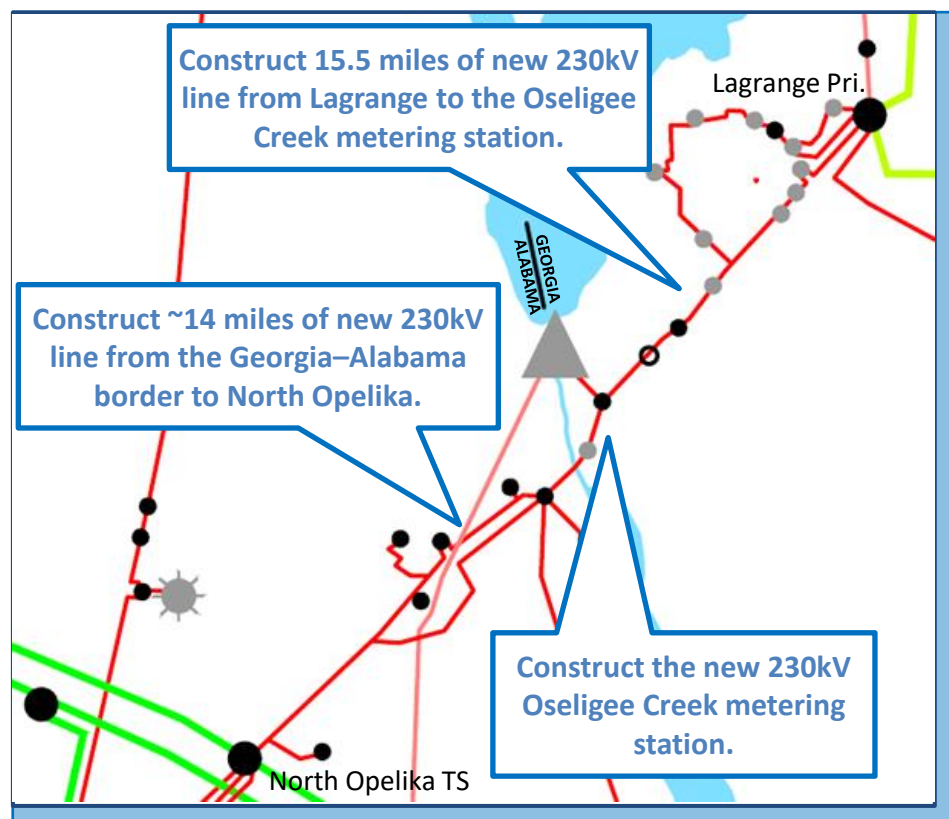
# SOUTHERN Balancing Authority Area

## SOUTHERN (WEST) Balancing Authority Area Preliminary Transmission Expansion Plan

## SOUTHERN – 1W

• 2026

### LAGRANGE PRIMARY-NORTH OPELIKA NEW 230 KV TRANSMISSION LINE

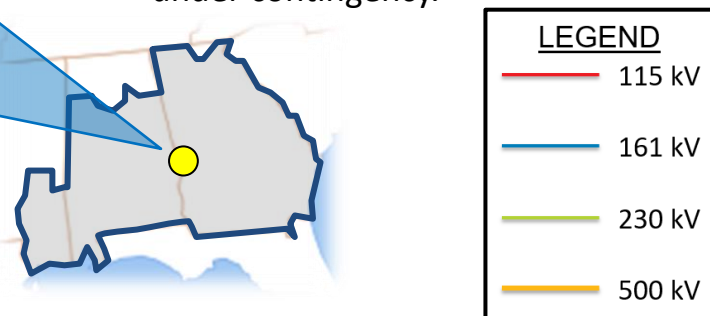


- **DESCRIPTION:**

- APC: 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.
- GTC: Construct the Oseligee Creek 230kV metering station near the Georgia-Alabama state line. Construct the 230kV line section (15.5 miles) from LAGRANGE Primary to Oseligee Creek.
- GPC: Construct the 230kV line section from Oseligee Creek to the Georgia-Alabama state line (~1 mile). Extend the 230kV bus at LAGRANGE Primary to terminate the new line.

- **SUPPORTING STATEMENT:**

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

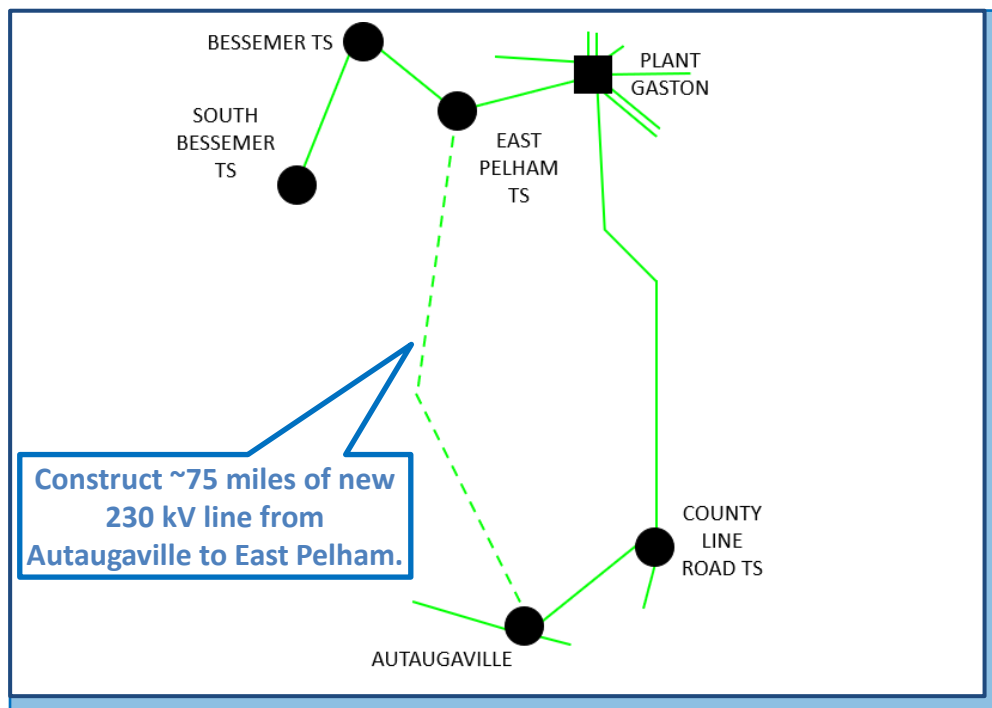




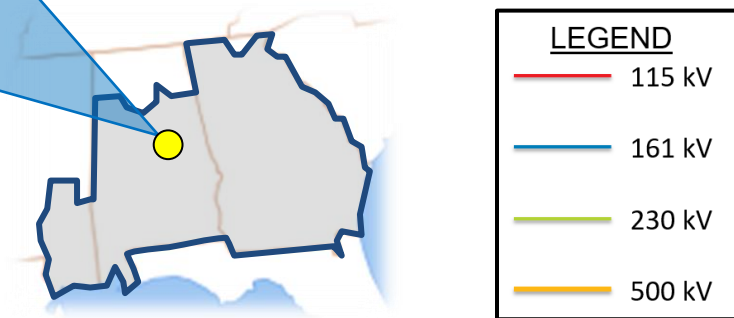
## SOUTHERN – 2W

• 2027

### AUTAUGAVILLE – EAST PELHAM NEW 230 KV TRANSMISSION LINE



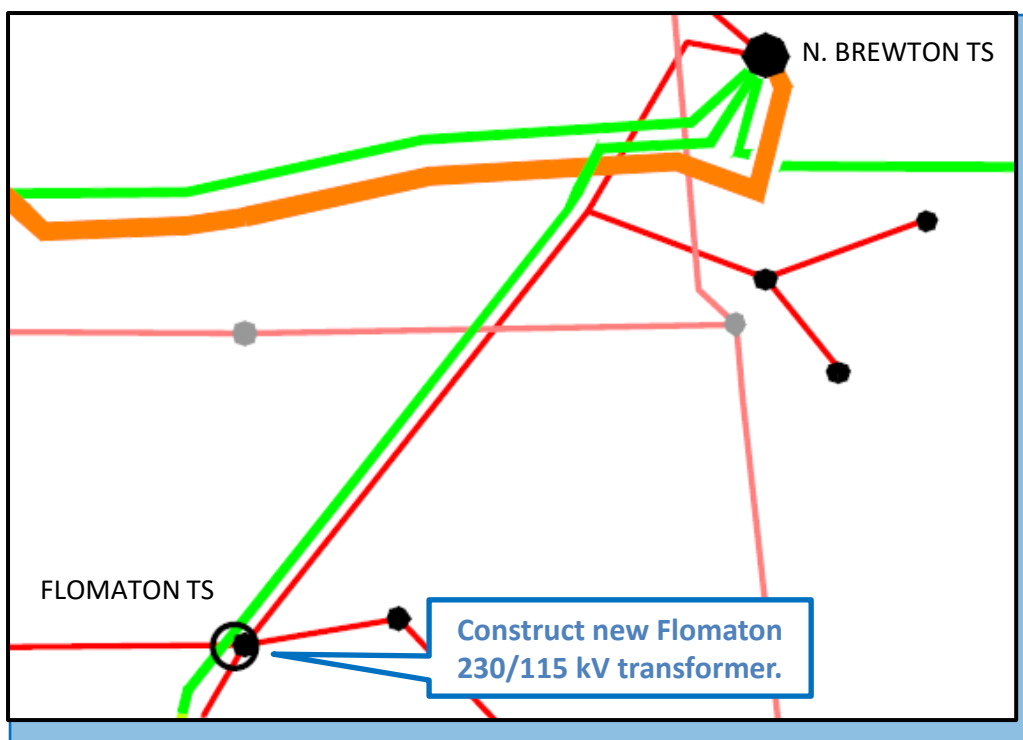
- **DESCRIPTION:**
  - Construct ~75 miles of new 230 kV transmission line bundled 795 26/7 ACSS 200°C from Autaugaville TS to East Pelham TS.
- **SUPPORTING STATEMENT:**
  - The Bessemer – South Bessemer 230 kV transmission line overloads under contingency. Reduces loadings on multiple 230 kV transmission lines and provides additional operational and maintenance flexibility, which increases reliability.



## SOUTHERN – 3W

• 2029

### FLOMATON 230/115 KV SUBSTATION

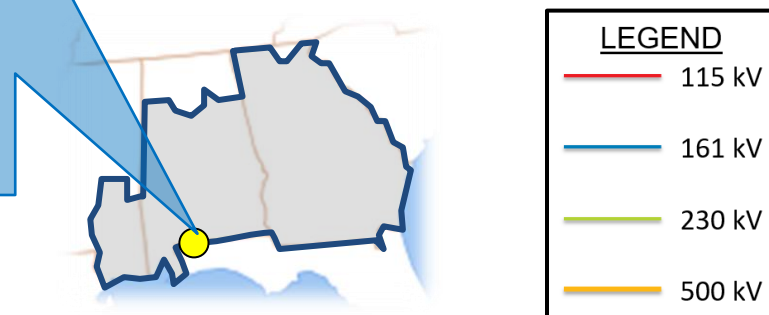


- **DESCRIPTION:**

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

- **SUPPORTING STATEMENT:**

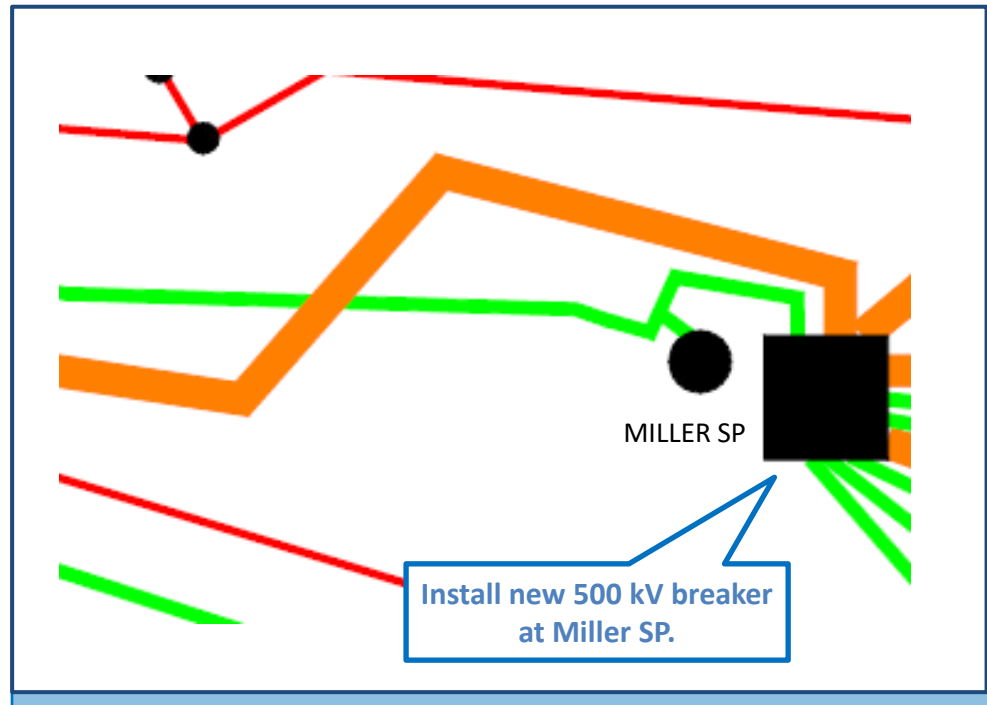
- Provides additional operational and maintenance flexibility which then increases reliability. This project also provides voltage support under contingency scenarios.



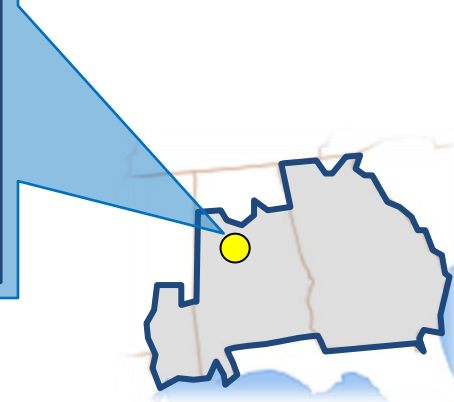
## SOUTHERN – 4W

• 2028

### MILLER SP 500 KV SERIES BREAKER



- **DESCRIPTION:**
  - Install a 500 kV series breaker at Miller SP.
- **SUPPORTING STATEMENT:**
  - The Boyles - Miller 230 kV transmission line and many other transmission lines overload under contingency.



LEGEND	
	115 kV
	161 kV
	230 kV
	500 kV

# SOUTHERN Balancing Authority Area

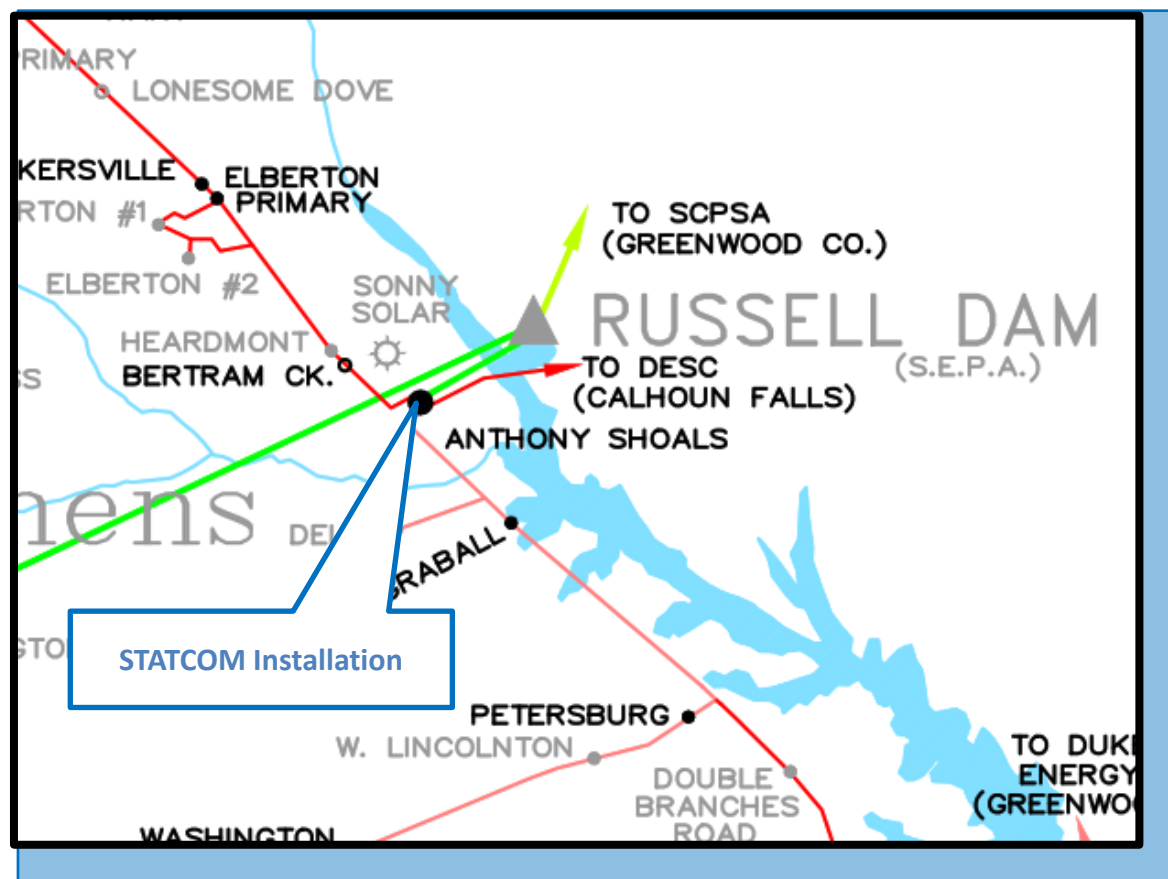
SOUTHERN (EAST) Balancing Authority Area

Preliminary Transmission Expansion Plan

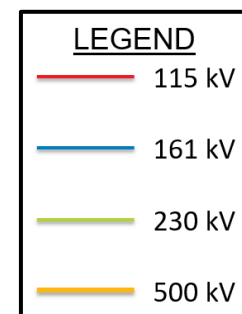
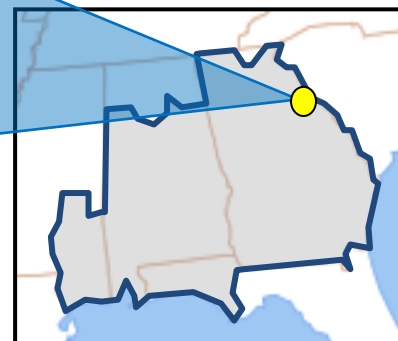
## SOUTHERN – 1E

• 2025

### ANTHONY SHOALS STATCOM INSTALLATION



- **DESCRIPTION:**
  - Installation of a 230kV 150 MVAR STATCOM system at Anthony Shoals substation
- **SUPPORTING STATEMENT:**
  - This project addresses voltage stability issues due to increased generation output in the area.

