SERTP – 2nd Quarter Meeting

Preliminary Expansion Plan Meeting

June 24th, 2026

LG&E/KU

Louisville, KY

Safety Briefing

Please take a moment to have a safety briefing wherever you are and we will have one in the room on mute.

Agenda

- **Safety, Housekeeping, and Announcements**
- **Regional Expansion Plan Process**
  - Annual Process Overview
- **Preliminary 10 Year Transmission Expansion Plan**
  - Regional Model Assumptions
    - Load Forecast
    - Generation Assumptions
    - Transmission System Topology
- **Public Policy Requirements Stakeholder Proposal and Evaluation**
- **Miscellaneous Updates**
- **Next Meeting Activities**

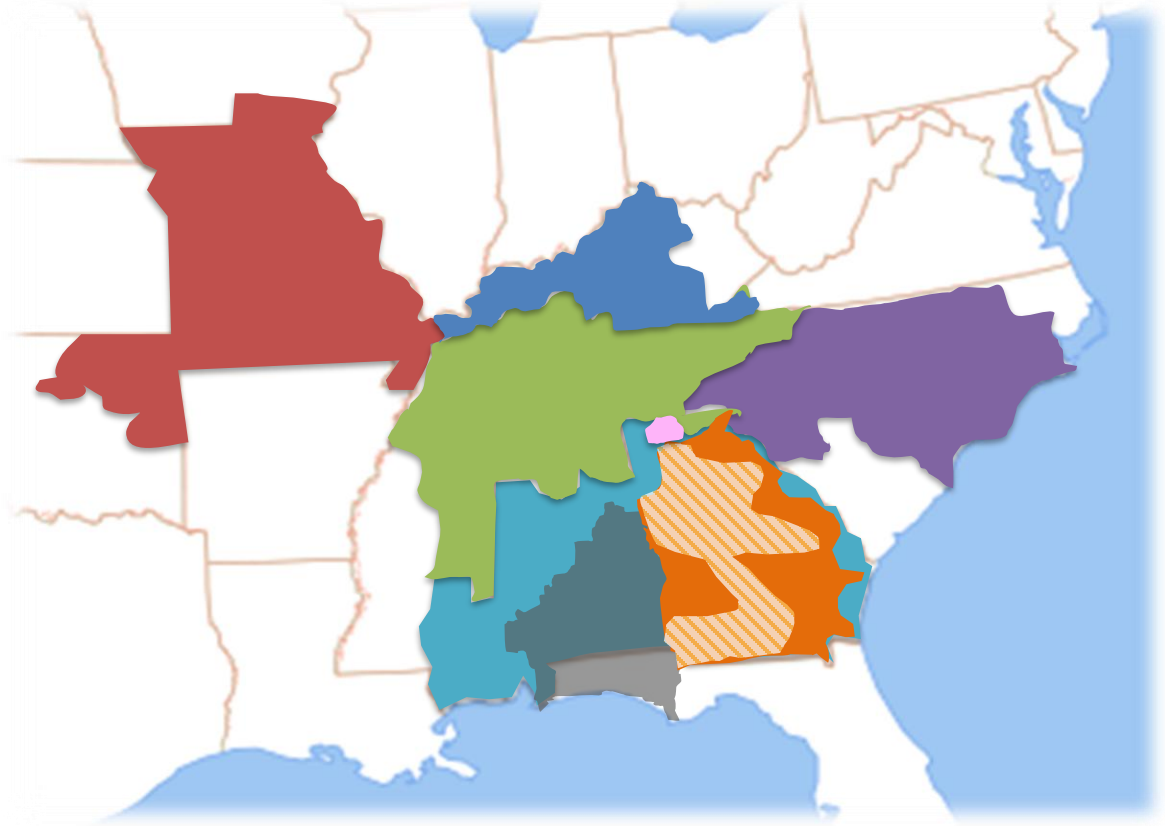
Housekeeping

- 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 a 30-minute lunch break at 12:00 noon ET.

SERTP

Regional Transmission Expansion Plan Process

Southeastern Regional Transmission Planning (SERTP)



SERTP

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

Southeastern Regional Transmission Planning (SERTP)



PRELIMINARY 10 YEAR TRANSMISSION EXPANSION PLANS :

AECI

Duke Energy Carolinas

Duke Energy Progress

LG&E/KU

SBAA

TVA

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.
- Contact Info:
  - SERTP Website Address: www.southeasternrtp.com
  - Email Inbox: southeasternrtp@southernco.com

Southeastern Regional TRANSMISSION PLANNING

2026 SERTP

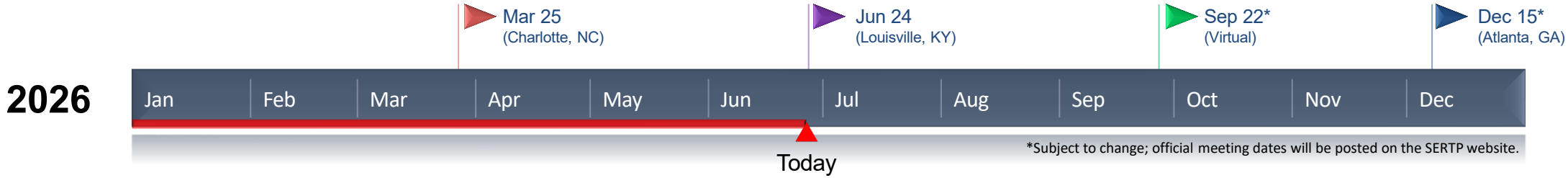
10-Year SERTP Process

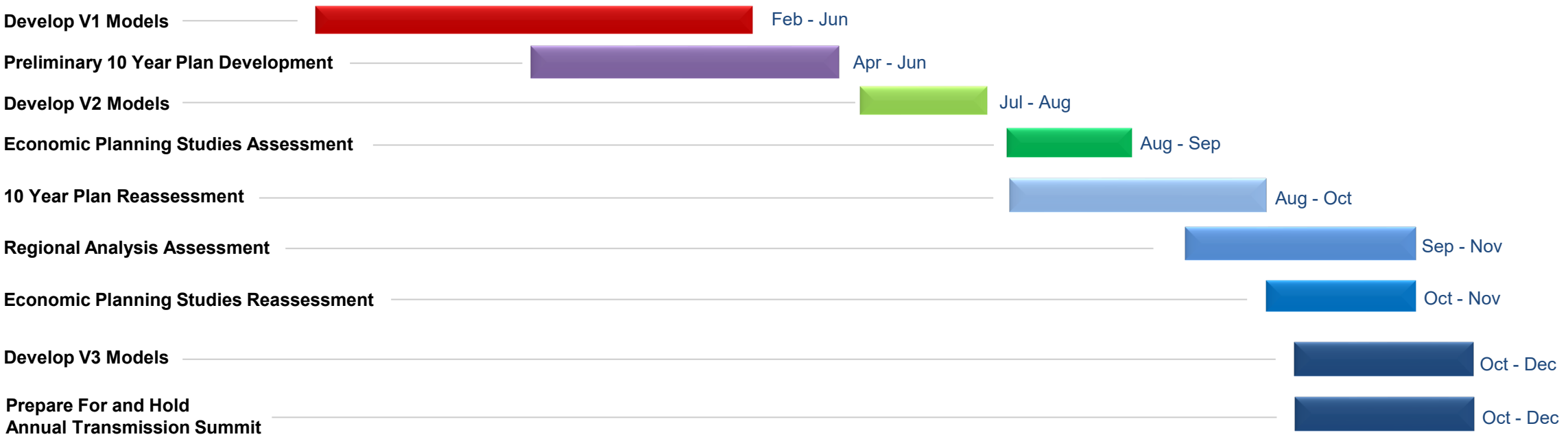
1st Quarter Meeting
("First RPSG Meeting and Interactive Training Session")
- RPSG and Interactive Training

2nd Quarter Meeting
("Preliminary Expansion Plan Meeting")
- Preliminary Expansion Plans

3rd Quarter Meeting
("Second RPSG Meeting")
- Preliminary Economic Studies

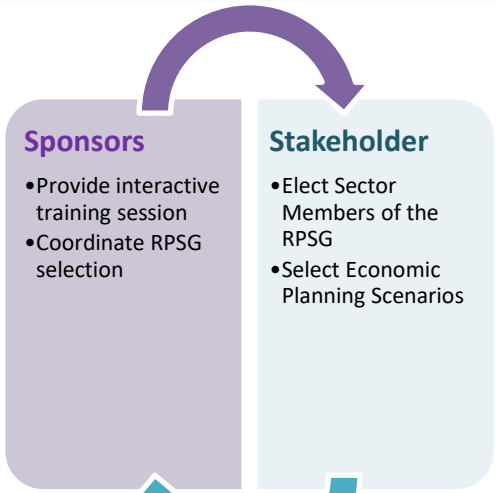
4th Quarter Meeting
("Annual Transmission Planning Summit and Assumptions Input Meeting")
- Annual Transmission Summit

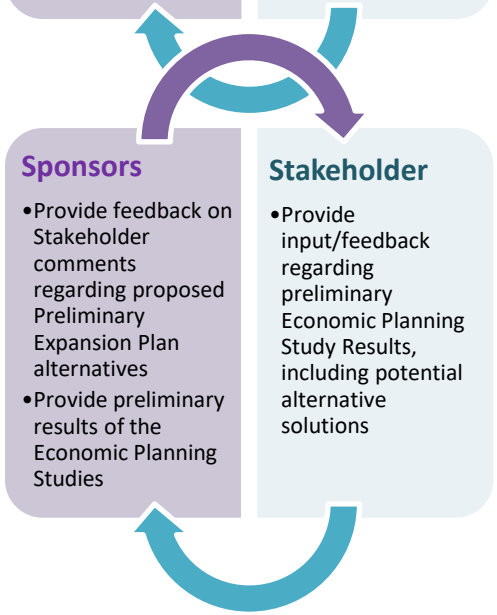


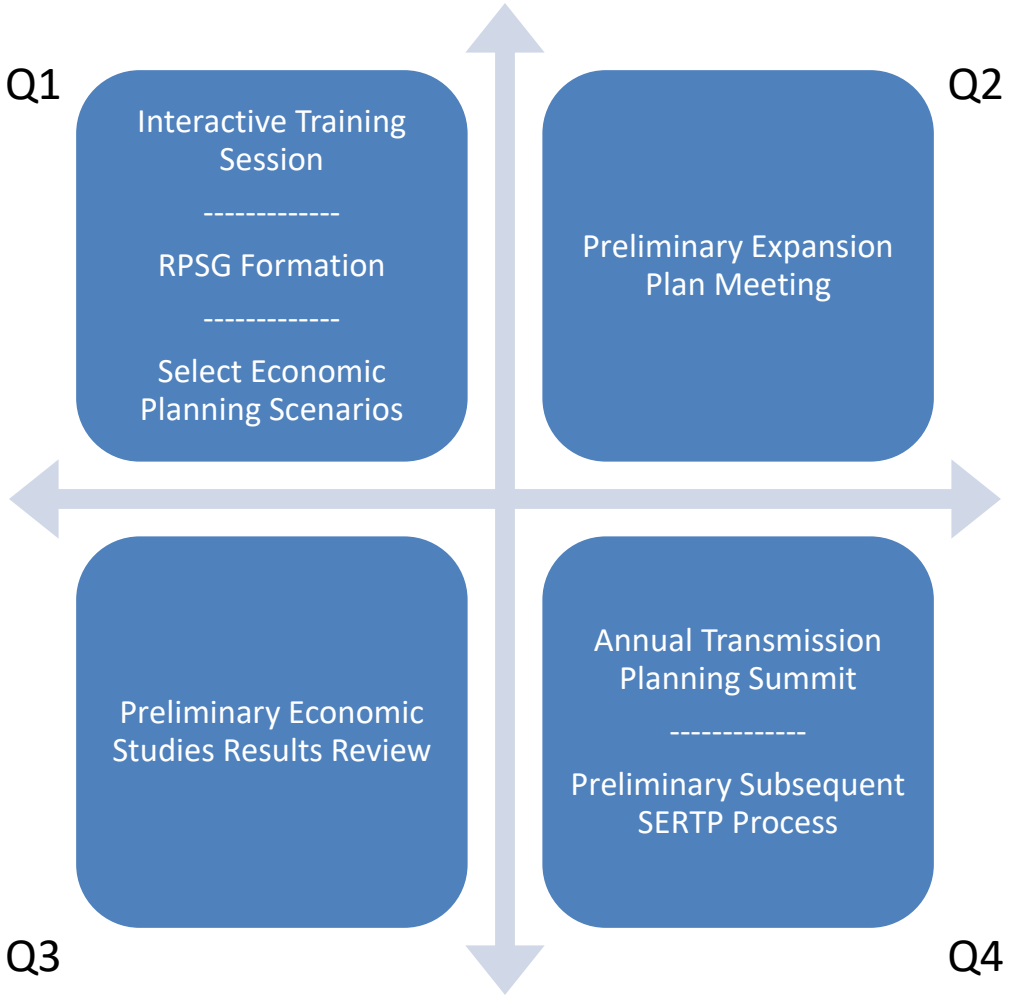


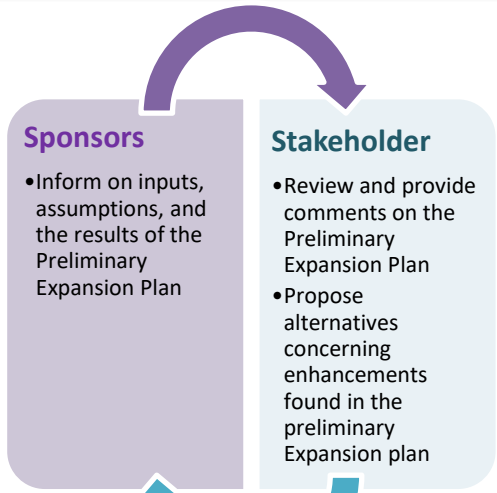
2026 SERTP

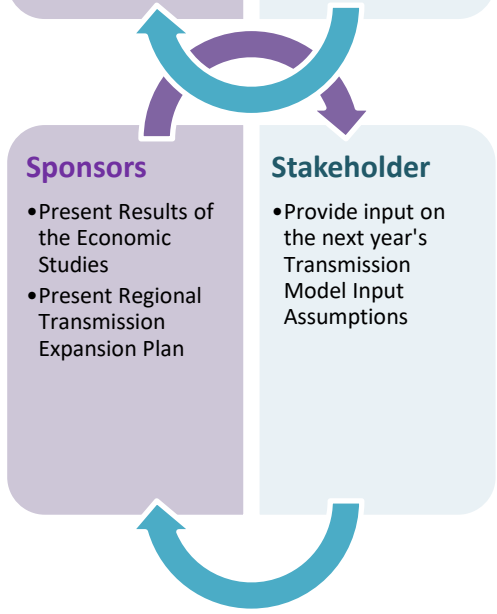
Quarterly Meeting Functions





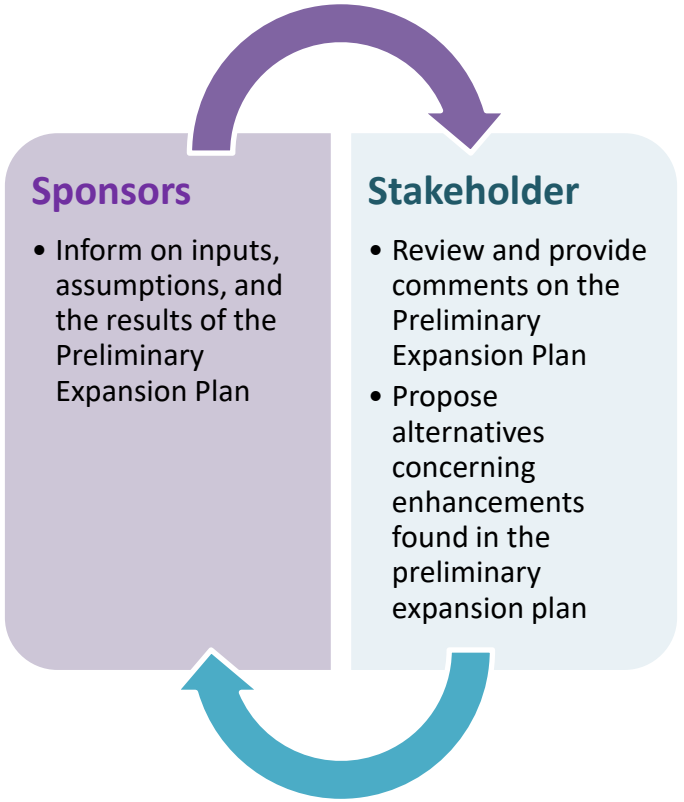






Second Quarter Meeting Functions (Q2)