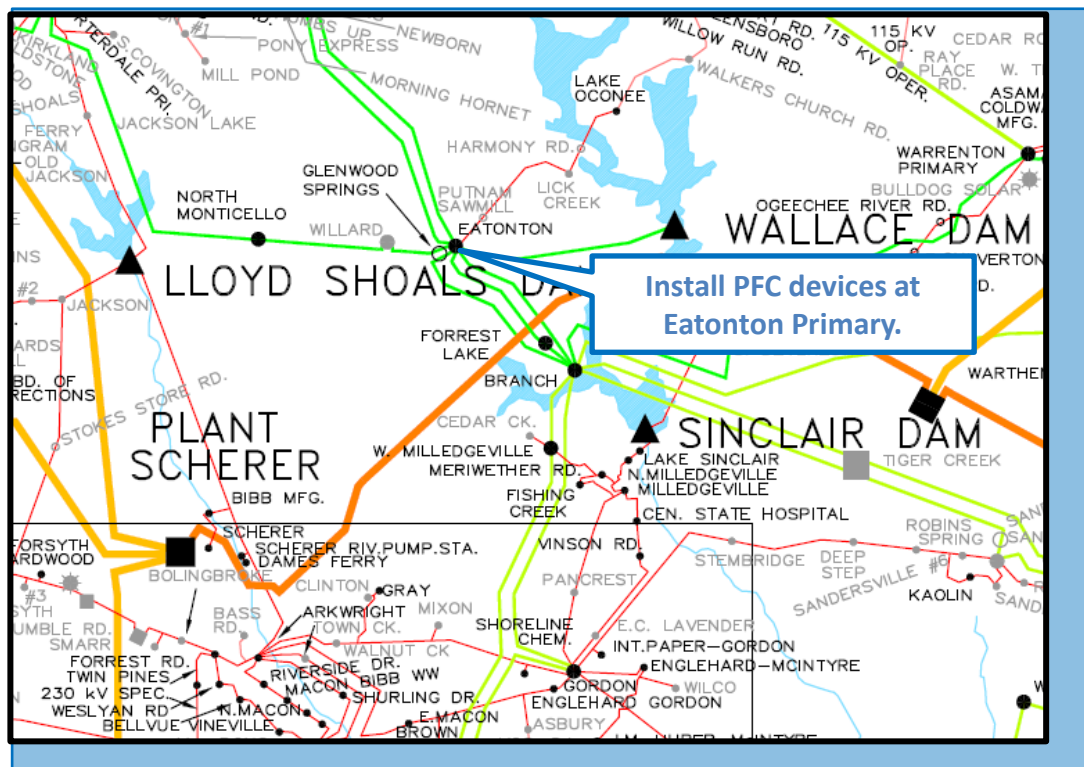


# SOUTHERN Balancing Authority Area

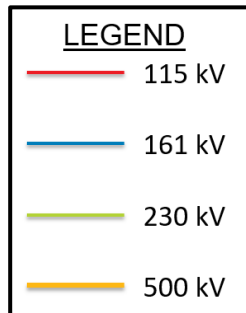
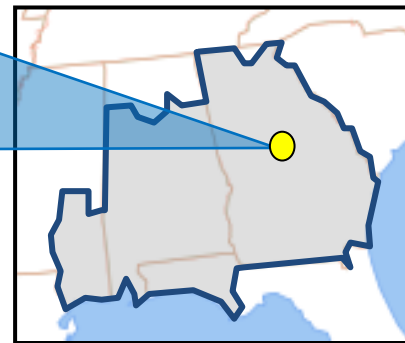
## SOUTHERN – 2E

• 2025

### POWER FLOW CONTROL DEVICES INSTALLATION



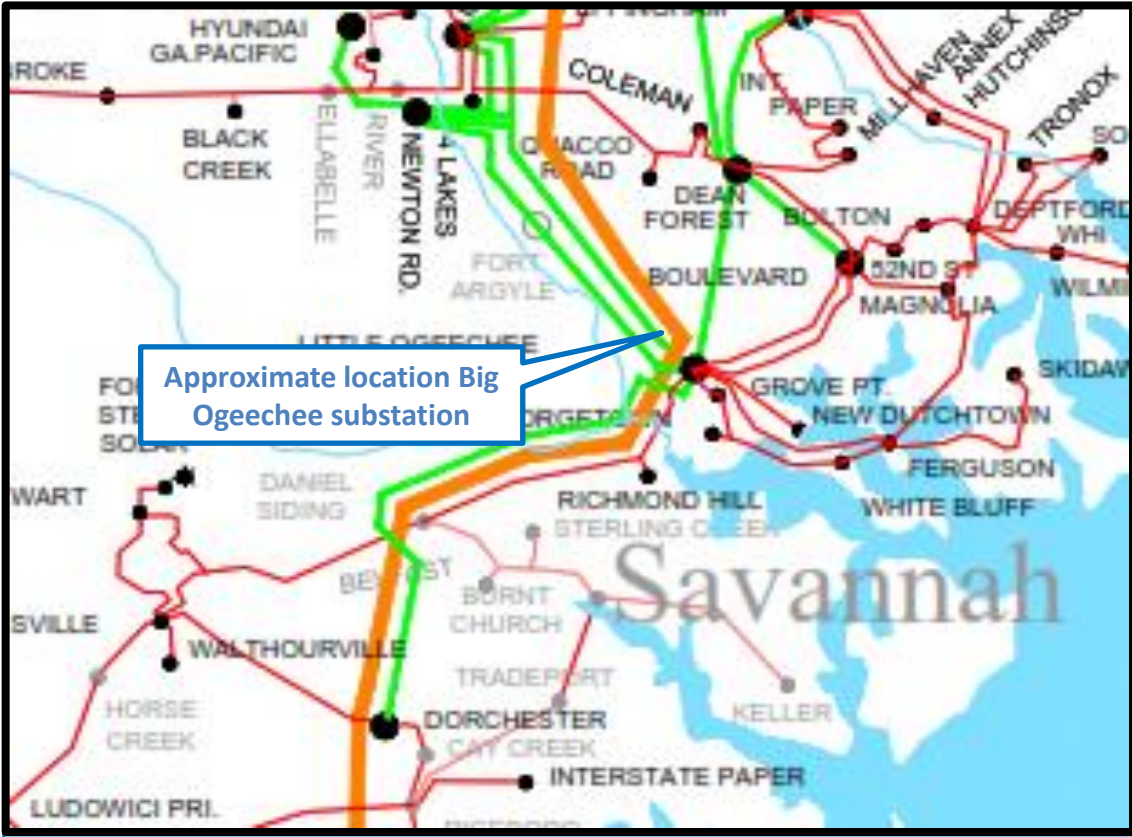
- **DESCRIPTION:**
  - Installation of power flow control devices at the Eatonton Primary substation.
- **SUPPORTING STATEMENT:**
  - This project addresses multiple thermal constraints in the area that occur under contingency.



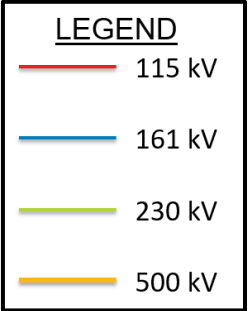
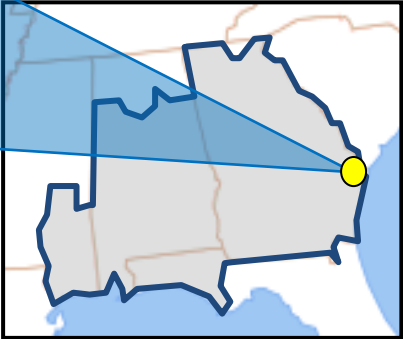
## SOUTHERN – 3E

• 2026

### BIG OGEECHEE 500/230KV STATION



- **DESCRIPTION:**
  - Construct a new 500/230kV substation near Little Ogeechee substation, loop in the nearby 500kV and 230kV lines, and construct a new 230kV line to Little Ogeechee substation.
- **SUPPORTING STATEMENT:**
  - The 500/230kV West McIntosh auto transformers exceed their ratings under contingency.



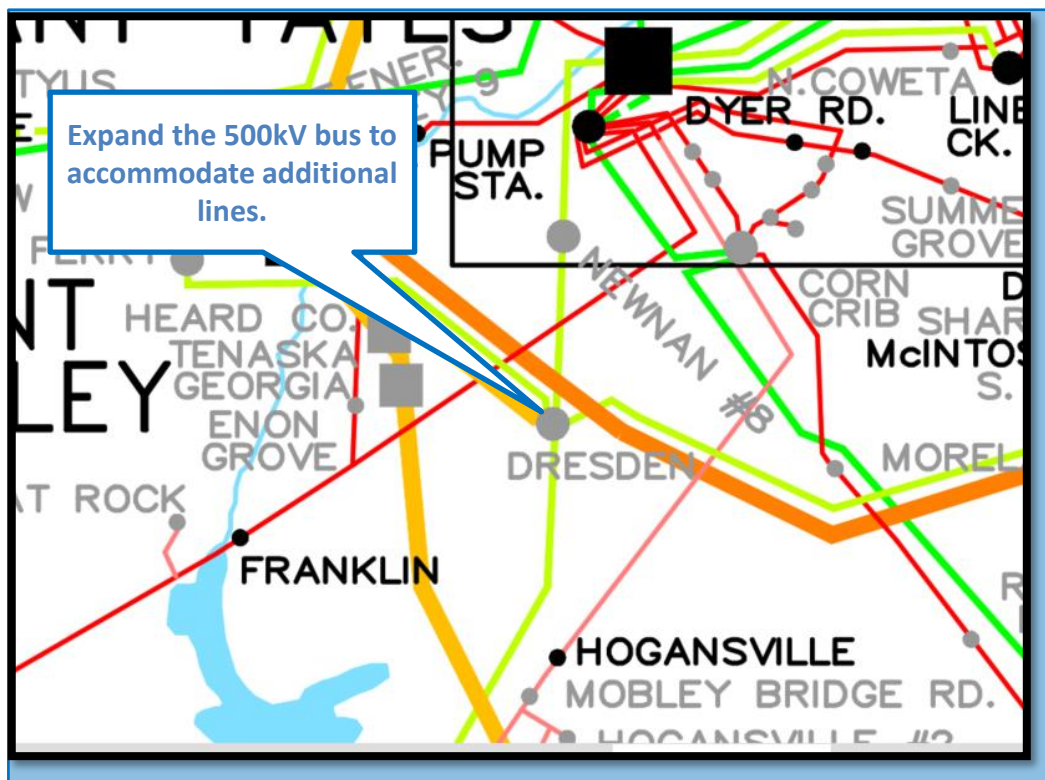


# SOUTHERN Balancing Authority Area

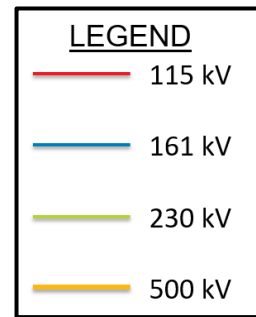
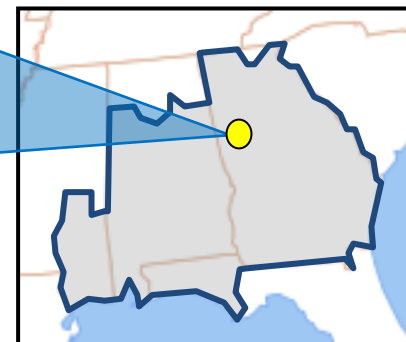
## SOUTHERN – 4E

• 2026

### GTC: DRESDEN 500KV BUS EXPANSION



- **DESCRIPTION:**
  - Expand the Dresden 500kV bus to bring additional 500kV lines into the station.
- **SUPPORTING STATEMENT:**
  - This project will resolve multiple thermal constraints by eliminating a contingency.

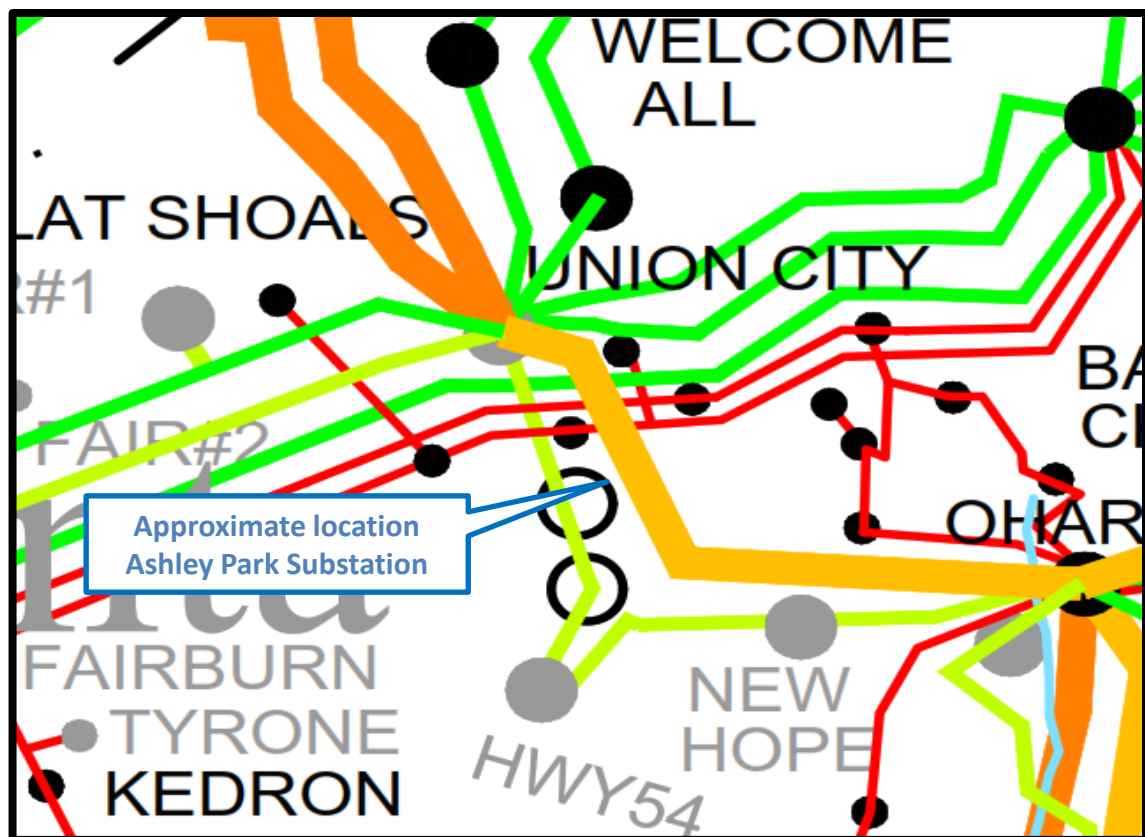




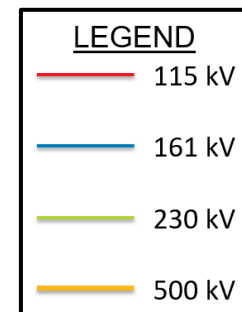
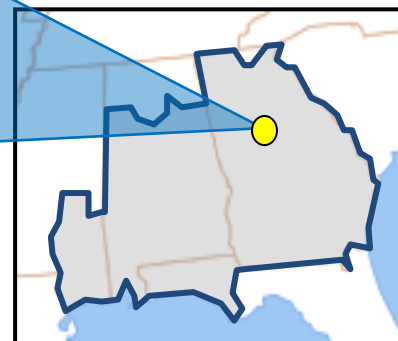
## SOUTHERN – 5E

• 2026

### ASHLEY PARK 500/230KV SUBSTATION



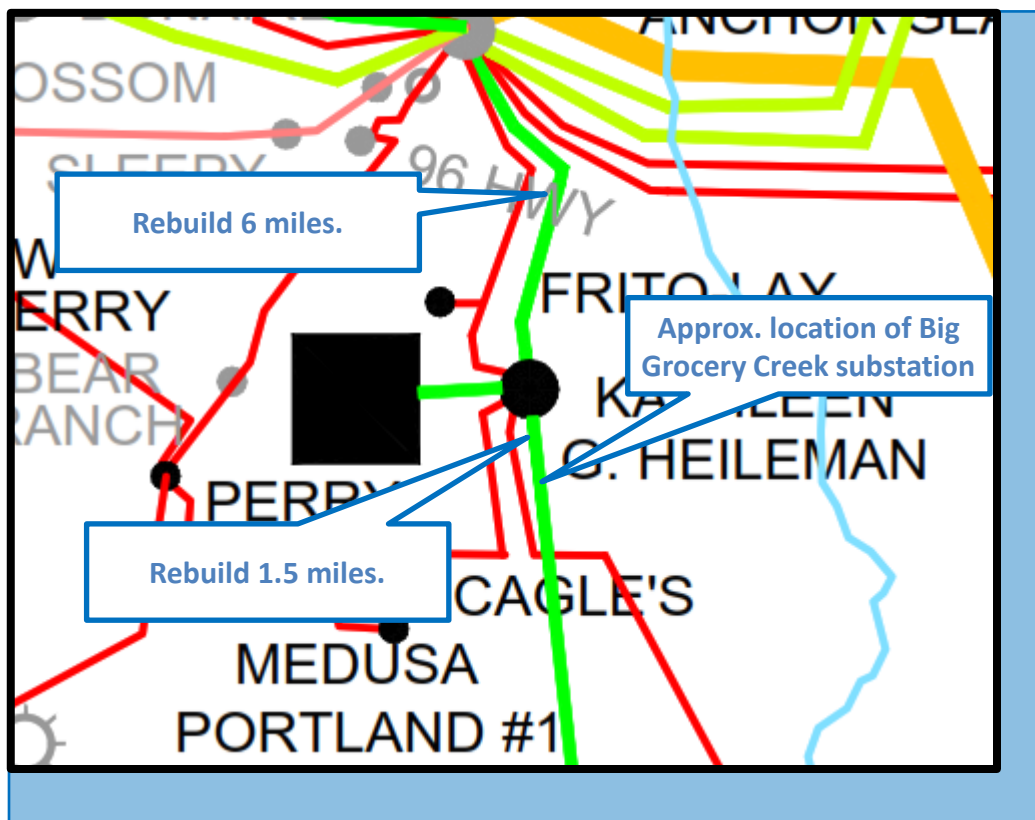
- **DESCRIPTION:**
  - Construct a 500/230kV substation with two auto transformers.
  - Build two new 230kV lines from the new 500/230kV station to serve customer load.
- **SUPPORTING STATEMENT:**
  - The new 500/230kV substation and the new 230kV lines are needed to reliably serve load in the Fayetteville area.



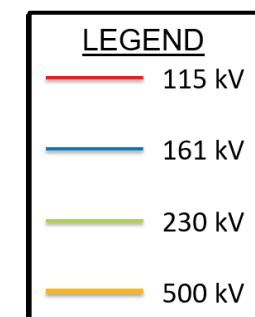
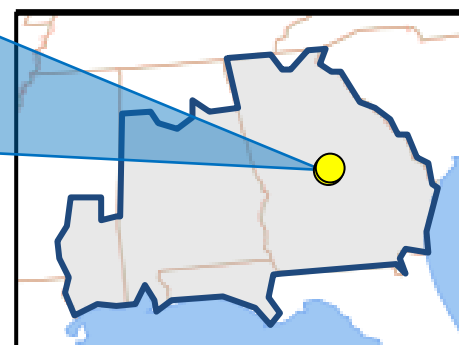
## SOUTHERN – 6E

• 2026

### KATHLEEN AREA TRANSMISSION IMPROVEMENTS



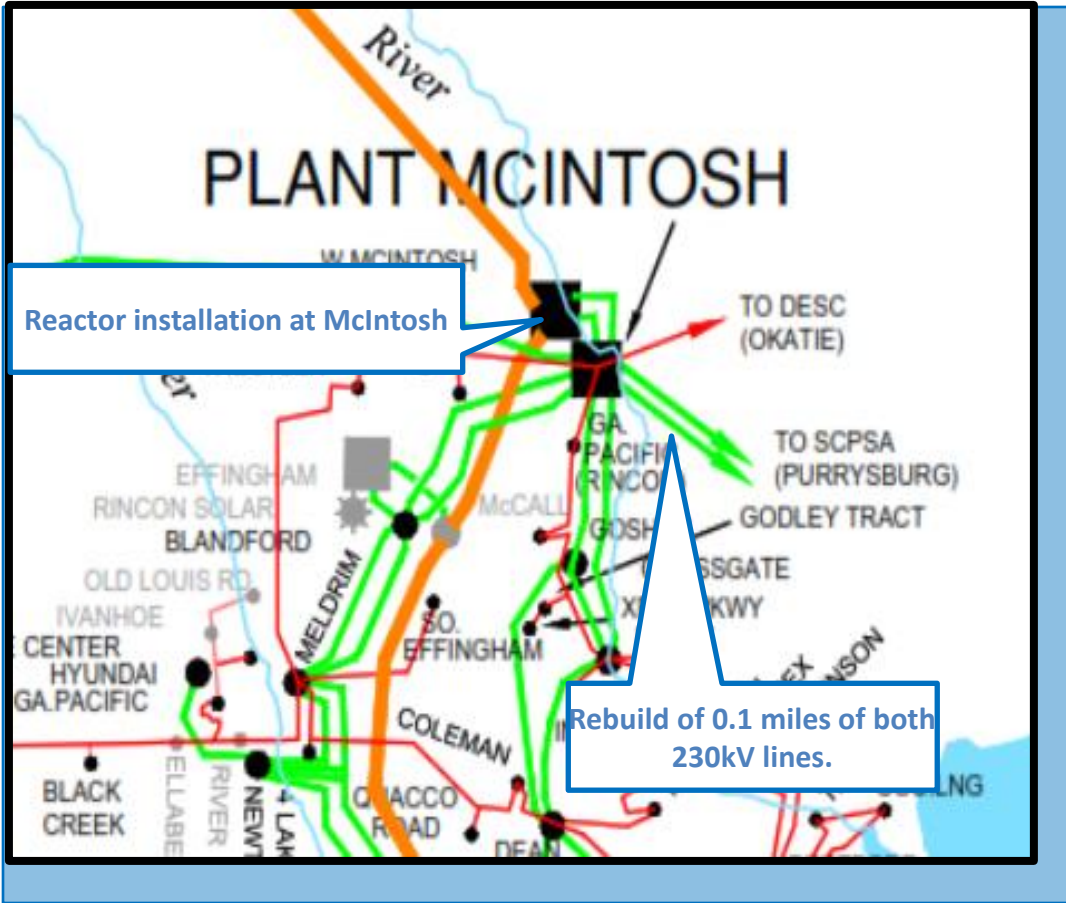
- **DESCRIPTION:**
  - GTC: Build the new Big Grocery Creek 230kV switching station looped in the Kathleen - Pitts 230kV line.
  - GPC: Rebuild the Kathleen - Big Grocery Creek 230kV line (1.5 miles) and the Bonaire Primary - Kathleen 230kV line (6 miles). Upgrade limiting elements at substation along the Kathleen - Big Grocery Creek 230kV line.
- **SUPPORTING STATEMENT:**
  - The transmission network improvements are required for a new solar interconnection and delivery.



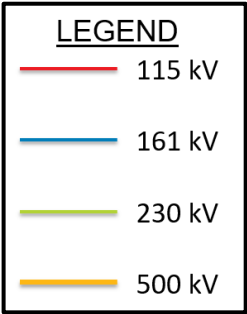
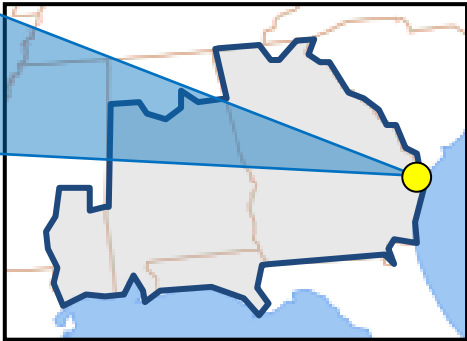
## SOUTHERN – 7E

• 2026

### MCINTOSH – PURRYSBURG 230KV REACTORS AND REBUILDS



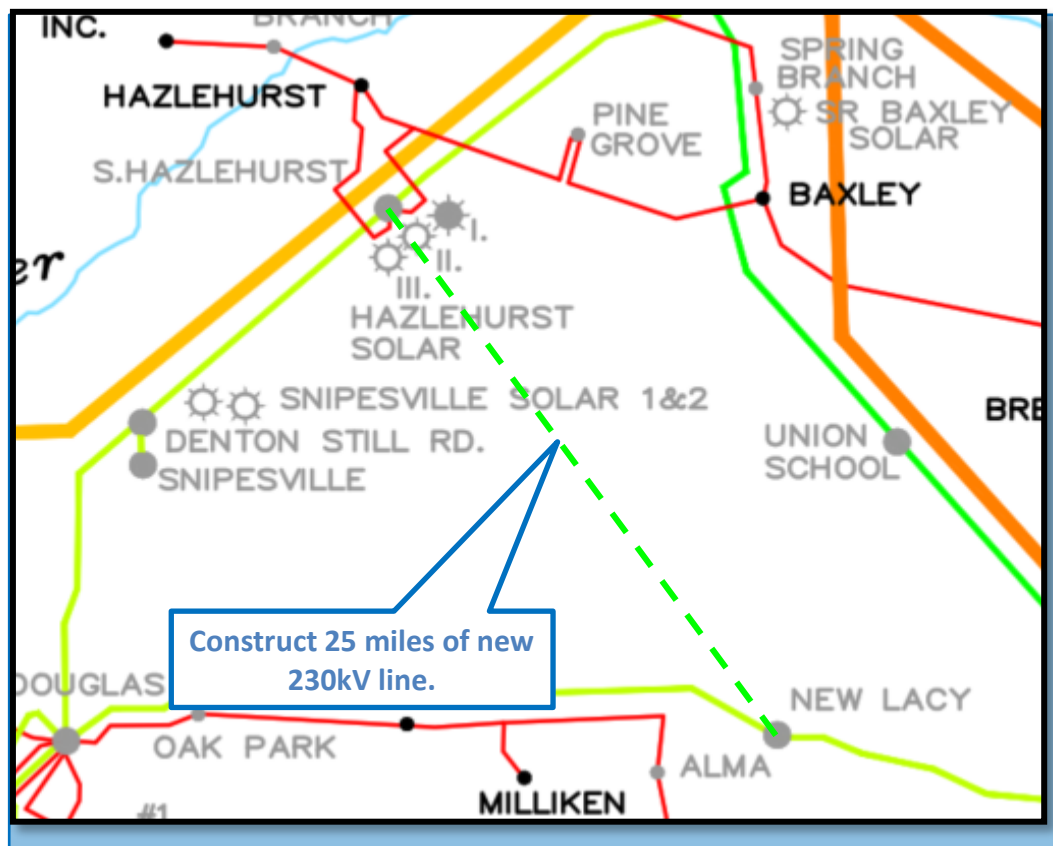
- **DESCRIPTION:**
  - Install reactors on the McIntosh - Purrysburg (Black and White) 230kV tie lines at McIntosh. Rebuild 0.1 miles (GPC portion) for both lines to (2) 200C 1351ACSS conductor.
- **SUPPORTING STATEMENT:**
  - The McIntosh - Purrysburg 230kV (Black & White) tie lines overload under contingency.



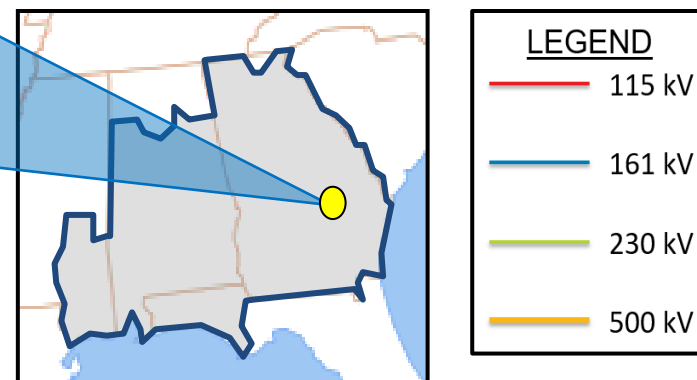
## SOUTHERN – 8E

• 2027

### GTC: SOUTH HAZLEHURST – NEW LACY 230KV LINE (NEW LINE)



- **DESCRIPTION:**
  - Build a new 230kV line between South Hazlehurst and New Lacy (approximately 25 miles).
- **SUPPORTING STATEMENT:**
  - The project addresses multiple thermal overloads that occur under contingency.





# SOUTHERN Balancing Authority Area

## SOUTHERN – 9E

• 2027

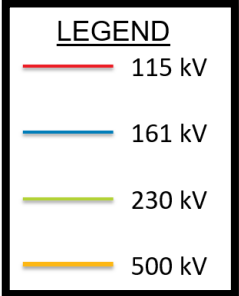
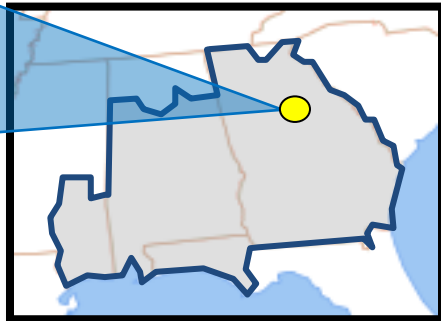
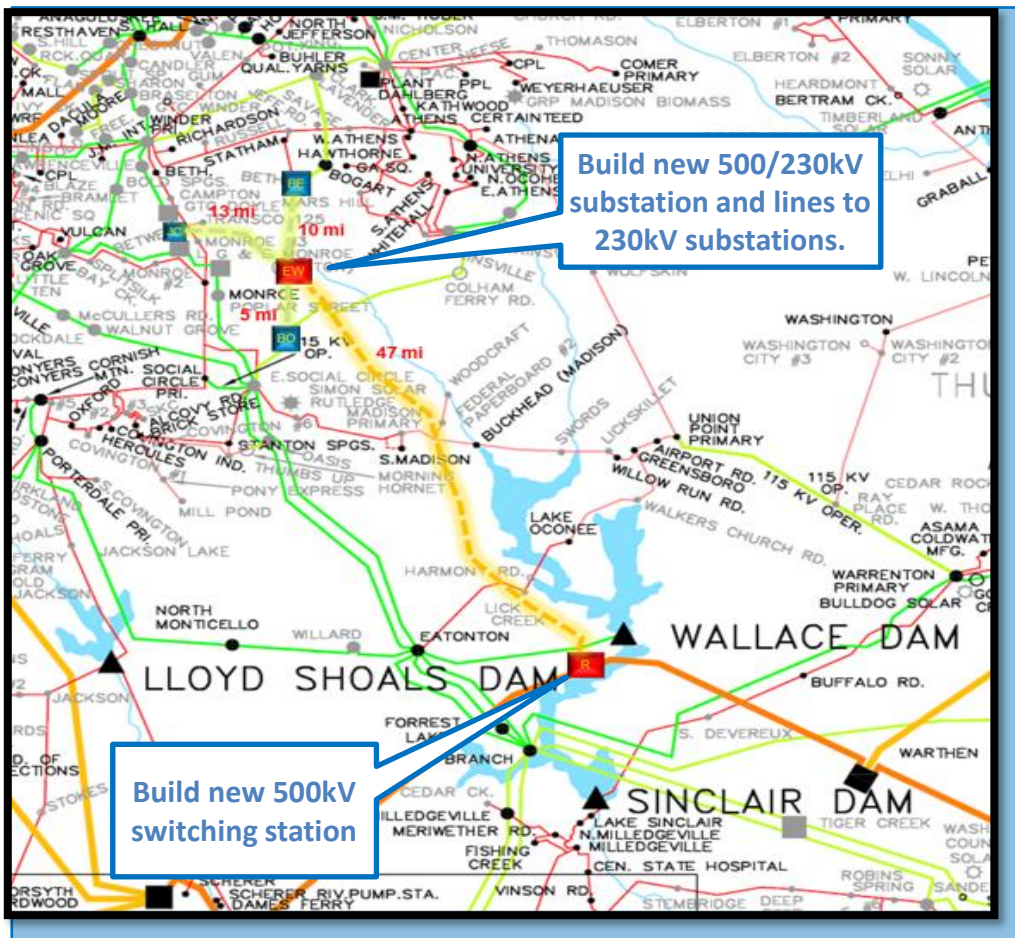
### GTC: EAST WALTON 500/230KV AREA PROJECT

• 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:

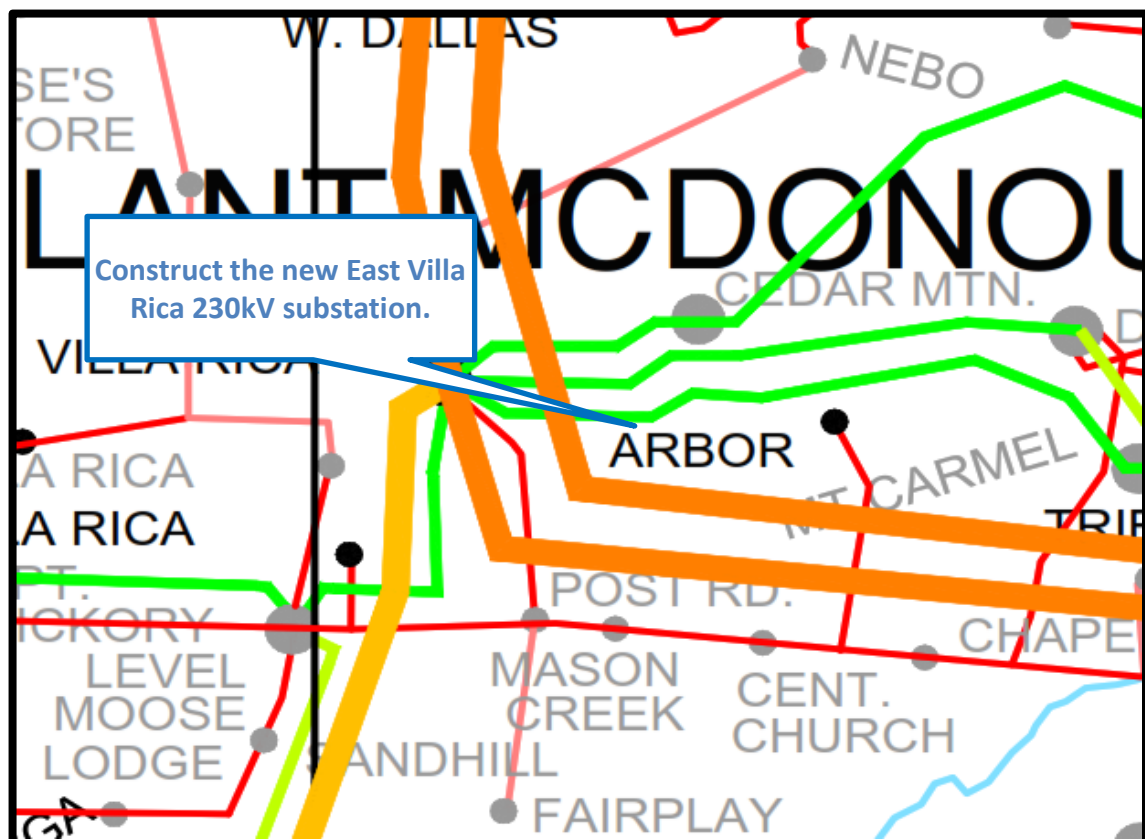
- The project addresses multiple thermal overloads that occur under contingency.



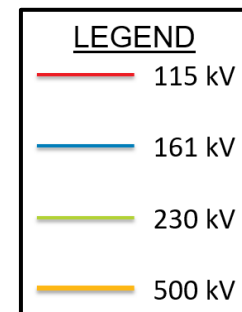
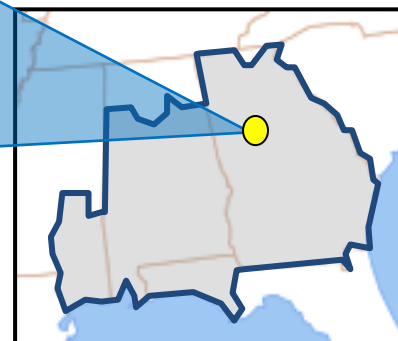
## SOUTHERN – 10E

• 2028

### EAST VILLA RICA 230KV SUBSTATION



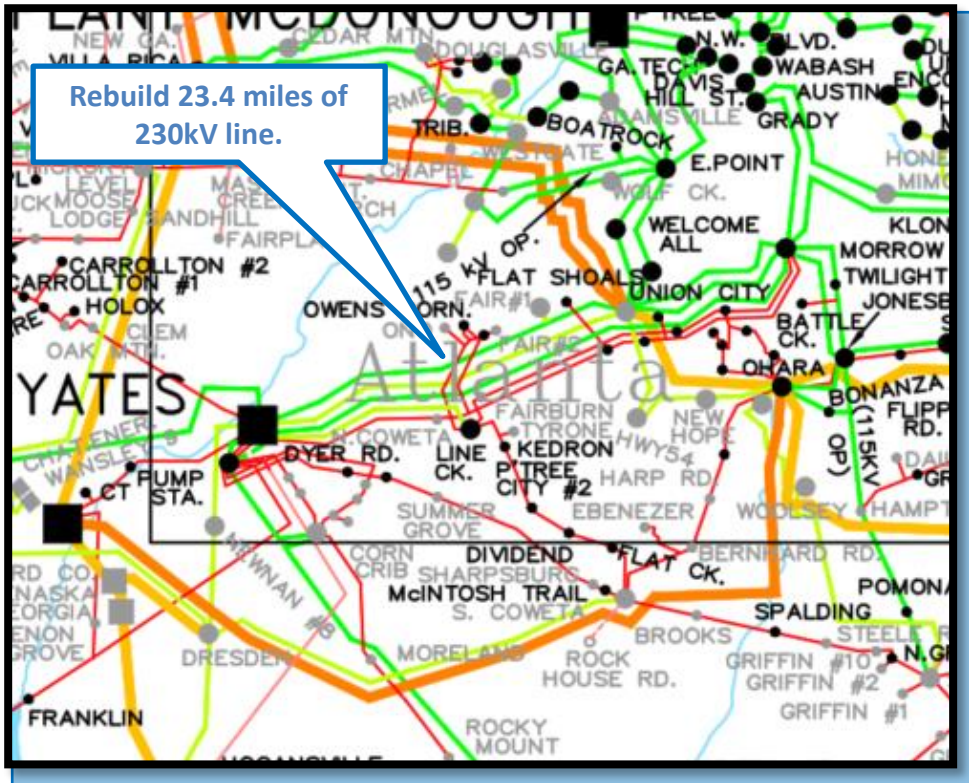
- **DESCRIPTION:**
  - Build a new 230kV substation to help serve load growth in the East Villa Rica area.
- **SUPPORTING STATEMENT:**
  - The project is required to serve load growth in the area.



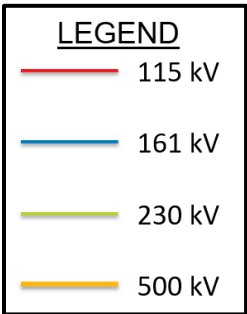
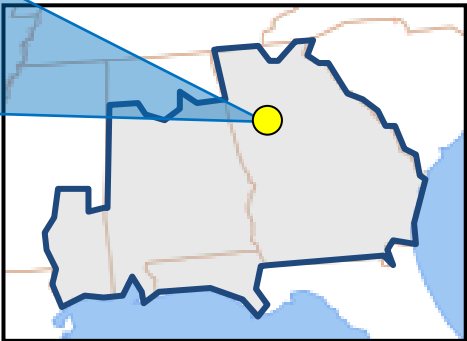
## SOUTHERN – 11E

• 2028

### UNION CITY – YATES (BLACK) 230KV LINE REBUILD



- **DESCRIPTION:**
  - Rebuild the entire Union City - Yates 230kV Black line (approximately 23.4 miles) and upgrade limiting elements at substations along the line.
- **SUPPORTING STATEMENT:**
  - The Union City - Yates 230kV Black line overloads under contingency.



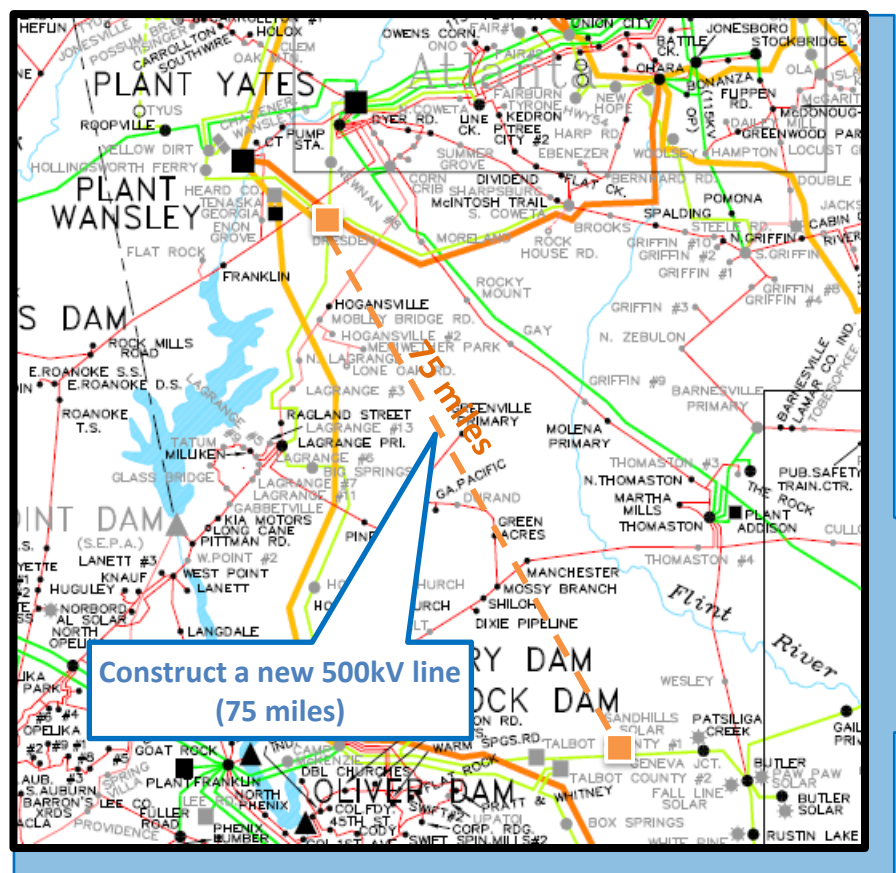


# SOUTHERN Balancing Authority Area

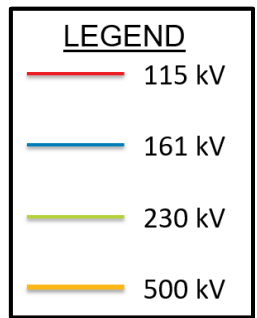
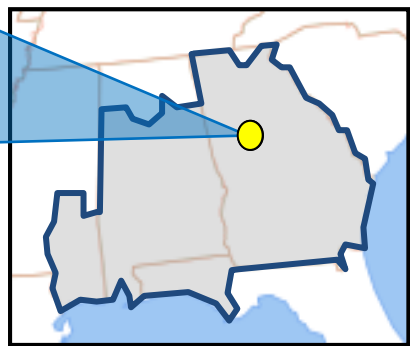
## SOUTHERN – 12E

• 2029

### GTC: DRESDEN – TALBOT 500KV LINE



- **DESCRIPTION:**
  - Build the new Talbot 500/230kV substation.
  - Build a 75 miles 500kV line from the Talbot substation to Dresden.
- **SUPPORTING STATEMENT:**
  - The project addresses multiple thermal overloads that occur under contingency.

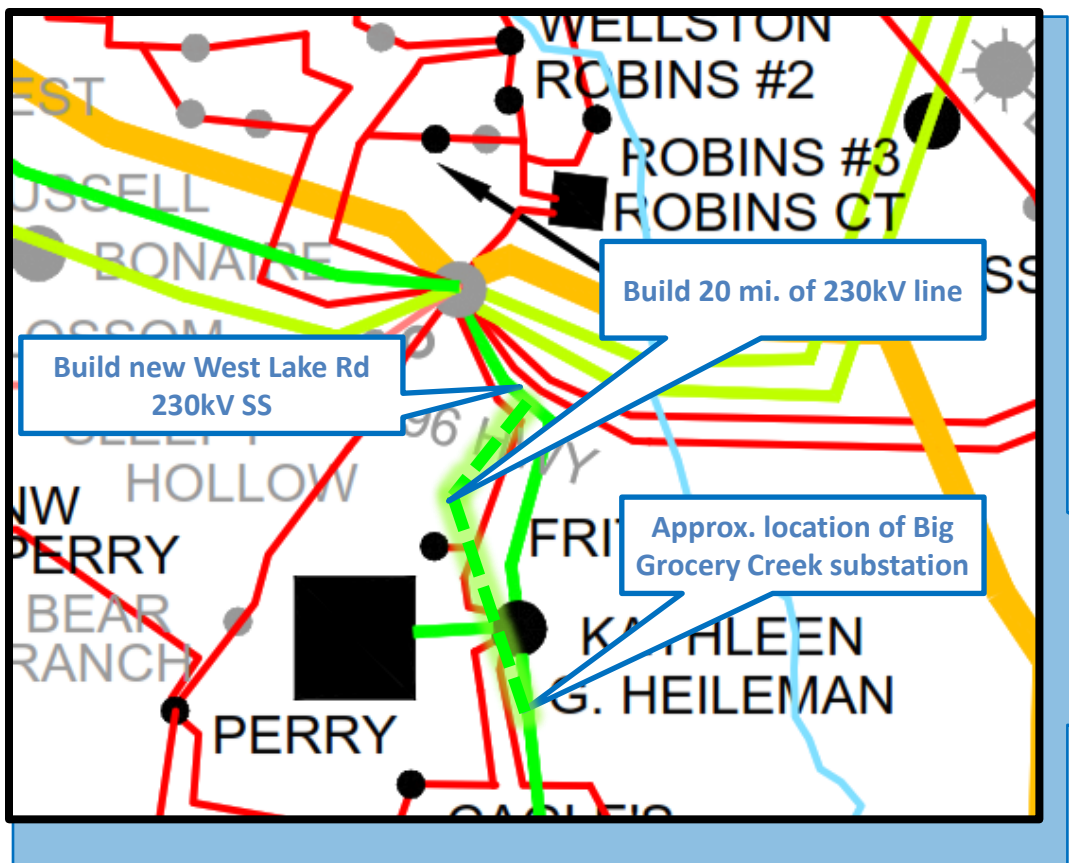




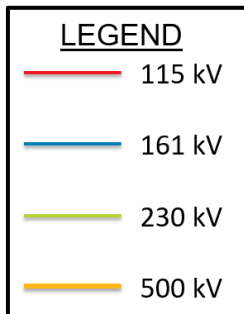
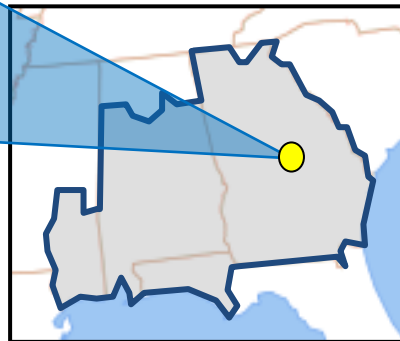
## SOUTHERN – 13E

• 2029

### GTC: BIG GROCERY – WESTLAKE ROAD 230KV LINE



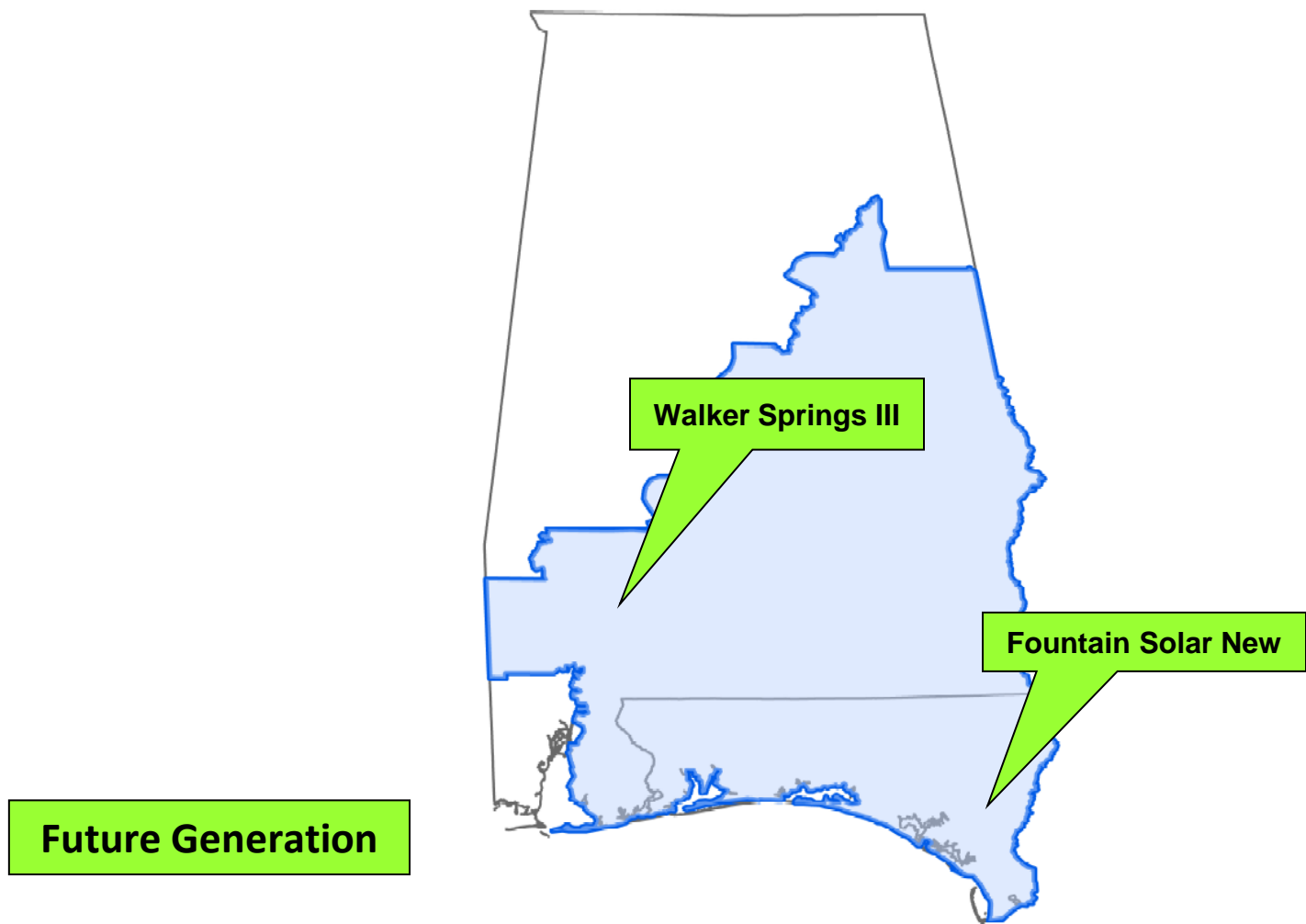
- **DESCRIPTION:**
  - Build the new Westlake Road 230kV switching station looping in the Bonaire Primary - South Macon 230kV and Bonaire Primary - Savage Creek 230kV lines.
  - Build the new Big Grocery Creek - Westlake Road 230kV line, approximately 20 miles.
- **SUPPORTING STATEMENT:**
  - The transmission network improvements are required for a new solar interconnection and delivery.