Preliminary Expansion Plan Meeting

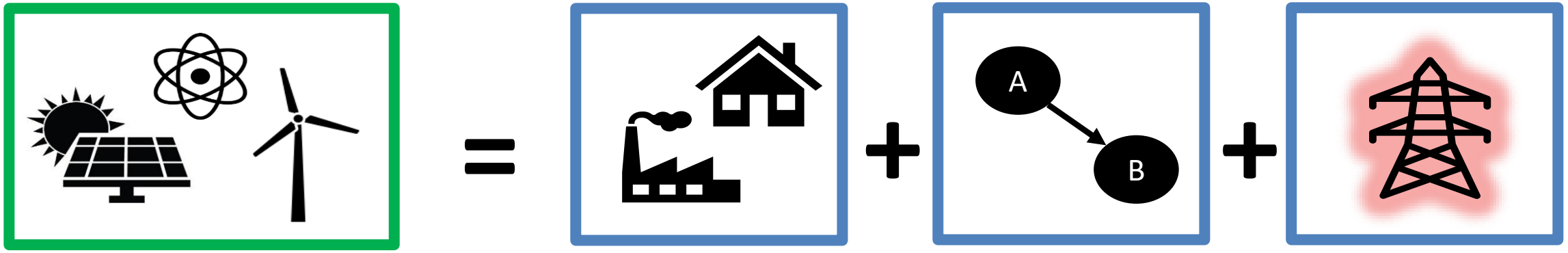


Typ. held annually in June as an in-person/hybrid meeting

SERTP

Regional Model Assumptions

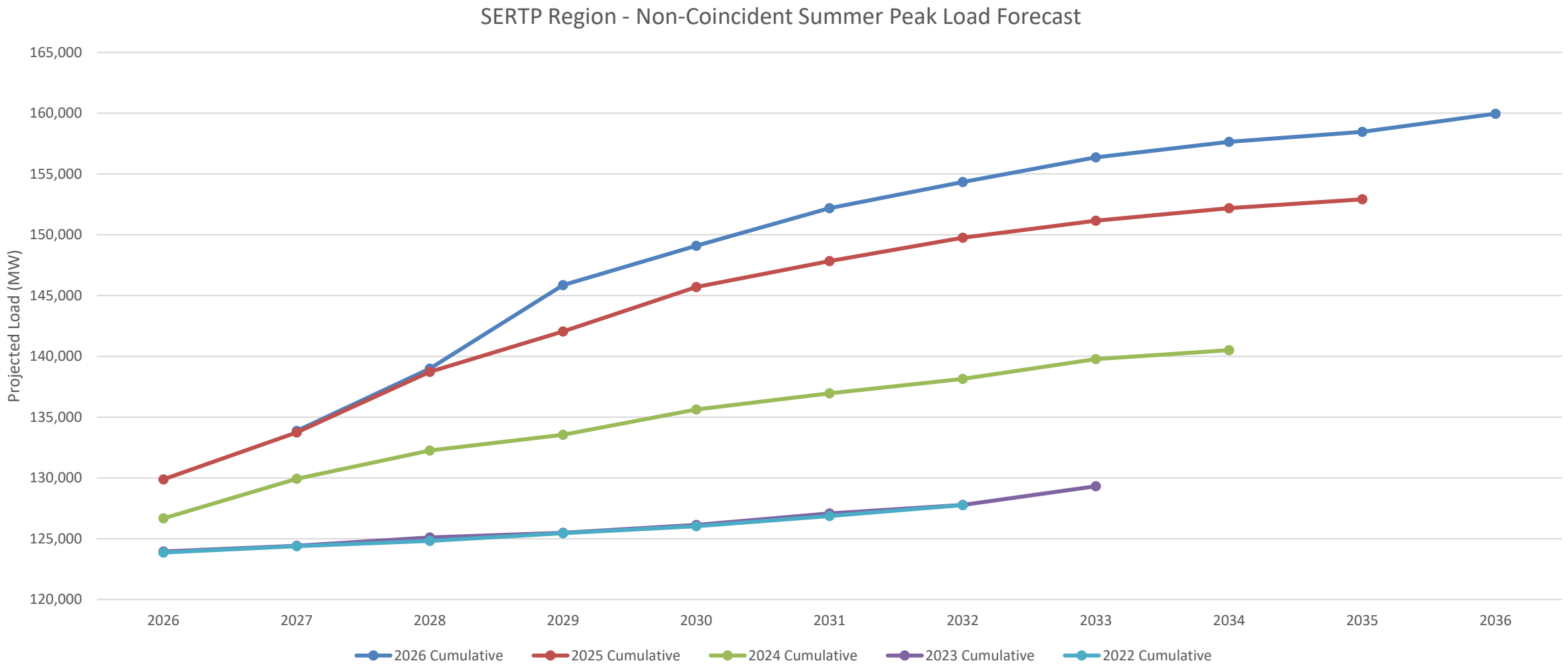
Regional Model Assumptions



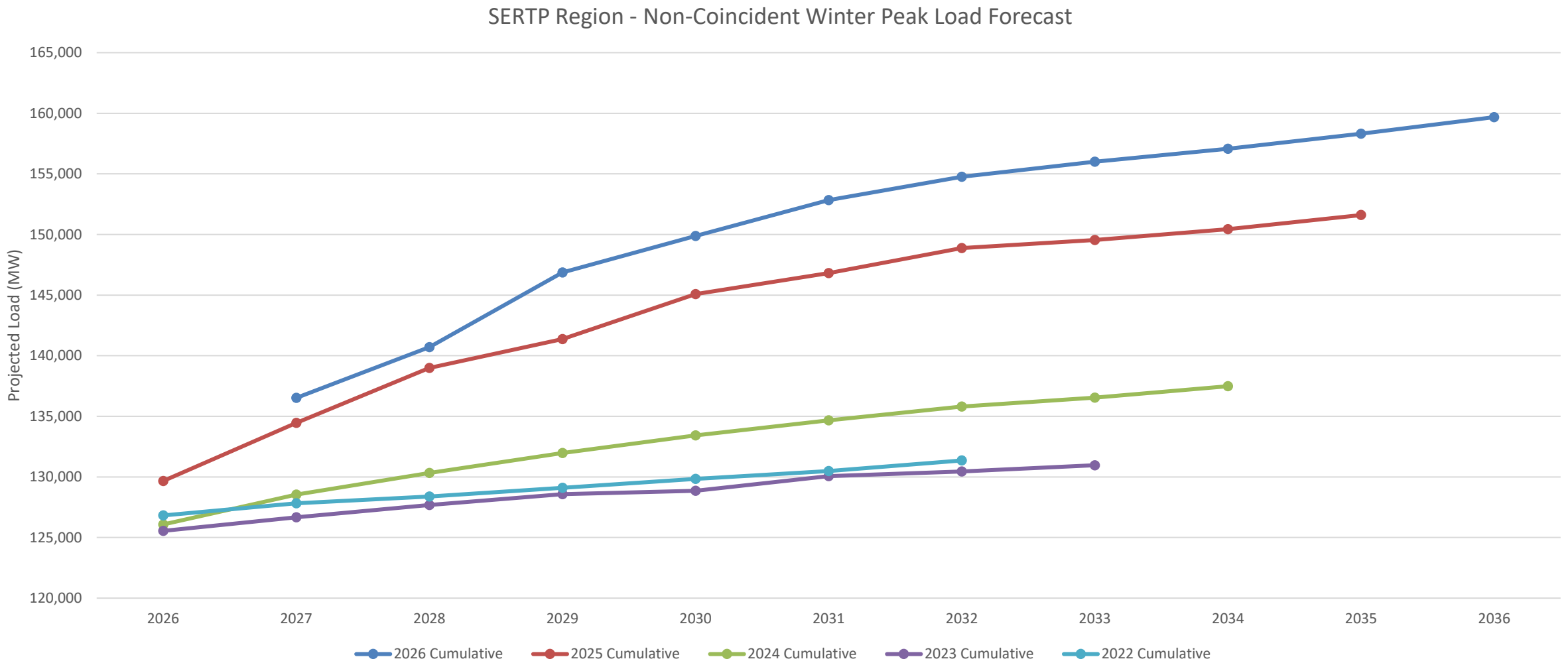
Generation = Load + Interchange + Losses

- 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 the above

SERTP Cumulative Summer Peak Load Forecast



SERTP Cumulative Winter Peak Load Forecast



TEMPLATE Balancing Authority Area

TEMPLATE – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
TBD		0	0	0	--						
NO KNOWN UPDATES AT THIS TIME											

TEMPLATE

1 Notes

SERTP

Preliminary Transmission Expansion Plans

Southeastern Regional Transmission Planning (SERTP)



PRELIMINARY 10 YEAR TRANSMISSION EXPANSION PLANS:

AECI

Duke Energy Carolinas

Duke Energy Progress

LG&E/KU

Southern Balancing Authority Area

TVA

Preliminary Transmission Expansion Plan

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.

Criteria For Projects in Presentation

- **For the full list of projects, the 2026 SERTP Preliminary Expansion Plan Report is posted on the SERTP website**
  - 2026 SERTP Preliminary Expansion Plan Report (Non-CEII)