## POWERSOUTH Planning Authority Area 2024 Generation Assumptions

## POWERSOUTH – Generation Assumptions

The following diagram depicts the location of generation assumptions that change throughout the ten year planning horizon for the 2024 SERTP Process.



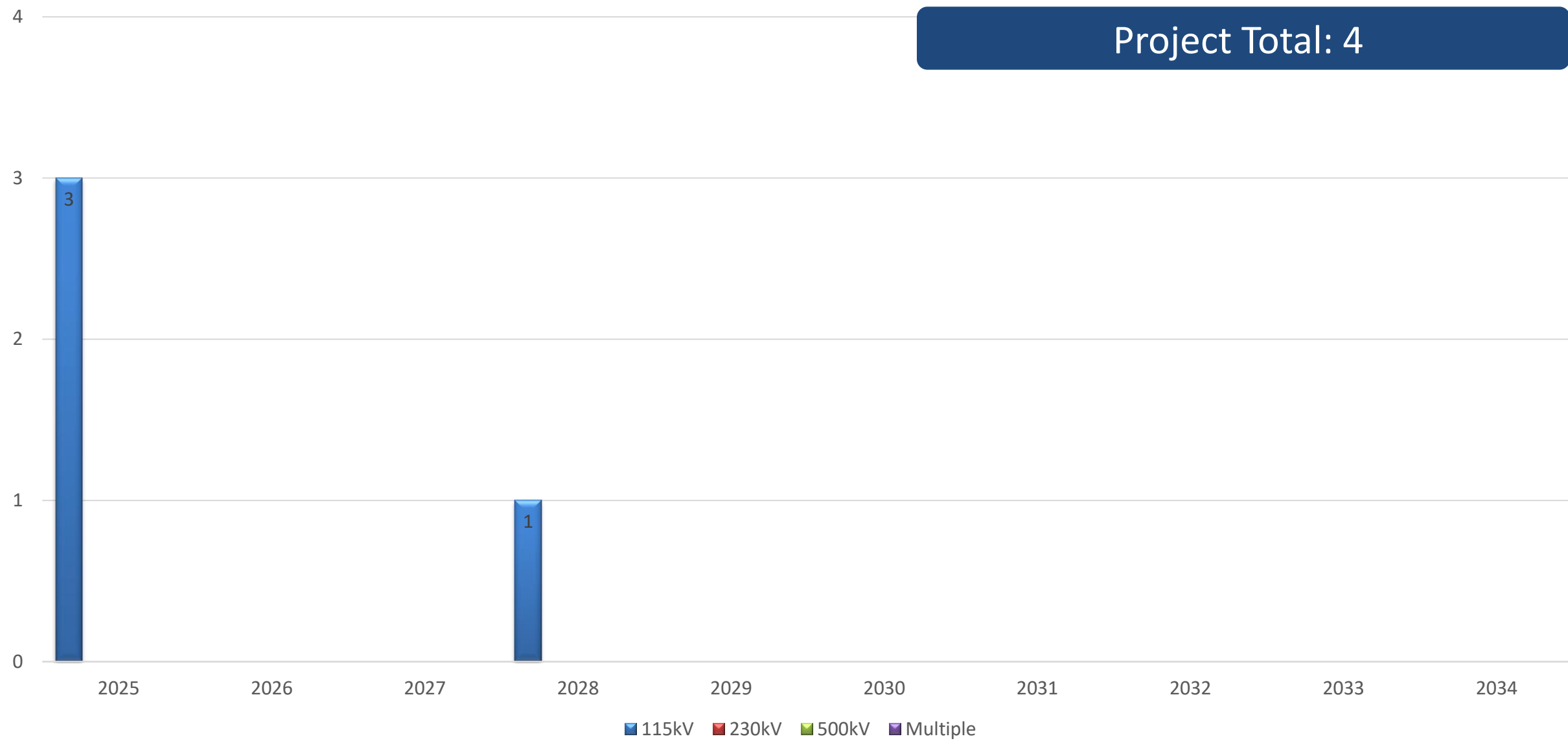
POWERSOUTH – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2024 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Fountain	Solar	75	75	75	75	75	75	75	75	75	75
Walker Springs III	Solar	--	80	80	80	80	80	80	80	80	80

## POWERSOUTH Planning Authority Area Preliminary Transmission Expansion Plan

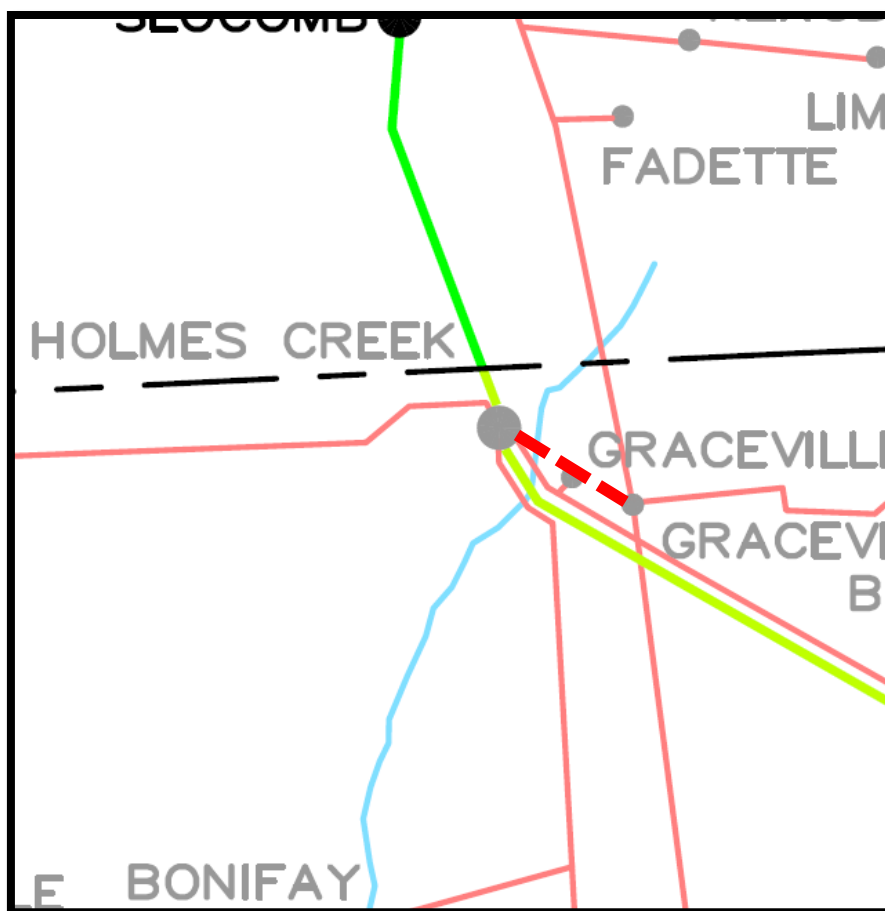
# PS Project Summary



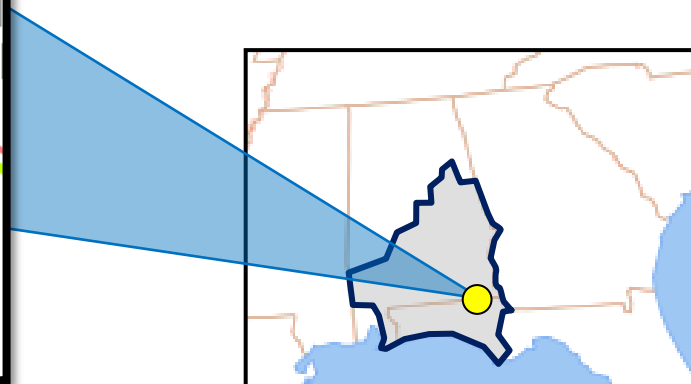
## POWERSOUTH - 1

• 2025

### Graceville – Holmes Creek 115 KV Transmission Tie Line



- **DESCRIPTION:**
  - Construct approximately 1.08 miles of new 115 kV transmission line from Graceville Switching Station to FPL's Homes Creek Station with 795 ACSR at 100°C.
- **SUPPORTING STATEMENT:**
  - Improves voltage support on PowerSouth system in the area



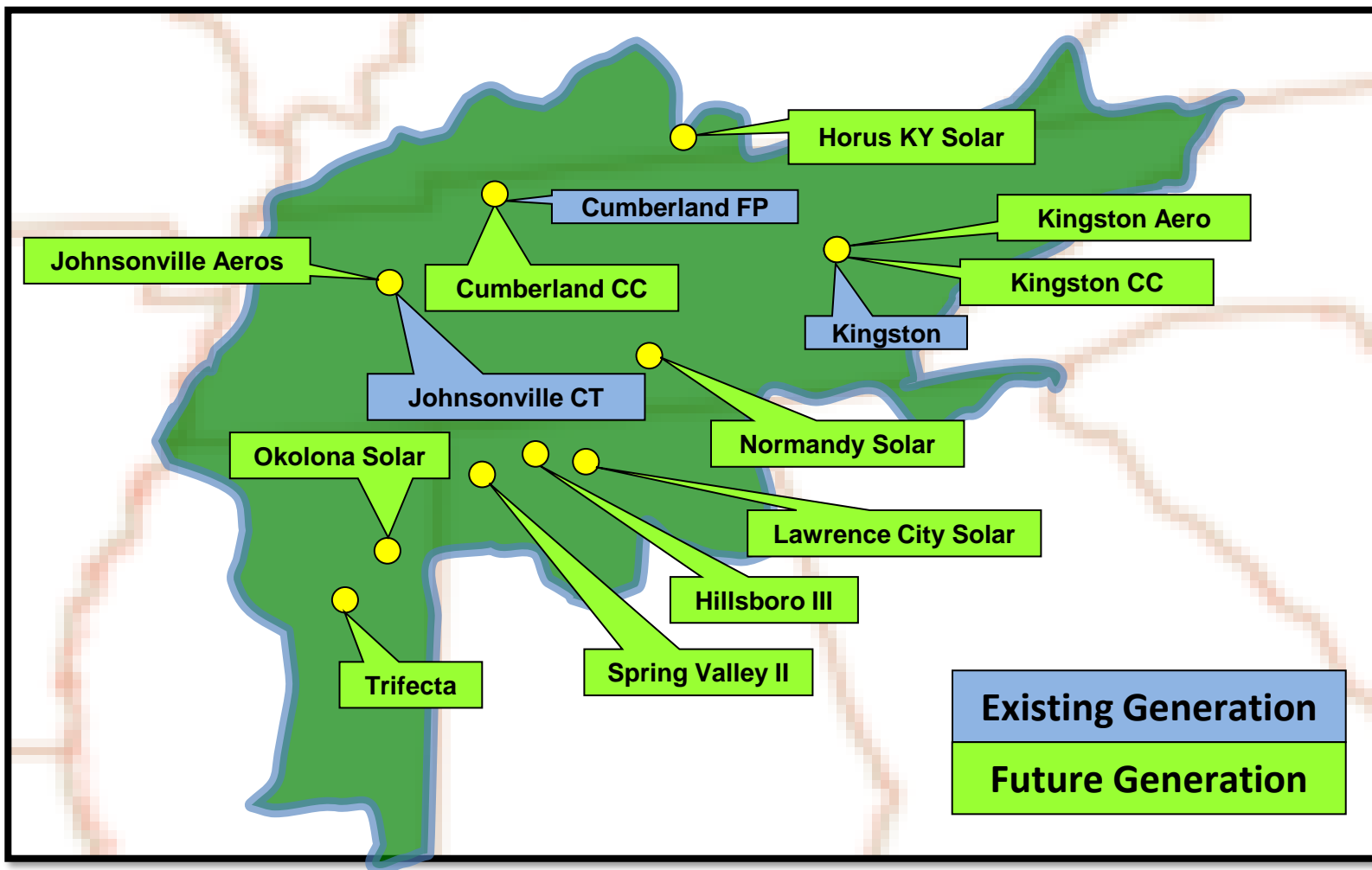
TVA Balancing Authority Area

## 2024 Generation Assumptions



## TVA – Generation Assumptions

The following diagram depicts the location of generation assumptions that change throughout the ten year planning horizon for the 2024 SERTP Process.



# TVA Balancing Authority Area

## TVA – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2024 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
JOHNSONVILLE CT	GAS	0	--	--	--	--	--	--	--	--	--
CUMBERLAND FP UNIT 2	COAL	1130	1130	0	--	--	--	--	--	--	--
CUMBERLAND FP UNIT 1	COAL	1130	1130	1130	1130	0	--	--	--	--	--
KINGSTON FP	COAL	1157	1157	1157	0	--	--	--	--	--	--
JOHNSONVILLE AEROS	GAS	530	530	530	530	530	530	530	530	530	530
CUMBERLAND CC	GAS	--	--	1346	1346	1346	1346	1346	1346	1346	1346
KINGSTON CC	GAS	--	--	--	715	715	715	715	715	715	715
KINGSTON AERO	GAS	--	--	--	848	848	848	848	848	848	848

# TVA Balancing Authority Area

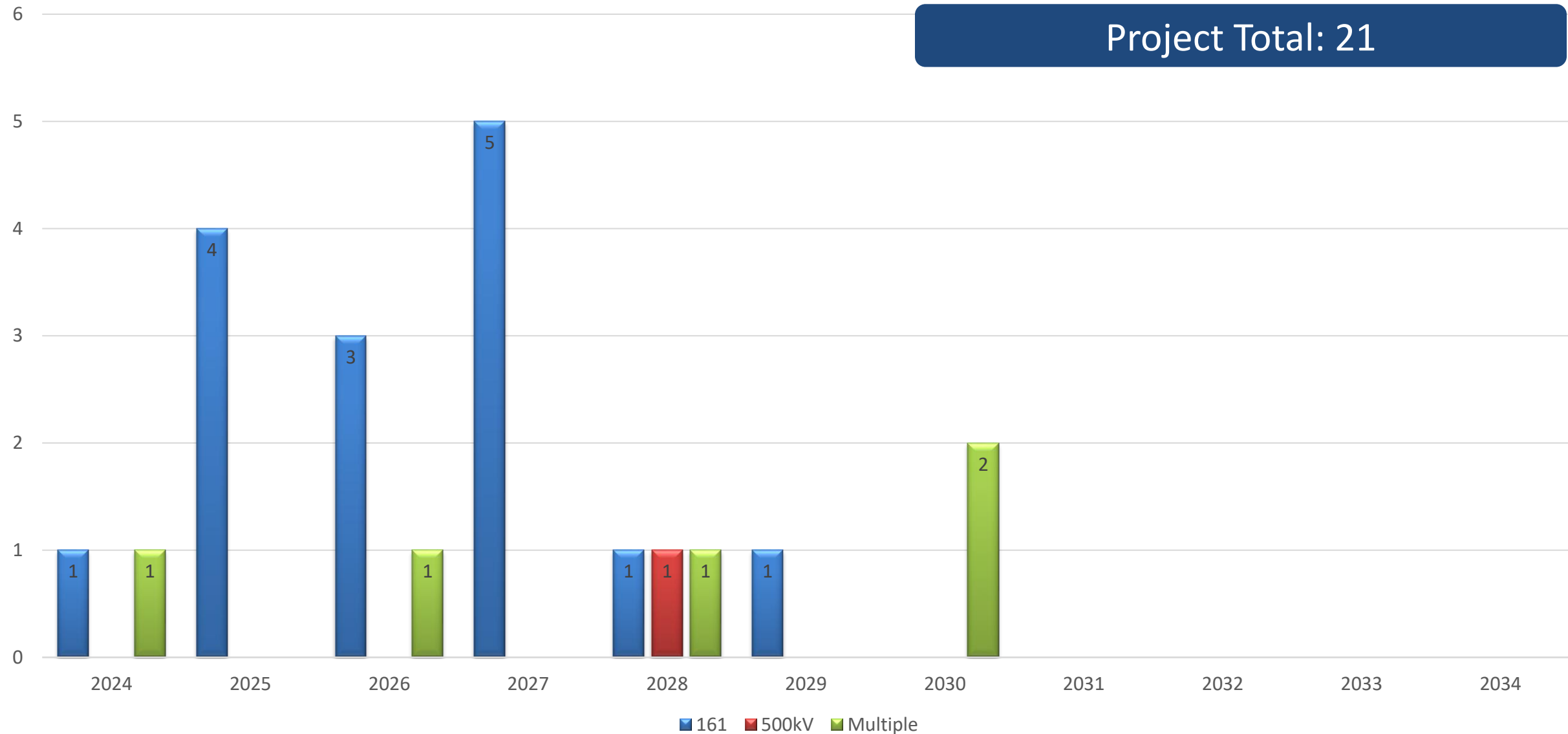
## TVA – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten year planning horizon for the 2024 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
TRIFECTA	SOLAR	--	--	68	68	68	68	68	68	68	68
HILLSBORO III	SOLAR	--	--	200	200	200	200	200	200	200	200
SPRING VALLEY II	SOLAR	--	--	200	200	200	200	200	200	200	200
LAWRENCE CITY	SOLAR	--	100	100	100	100	100	100	100	100	100
OKOLONA	SOLAR	--	--	145	145	145	145	145	145	145	145
NORMANDY	SOLAR	--	213	213	213	213	213	213	213	213	213
HORUS KY	SOLAR	--	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3

# TVA Project Summary

Project Total: 21



TVA Balancing Authority Area

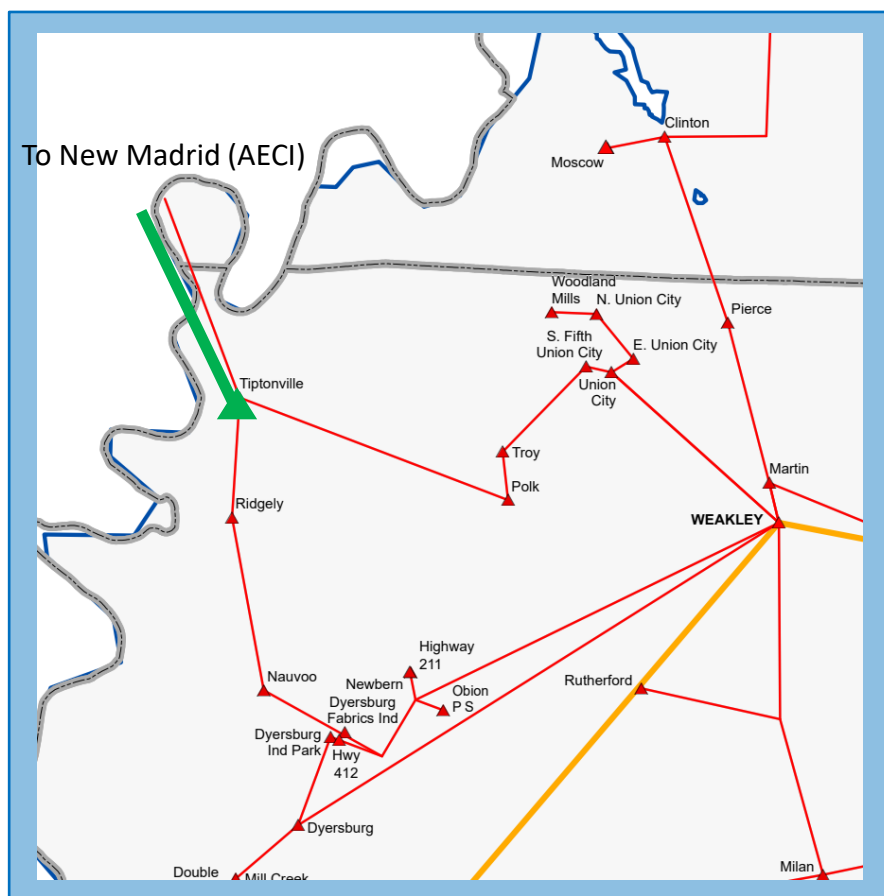
Preliminary Transmission Expansion Plan

# TVA Balancing Authority Area

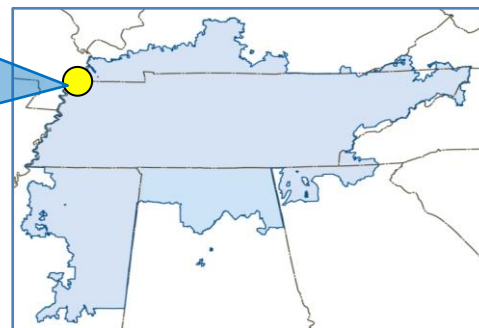
## TVA – 1

• 2025

### TIPTONVILLE-NEW MADRID #2 TIE LINE



- **DESCRIPTION:**
  - Construct approximately 5.3 miles of new 161 kV transmission line from Tiptonville to New Madrid to form the second circuit, and reconductor approximately 5.3 miles of the Tiptonville to New Madrid 161 kV #1 transmission line section with 1590 ACSS at 180°C.
- **SUPPORTING STATEMENT:**
  - Additional thermal capacity on this path is needed.

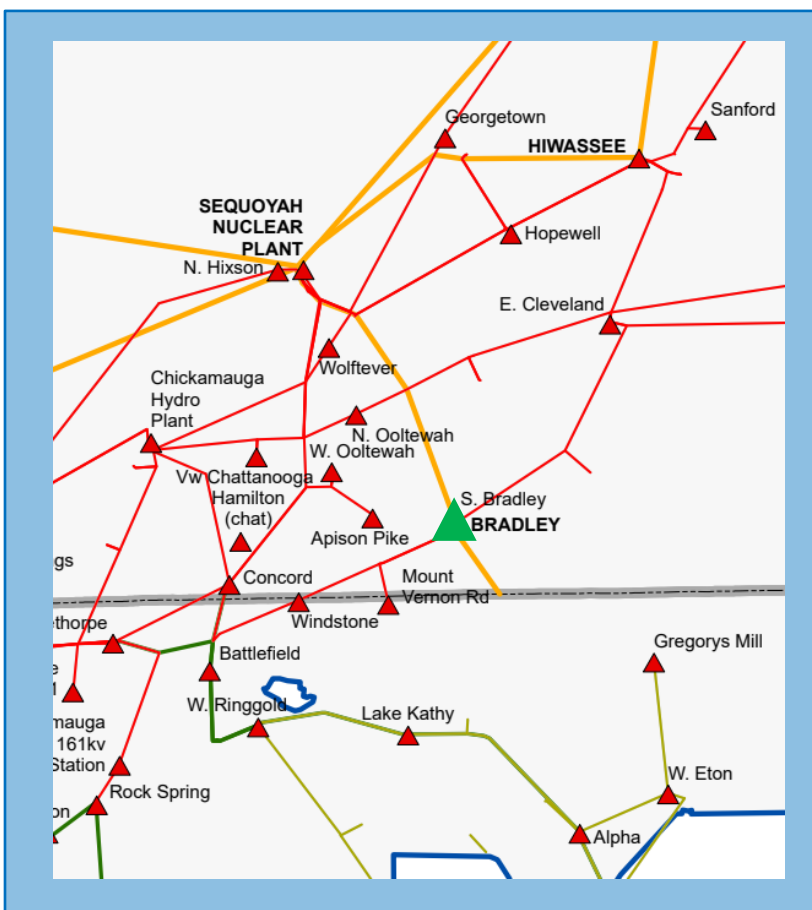


# TVA Balancing Authority Area

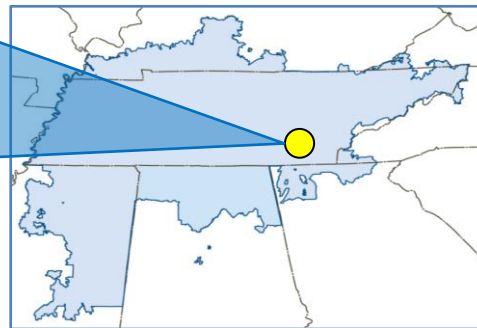
## TVA – 2

• 2026

### BRADLEY 500 KV SWITCH HOUSE



- **DESCRIPTION:**
  - Construct a new 500 kv switch house.
- **SUPPORTING STATEMENT:**
  - Additional thermal capacity and voltage support is needed in the Bradley County, TN area under contingency.

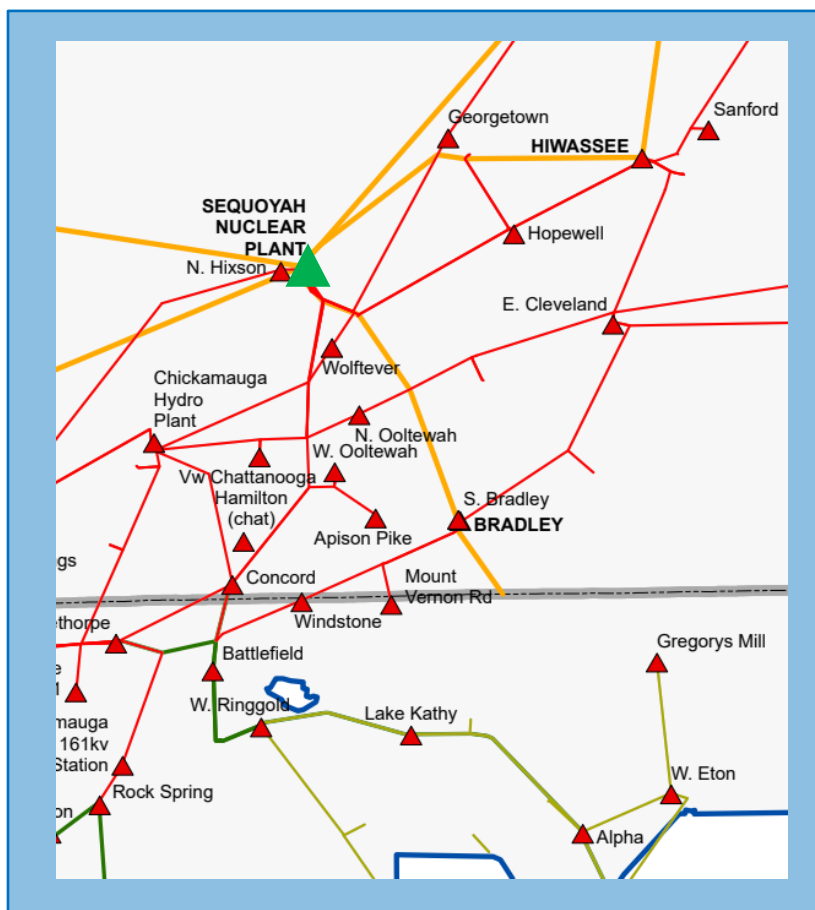


# TVA Balancing Authority Area

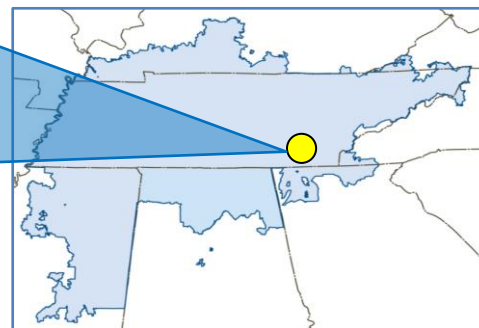
## TVA – 3

• 2030

### SEQUOYAH 500 KV SWITCH HOUSE



- **DESCRIPTION:**
  - Construct a new 500 kV switch house with new assets including breakers at the Sequoyah 500 kV substation
- **SUPPORTING STATEMENT:**
  - Additional thermal capacity and voltage support is needed in the Hamilton County, TN area under contingency.



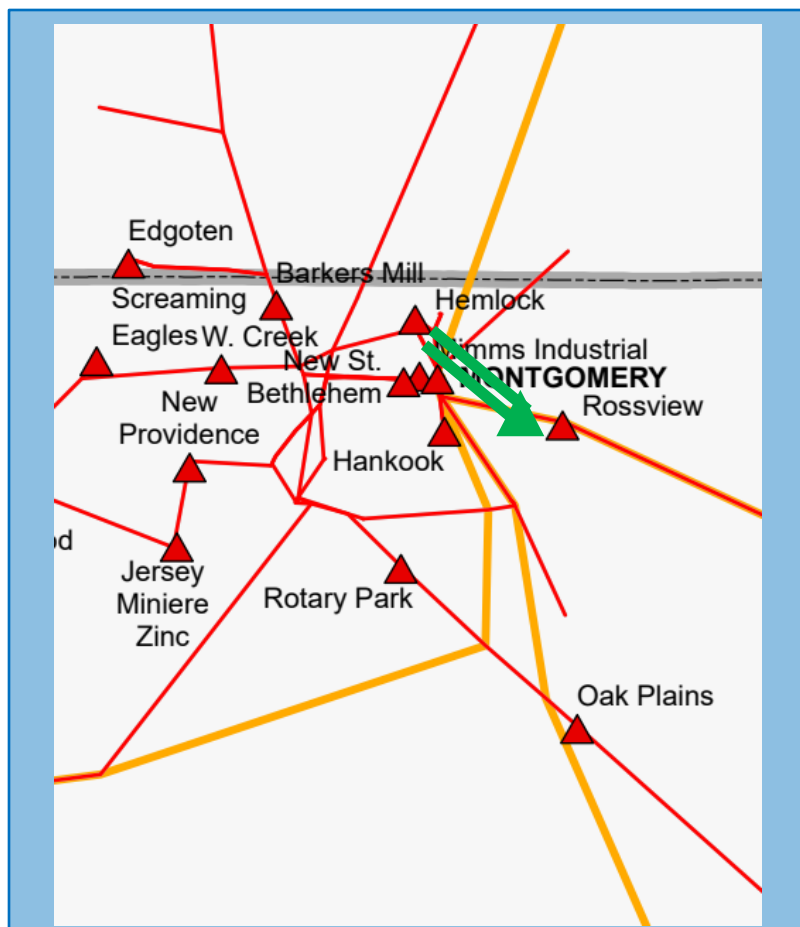


# TVA Balancing Authority Area

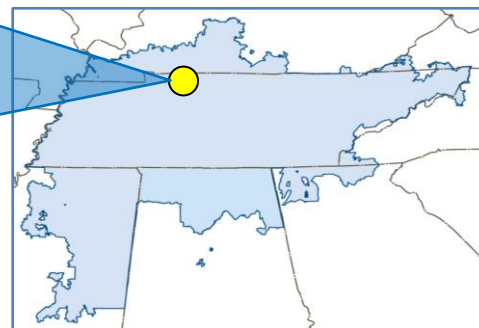
## TVA – 4

• 2030

### HAMPTON 500 KV STATION



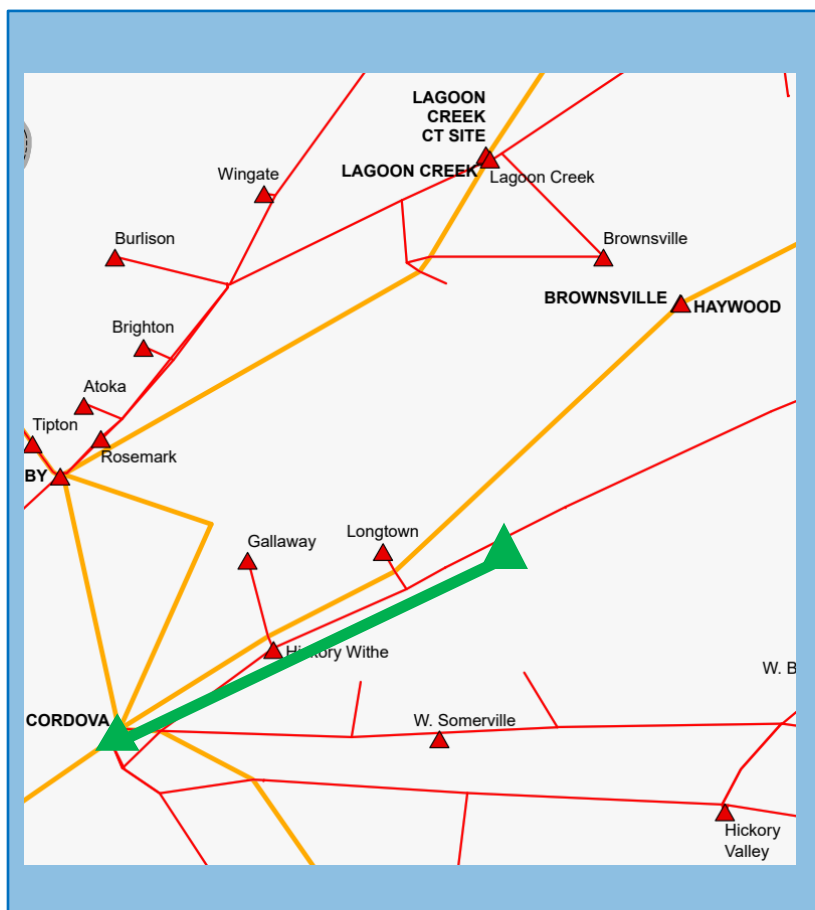
- **DESCRIPTION:**
  - Construct new 500/161 kV station. Loop in existing Montgomery-Wilson 500kV line (approximately 0.1 mile from station to loop point). Loop in existing double circuit 161kV from Montgomery to Hemlock.
- **SUPPORTING STATEMENT:**
  - Additional thermal capacity and voltage support is needed in the Montgomery County, TN & Todd County, KY area under contingency.