- **Criteria for projects included in today's presentation:**
  - Tie lines: All projects, *OR*
  - 300 kV and above: All projects, *OR*
  - 161 kV – 300 kV: New BES stations and/or transmission line projects ~20 miles or longer,
  - ***AND*** has changed from the 2025 SERTP Final Expansion Plan that was presented at the SERTP 4th Quarter meeting or appeared in Appendix A.
    - NOTE: If a project has not changed from the 2025 SERTP Final Expansion Plan but meets the criteria above, it has been included in Appendix A of this presentation. Specific questions about those projects will be answered during this meeting upon request.

Regional Transmission Expansion Plan – Alternative Transmission Technology

Advanced Transmission Technology	100 kV – 200 kV	200 kV – 300 kV	300 kV – 500 kV	Total
Advance Conductor (mi.)	1,082	767	47	1,896
Static Compensator	2	2	-	4
Power Flow Control Device	-	1	-	1

AECI Balancing Authority Area

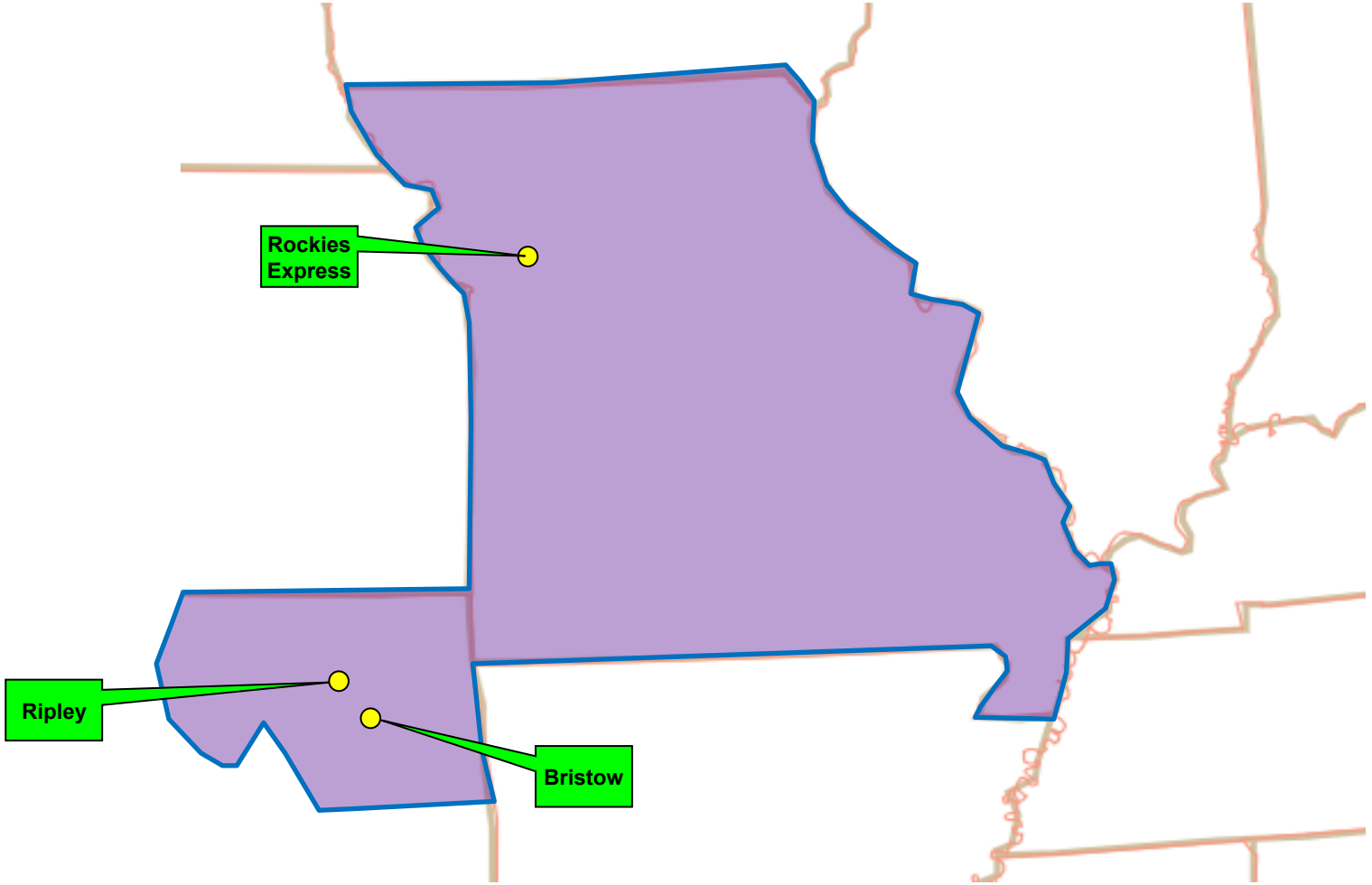
AECI Balancing Authority Area

2026 Generation Assumptions

AECI Balancing Authority Area

AECI – Generation Assumptions (Future)

The following diagram depicts the location of generation assumptions <u>that change</u> throughout the ten-year planning horizon for the 2026 SERTP Process.