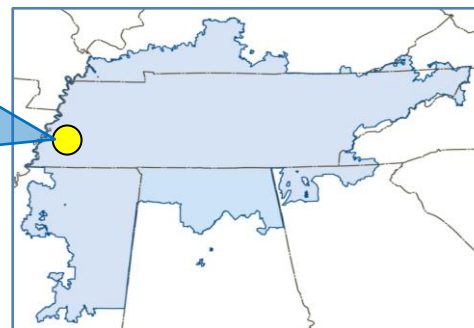
## TVA – 5

• 2027

### CORDOVA - YUM YUM TL RECONDUCTOR



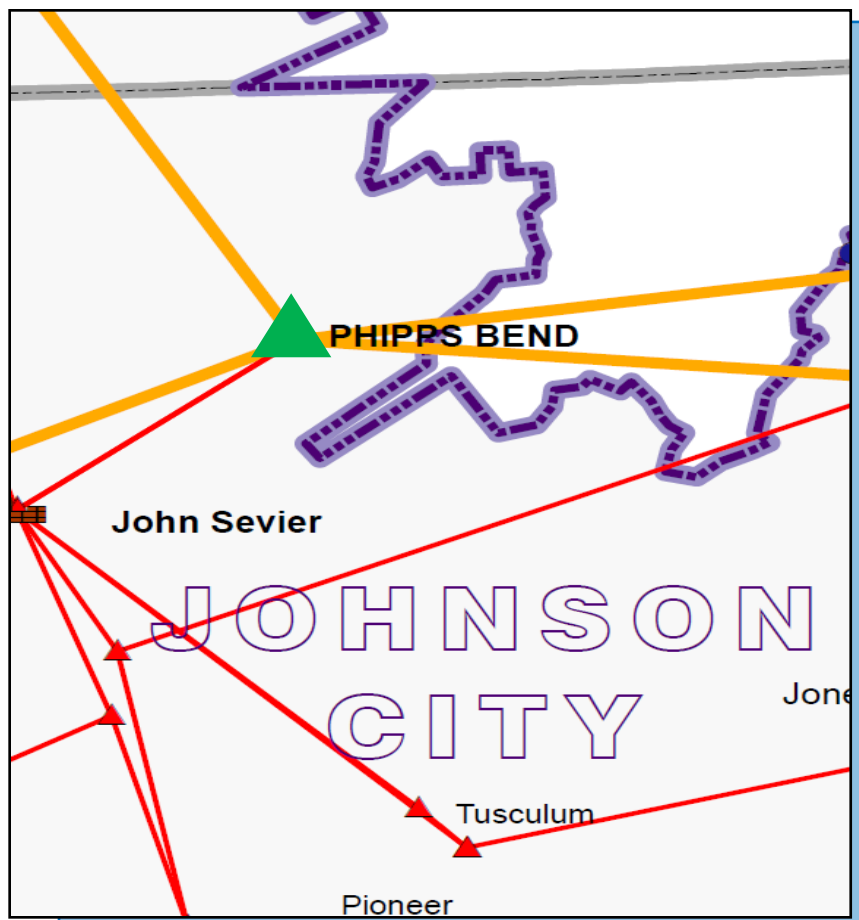
- **DESCRIPTION:**
  - Reconductor approximately 23.5 miles of the Cordova - Yum Yum 161 kV transmission line section with TS - 1098.6 kcmil Ruddy, sag temp 180°C.
- **SUPPORTING STATEMENT:**
  - Additional thermal capacity is needed for economic development in the Memphis, TN area



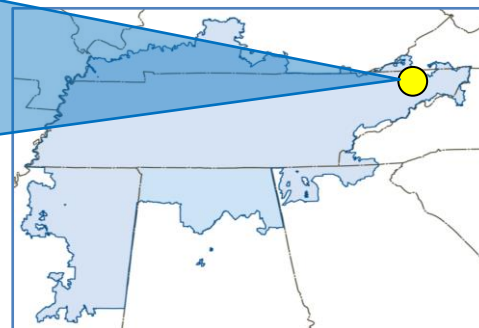
## TVA – 6

• 2024

### 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.

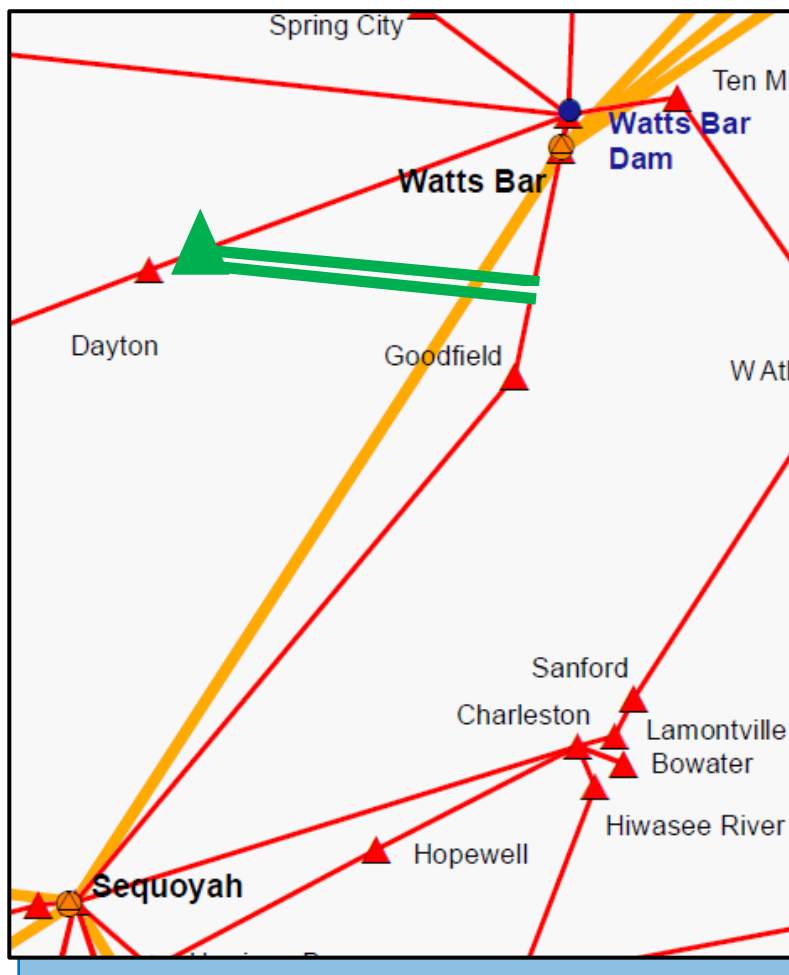


# TVA Balancing Authority Area

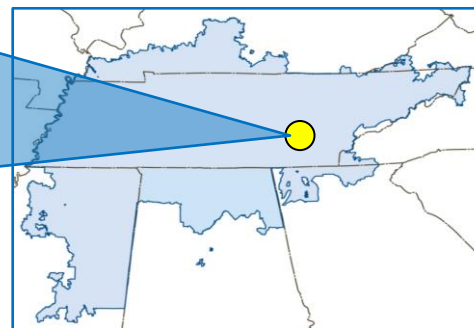
## TVA – 7

• 2025

### 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:**
  - Additional thermal capacity and voltage support is needed in the North Dayton, TN area under contingency.

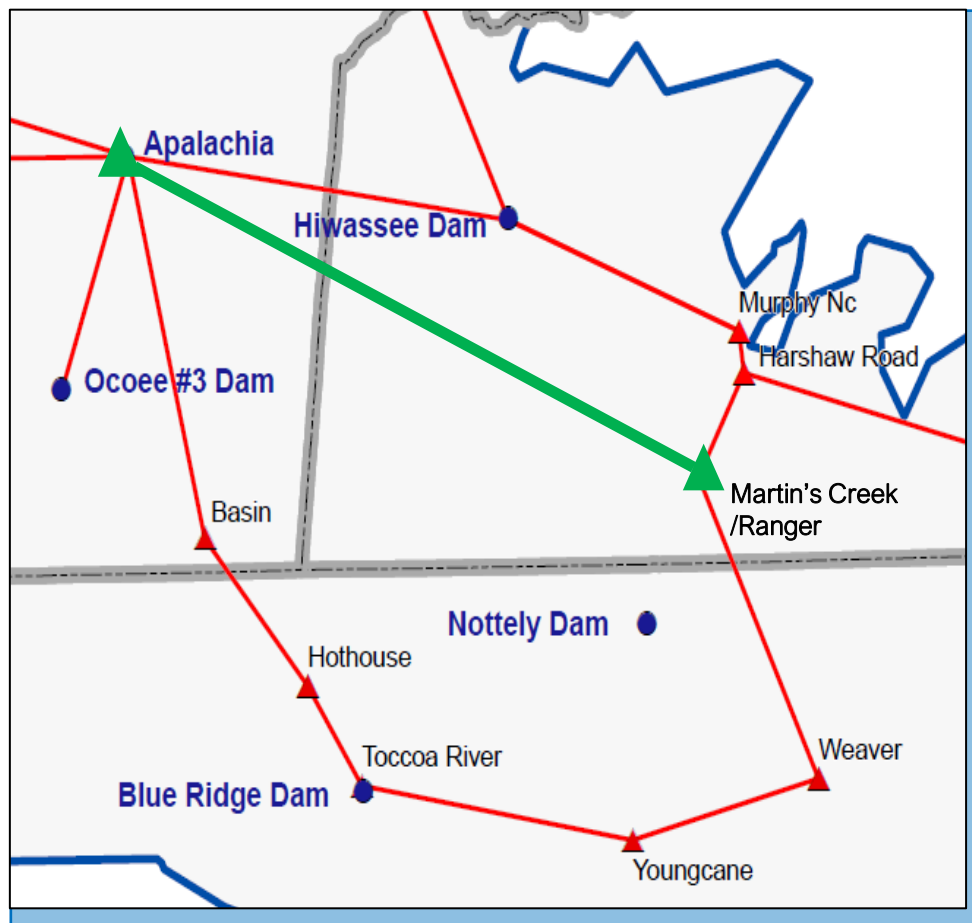


# TVA Balancing Authority Area

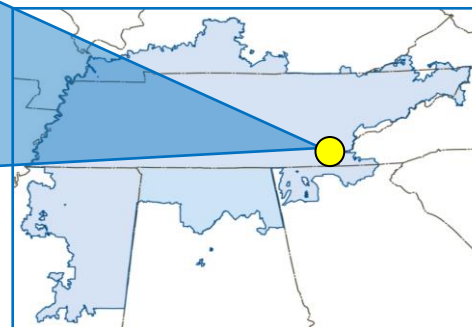
## TVA – 8

• 2029

### APALACHIA AREA IMPROVEMENT PLAN



- **DESCRIPTION:**
  - Construct Martin's Creek 161 kV substation. Construct approximately 25 miles of new TL from Appalatchia 161 kV substation to Ranger 161 kV switching station.
- **SUPPORTING STATEMENT:**
  - The Appalatchia - Basin 161 kV transmission line overloads under contingency.

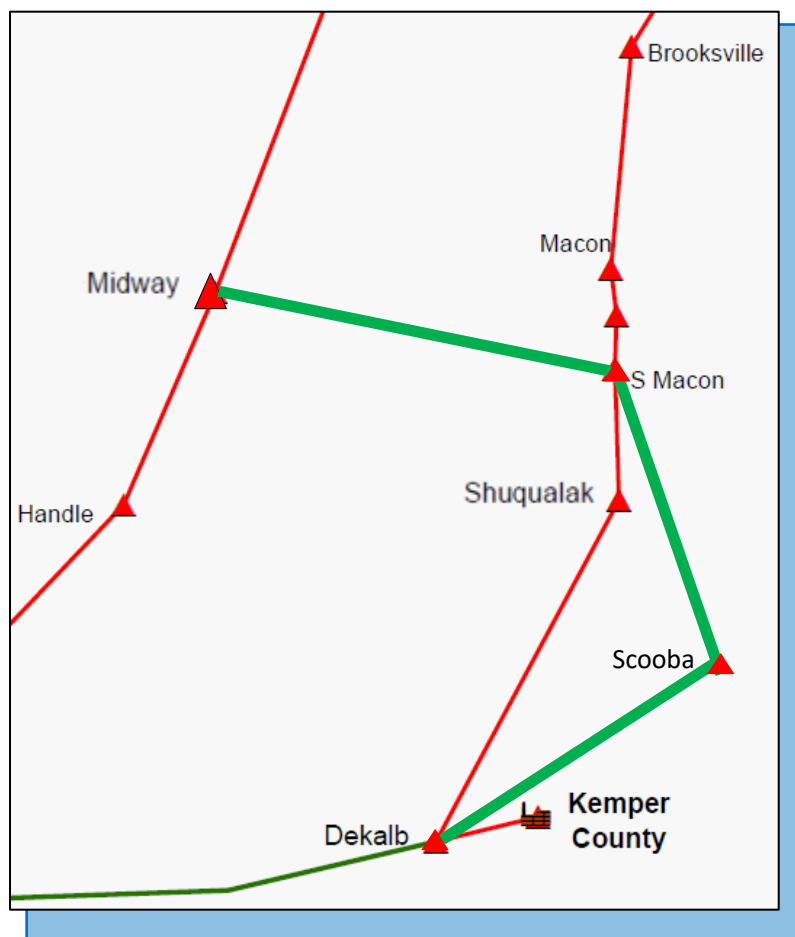


# TVA Balancing Authority Area

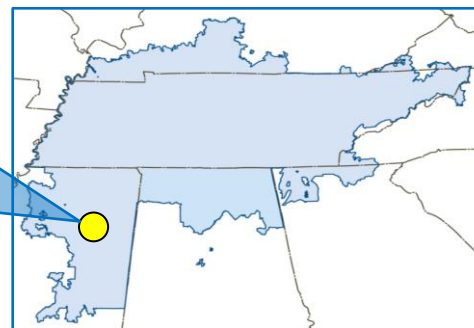
## TVA – 9

• 2028

### 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.

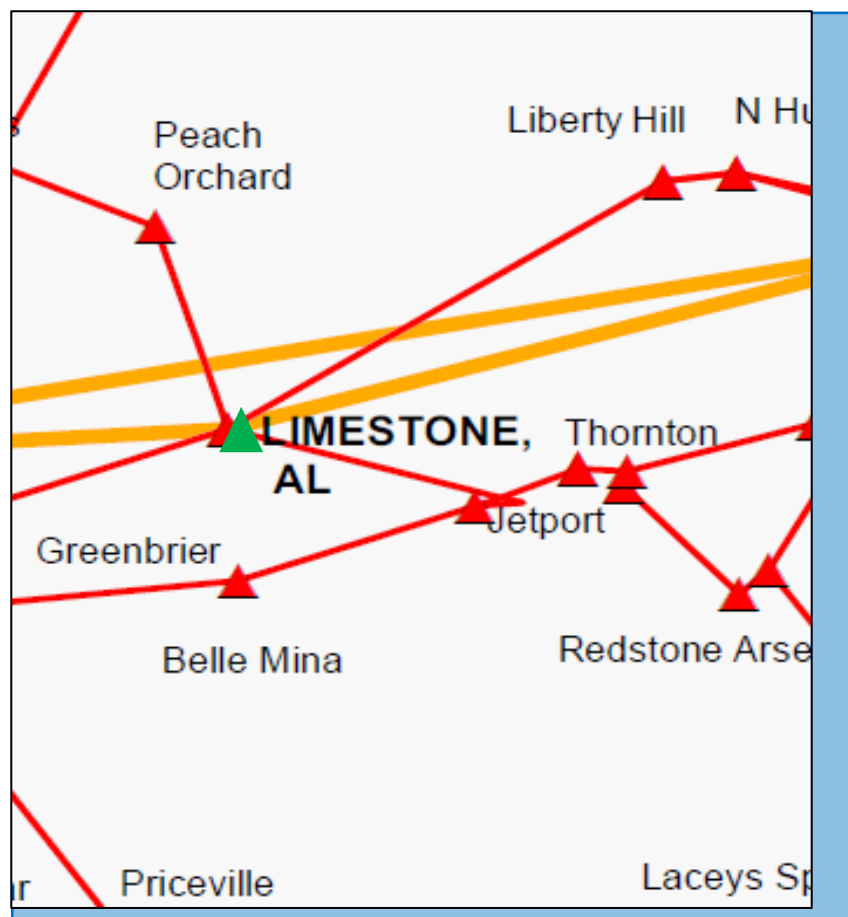


# TVA Balancing Authority Area

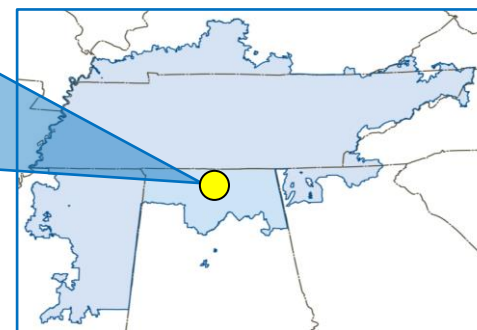
## TVA – 10

• 2028

### LIMESTONE 500KV DOUBLE BREAKER AND LOOP



- **DESCRIPTION:**
  - Construct a double breaker station in the 500kV yard at Limestone and loop in the Browns Ferry - Maury 500kV TL.
- **SUPPORTING STATEMENT:**
  - The Trinity 500/161kV transformer overloads under contingency.

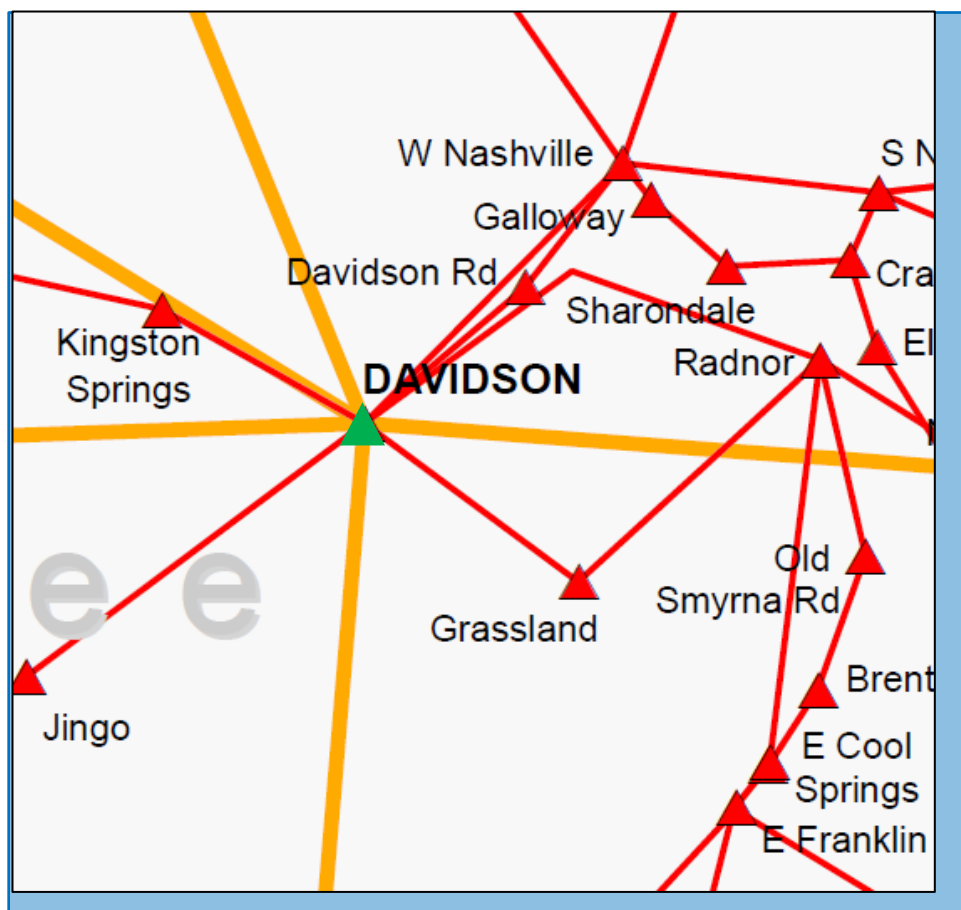


# TVA Balancing Authority Area

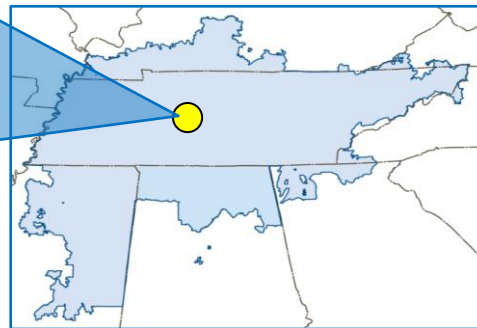
## TVA – 11

• 2028

### DAVIDSON 500 KV 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.

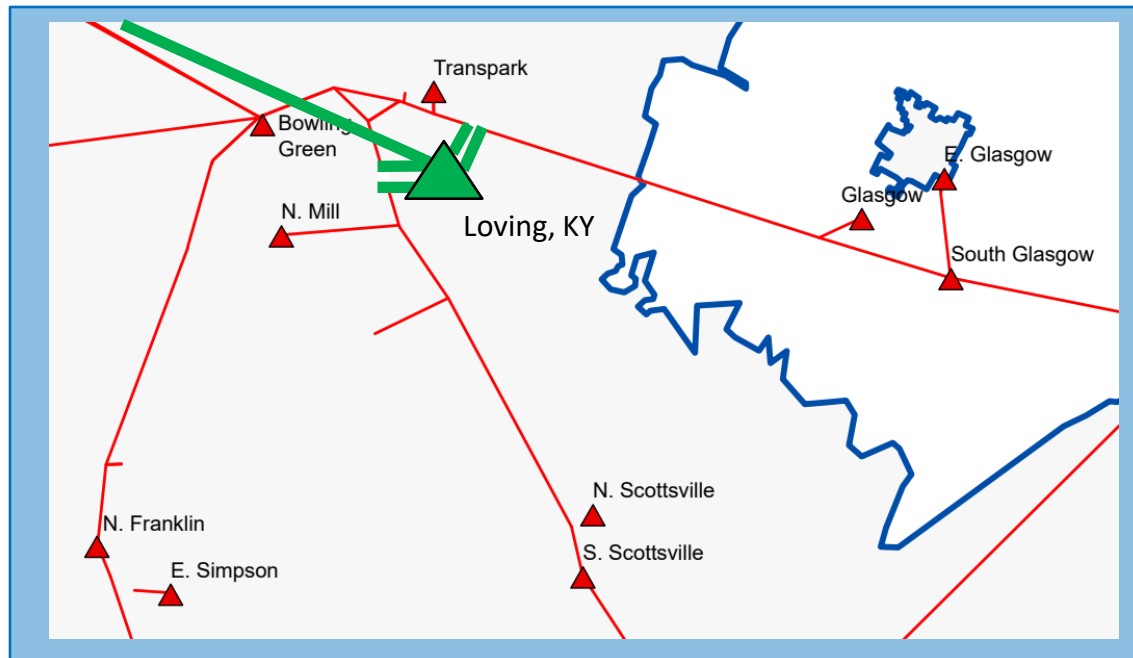




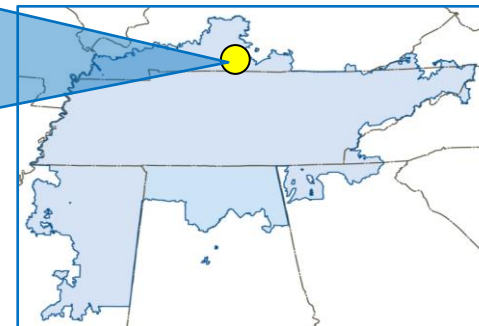
## TVA – 12

• 2028

### LOVING, KY 161KV STATION



- **DESCRIPTION:**
  - Construct the Loving, KY 161kV Substation.
  - Reconductor BG - Lost City and BG to E. BG.
- **SUPPORTING STATEMENT:**
  - Additional capacity is needed in the Bowling Green area for economic development.

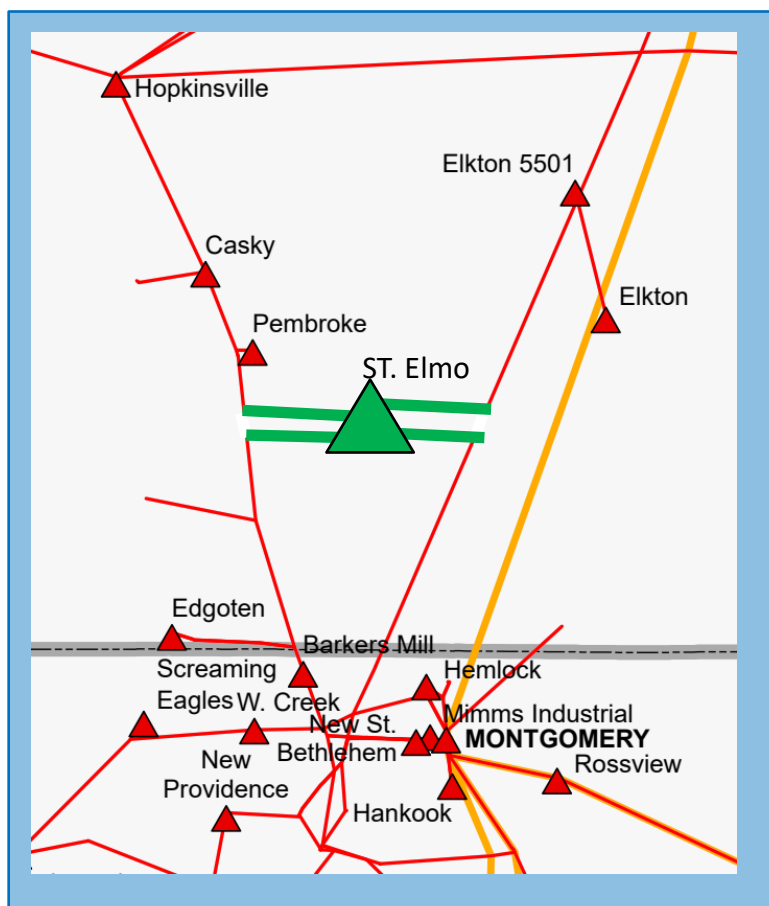


# TVA Balancing Authority Area

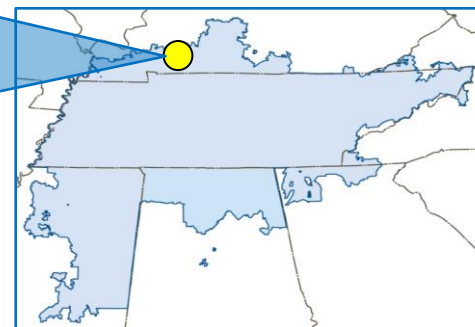
## TVA – 13

• 2028

### ST. ELMO, KY 161 KY SUBSTATION



- **DESCRIPTION:**
  - Construct new 161kV 4 position ring bus substation. Loop in Edgoten-Casky 161kV transmission line (approximately 0.6 miles from station to loop point). Loop in Paradise-Clarksville 161kV transmission line (approximately 10 miles from station to loop point).
- **SUPPORTING STATEMENT:**
  - Voltage support and additional capacity is needed for economic development in the Bowling Green area.



SERTP

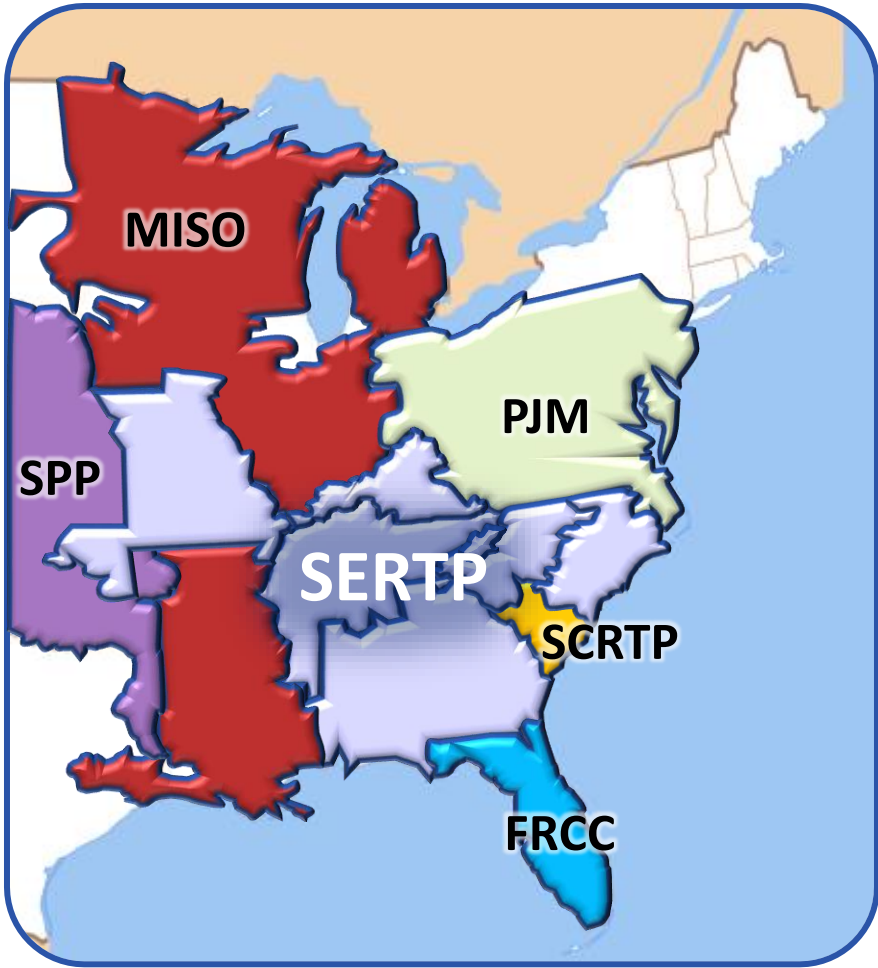
## Miscellaneous Updates

## Regional Analyses Update

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- SERTP Sponsors are currently developing a list of potential alternative transmission projects to evaluate during the 2024 planning process
- These projects are generally developed by identifying areas with multiple forecasted transmission projects which could be potentially displaced by a regional transmission project

## Interregional Update



## Interregional Update

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- Latest interregional coordination procedures are posted on the [SERTP website](#)
- Meetings will occur in the third quarter to facilitate the exchange of power-flow models and transmission expansion plans.

## Transmission Needs Driven by Public Policy Requirements

- The SERTP process received nine submissions for transmission needs driven by Public Policy Requirements.
- Evaluation Criteria

Is the PPR an enacted local, state, or federal law and/or regulation?



Does the PPR drive a transmission need?



Is the transmission need already addressed or otherwise being evaluated?

## Transmission Needs Driven by Public Policy Requirements

- Two submissions proposed public policy requirements from Executive Orders. FERC has limited PPRs to public policy requirements established by "enacted statutes (i.e., passed by the legislature and signed by the executive) and regulations promulgated by a relevant jurisdiction, whether within a state or at the federal level. Thus, the proposed PPRs do not meet FERC's requirements.
- Two submissions proposed public policy requirements from the Fiscal Responsibility Act of 2023. The Fiscal Responsibility Act directed NERC to complete an interregional transfer capability study due to FERC by December 2, 2024. This does not constitute a PPR driving transmission needs for further evaluation in the 2024 transmission planning cycle.
- One submission proposed public policy requirements from the Inflation Reduction Act (IRA). The IRA does not require or direct transmission owners or providers to take specific action; therefore, no transmission needs for this proposed PPR have been identified for further evaluation in the 2024 transmission planning cycle.
- One submission proposed public policy requirements from a TVA Board Resolution. Board resolution documents do not meet FERC's requirements for Public Policy. Therefore, no transmission needs for this proposed PPR have been identified for further evaluation in the 2024 transmission planning cycle.



## Transmission Needs Driven by Public Policy Requirements

- One submission proposed public policy requirements from the North Carolina Carbon Plan. The North Carolina Carbon Plan (NCCP) Order is being considered by Duke Energy and in activities of the Carolinas (formerly North Carolina) Transmission Planning Collaborative (CTPC). Any resulting local transmission plans have been and will be included in the SERTP process. Because of the inclusion of the local plan in the SERTP process that reflects the NCCP, no additional transmission needs for the proposed PPR have been identified for further evaluation in the 2024 transmission planning cycle.
- Two submissions proposed public policy requirements for anticipated Integrated Resource Plans (IRPs).
  - **Georgia Power Company's 2023 IRP Update:** Georgia Power's 2023 IRP Update referenced in this request was approved and an Order was issued by the Georgia Public Service Commission on April 16, 2024. Resources in the Georgia Power 2023 IRP Update will be reflected in the SERTP base case models as the detailed modeling information is provided by the Load Serving Entity.
  - **TVA's Anticipated IRP:** TVA has not yet released a 2024 IRP as indicated in this submission. Therefore, no transmission needs for this proposed PPR have been identified for further evaluation in the 2024 transmission planning cycle.

## Next Meeting Activities

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- **2024 SERTP 3<sup>rd</sup> Quarter Meeting** – *Second RPSG Meeting*
  - **Location:** Web Conference
  - **Date:** September 24, 2024
  - **Purpose:**
    - Discuss Preliminary Economic Planning Study Results
    - Discuss Previous Stakeholder Input on Transmission Expansion Plans



## Questions?

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