Includes generation with signed interconnection agreements.

AECI Balancing Authority Area

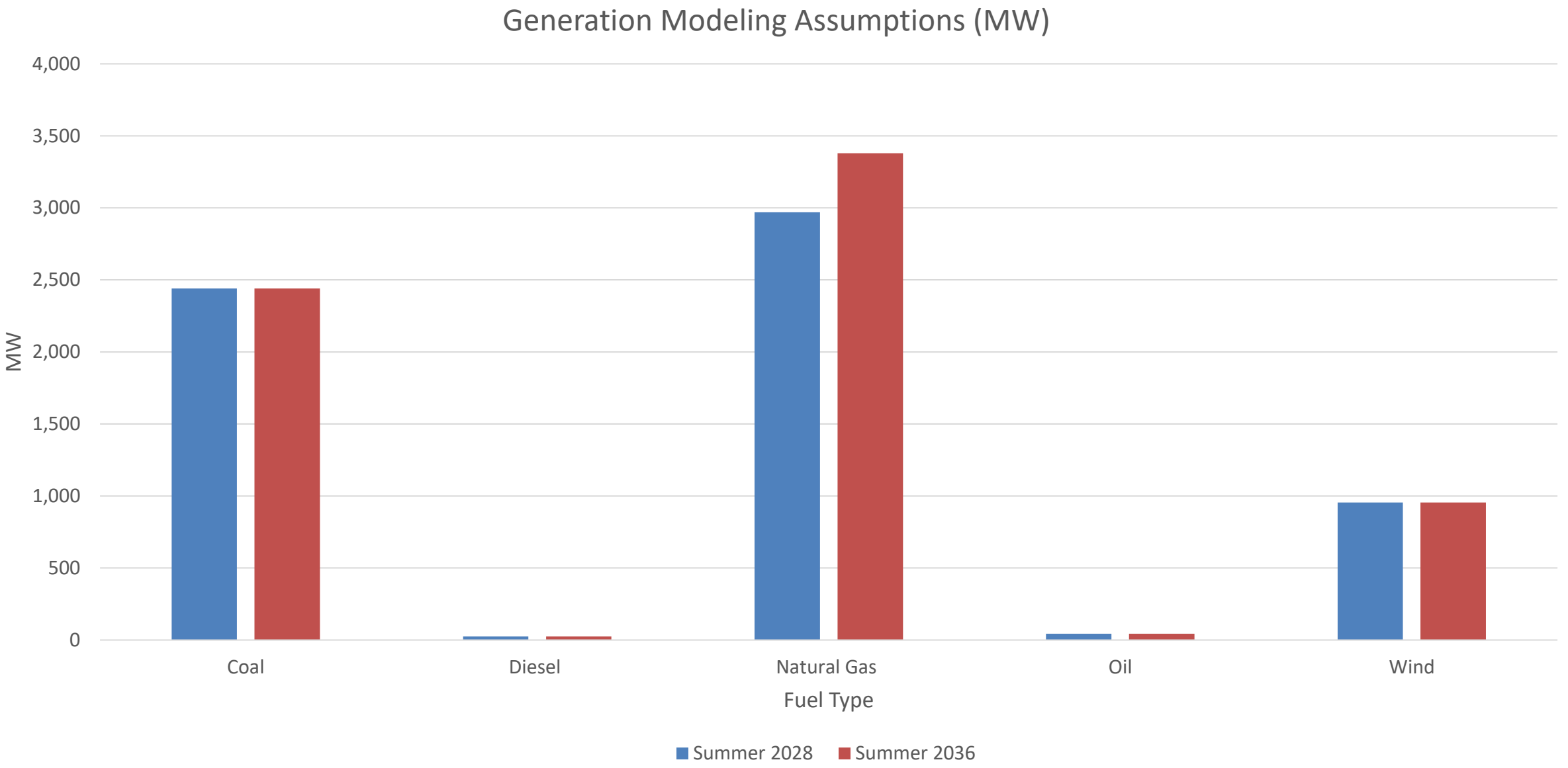
AECI – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Rockies Express 161 kV	Natural Gas	410	410	410	410	410	410	410	410	410	410
Ripley 161 kV	Natural Gas	410	410	410	410	410	410	410	410	410	410
Bristow 161 kV	Natural Gas	--	--	--	410	410	410	410	410	410	410

Southeastern Regional TRANSMISSION PLANNING

AECI Generation Summary



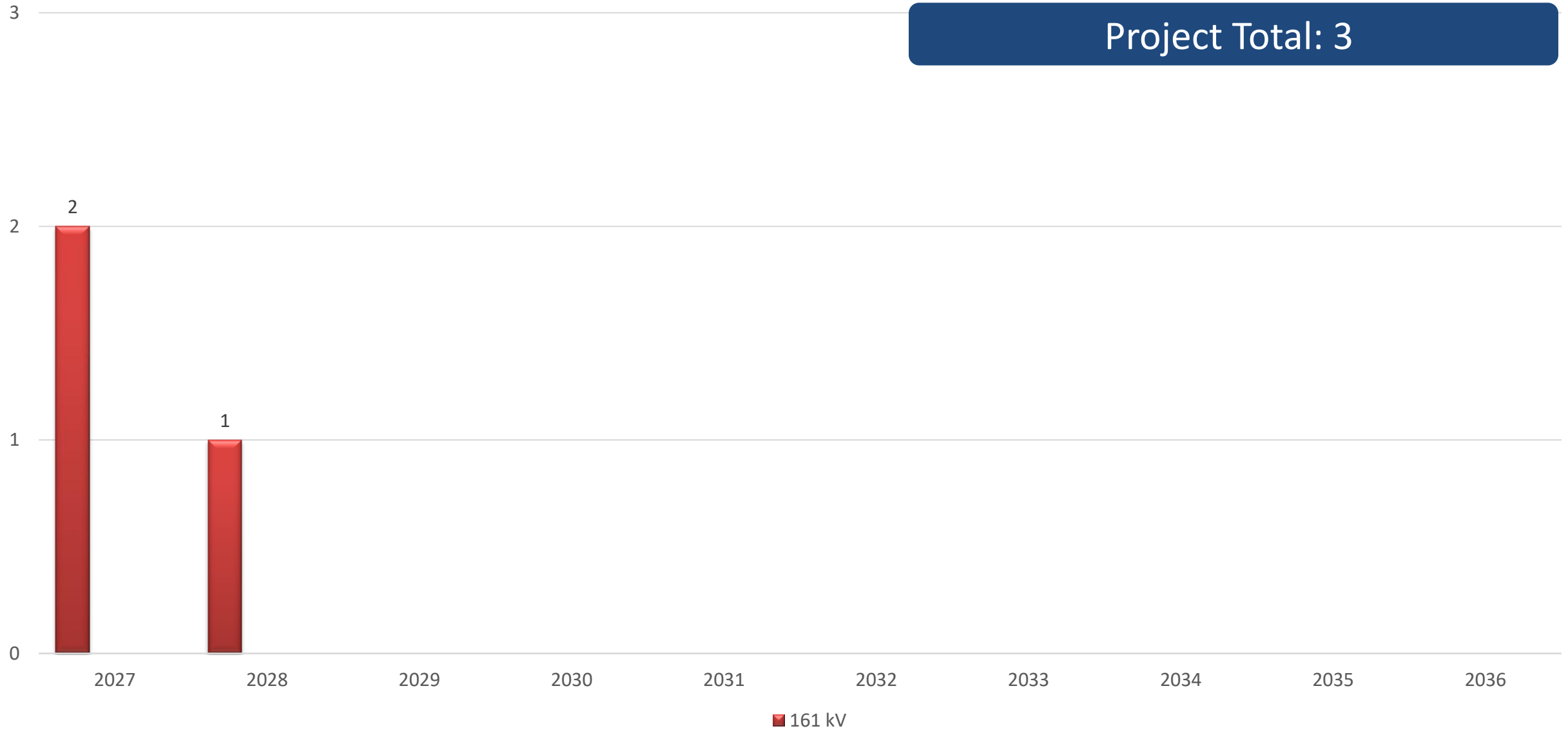
AECI Balancing Authority Area

Preliminary Transmission Expansion Plan

Southeastern Regional TRANSMISSION PLANNING

AECI Project Summary

Project Total: 3



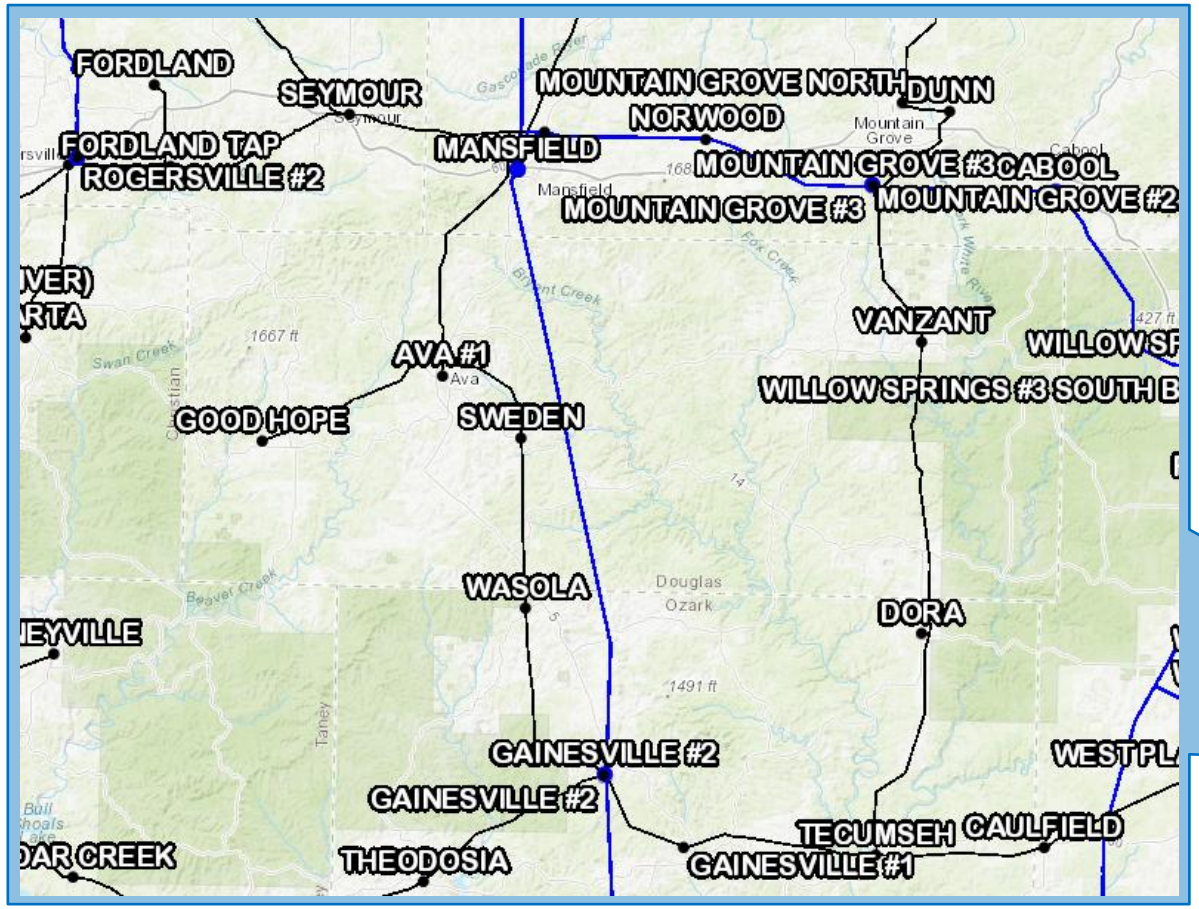
Southeastern Regional TRANSMISSION PLANNING

AECI Balancing Authority Area

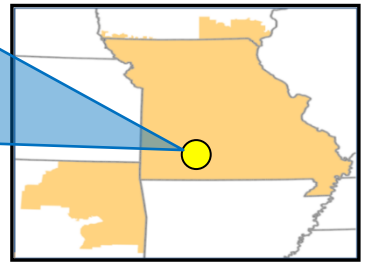
AECI

- **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 100°C.
- **SUPPORTING STATEMENT:**
  - The Mansfield – Gainesville – Bull Shoals 161 kV transmission segment overloads under contingency.



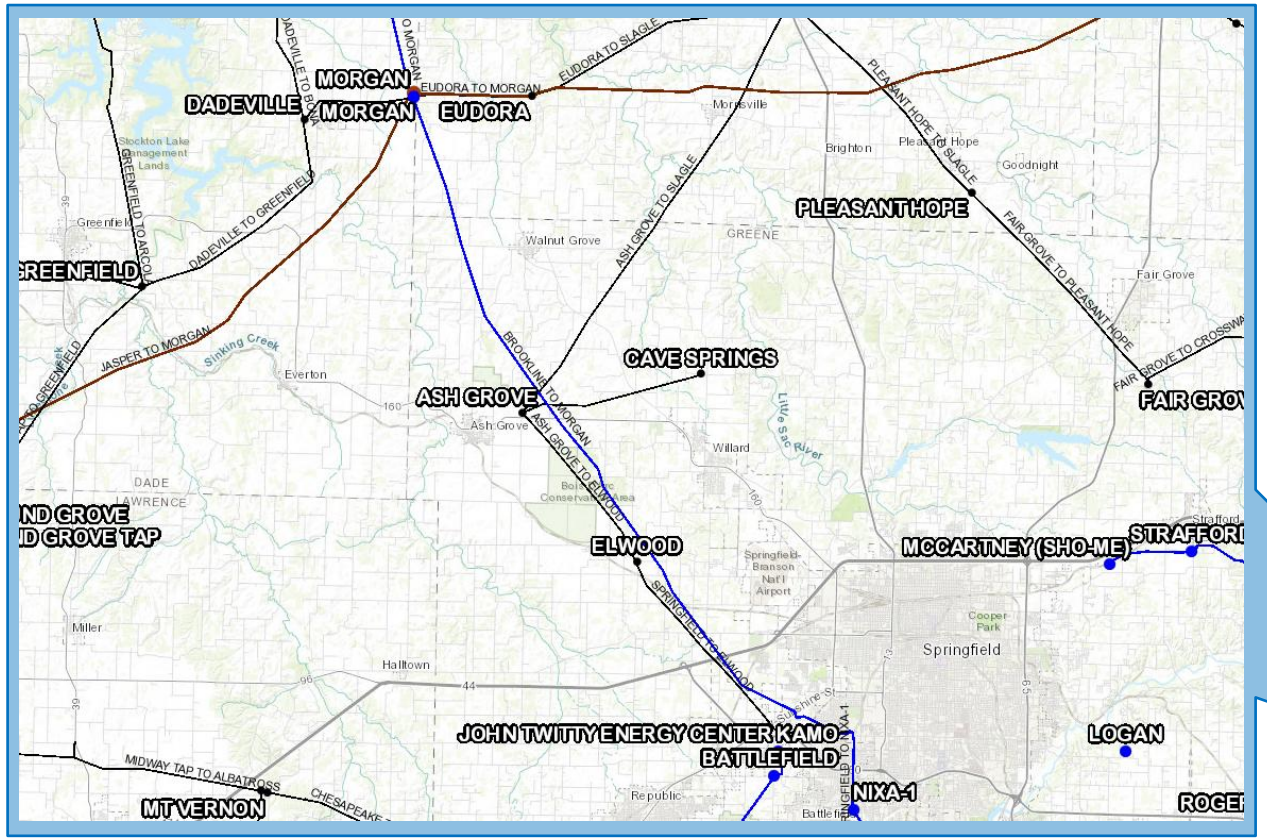
Southeastern Regional TRANSMISSION PLANNING

AECI Balancing Authority Area

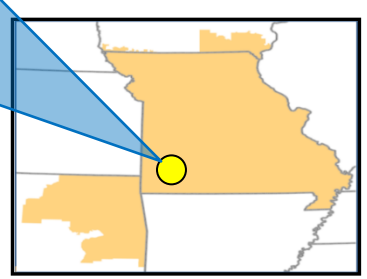
AECI

- **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.



DEC Balancing Authority Area

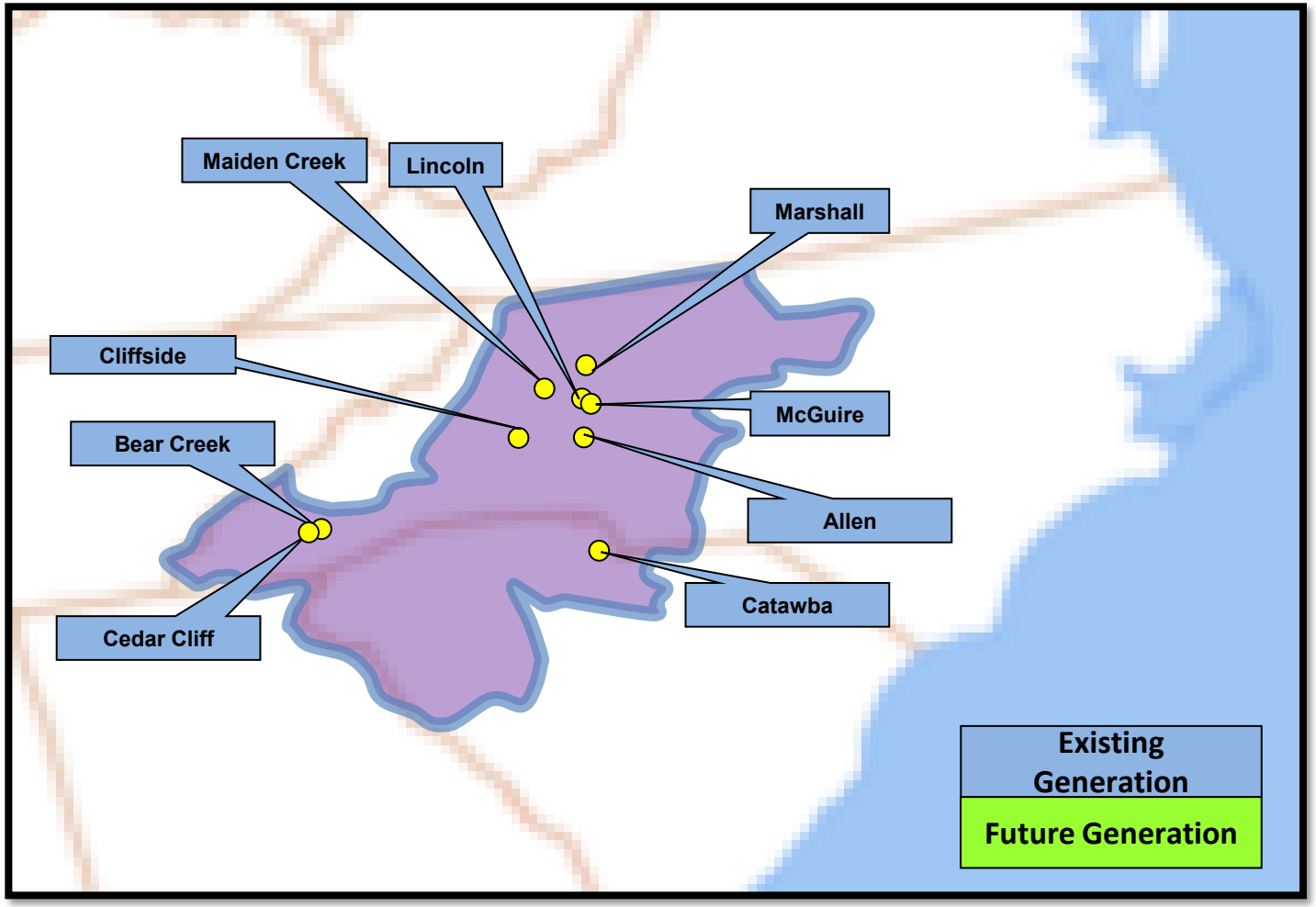
DUKE ENERGY CAROLINAS Balancing Authority Area

2026 Generation Assumptions

DEC Balancing Authority Area

DUKE ENERGY CAROLINAS – Generation Assumptions (Existing)

The following diagram depicts the location of generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process.

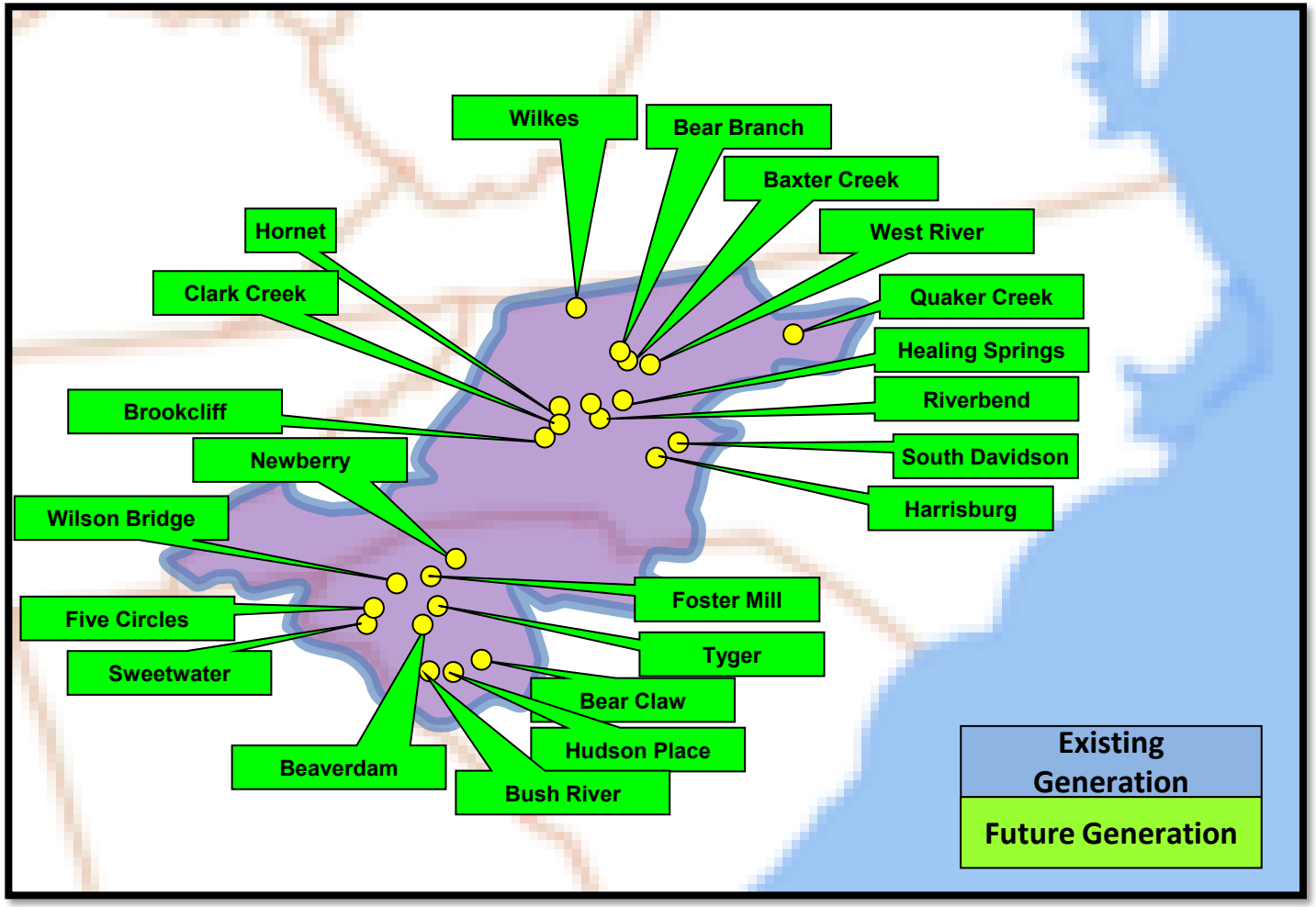


Includes generation with signed interconnection agreements. Proxy generation used where the Generation Replacement Request Process is expected to be utilized.

DEC Balancing Authority Area

DUKE ENERGY CAROLINAS – Generation Assumptions (Future)

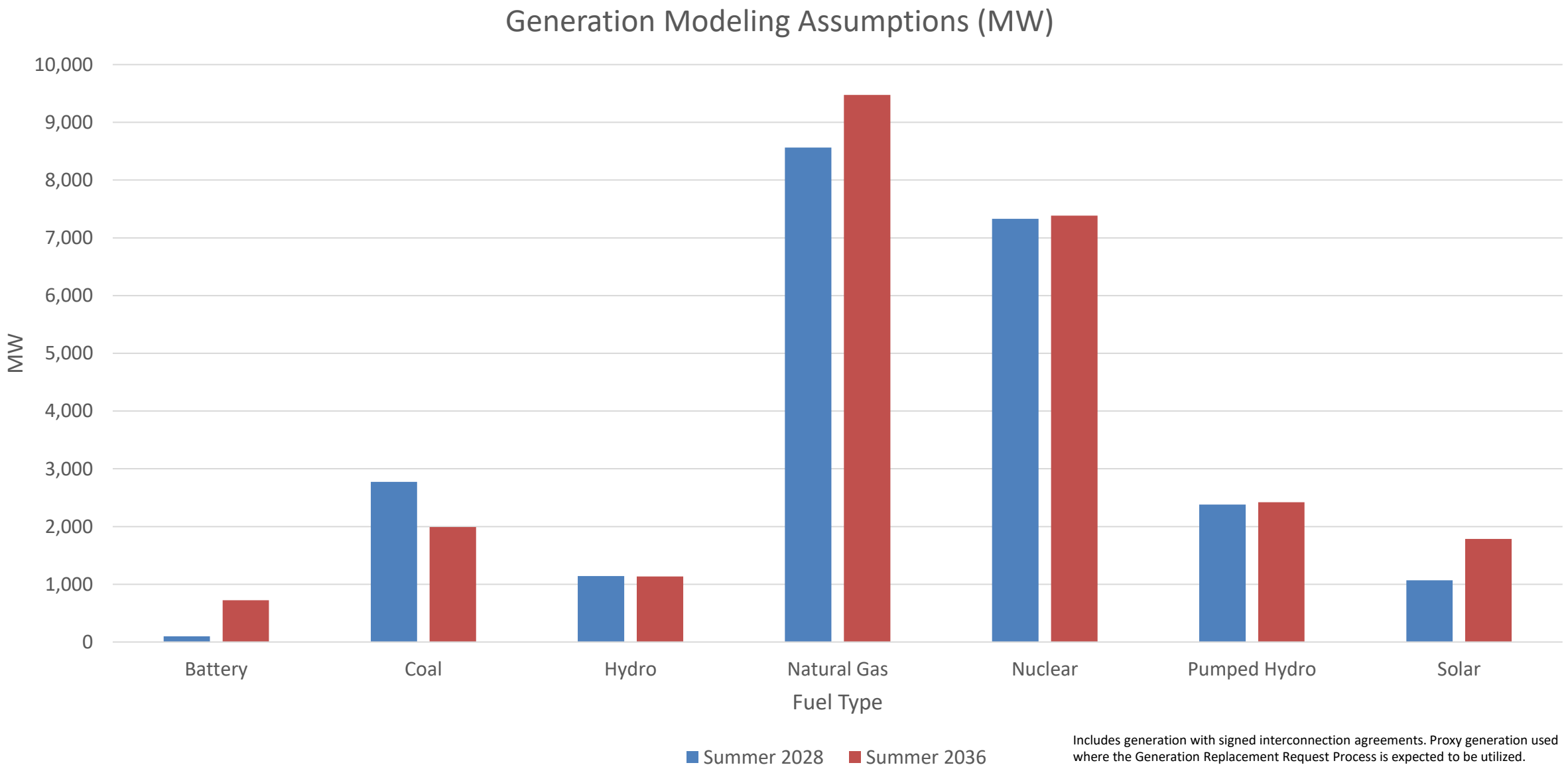
The following diagram depicts the location of generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process.



Includes generation with signed interconnection agreements. Proxy generation used where the Generation Replacement Request Process is expected to be utilized.

Southeastern Regional TRANSMISSION PLANNING

DEC Generation Summary



Includes generation with signed interconnection agreements. Proxy generation used where the Generation Replacement Request Process is expected to be utilized.

DEC Balancing Authority Area

DEC – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Cliffside 5	Coal	574	574	574	574	0	--	--	--	--	--
Cliffside 5 Proxy[1]	Proxy Generation	--	--	--	--	574	574	574	574	574	574
Marshall 1	Coal	388	388	0	--	--	--	--	--	--	--
Marshall 1 Replacement	Natural Gas	--	--	388	388	388	388	388	388	388	388
Marshall 2	Coal	392	392	0	--	--	--	--	--	--	--
Marshall 2 Replacement	Natural Gas	--	--	392	392	392	392	392	392	392	392
Marshall 3	Coal	705	705	705	705	705	0	--	--	--	--
Marshall 3 Proxy[1]	Proxy Generation	--	--	--	--	--	705	705	705	705	705
Marshall 4	Coal	711	711	711	711	711	0	--	--	--	--
Marshall 4 Proxy[1]	Proxy Generation	--	--	--	--	--	711	711	711	711	711
Bear Creek Hydro	Hydro Uprate	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Cedar Cliff Hydro	Hydro Uprate	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
McGuire 1	Nuclear Uprate	--	--	--	18	18	18	18	18	18	18
McGuire 2	Nuclear Uprate	--	--	--	--	25	25	25	25	25	25
Catawba 1	Nuclear Uprate	--	--	--	--	12	12	12	12	12	12

1. Generators left in model in expectation of replacement generation through the Generation Replacement Request process.
2. Replacement for retired Allen unit 1 Coal Fired Unit

Includes generation with signed interconnection agreements.

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 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Allen 2 BESS (GRR)[2]	Storage	--	167	167	167	167	167	167	167	167	167
Riverbend BESS	Storage	--	115	115	115	115	115	115	115	115	115
Wilkes	Storage	--	120	120	120	120	120	120	120	120	120
Harrisburg BESS	Storage	--	--	197	197	197	197	197	197	197	197
Cliffside 2	Storage	--	--	199.9	199.9	199.9	199.9	199.9	199.9	199.9	199.9
Allen 3	Storage	--	--	199	199	199	199	199	199	199	199
Tyger	Solar + Storage	--	74.99 / 28	74.99 / 28	74.99 / 28	74.99 / 28	74.99 / 28	74.99 / 28	74.99 / 28	74.99 / 28	74.99 / 28
Clark Creek	Solar + Storage	--	40 / 14	40 / 14	40 / 14	40 / 14	40 / 14	40 / 14	40 / 14	40 / 14	40 / 14
Maiden Creek	Surplus Storage	50	50	50	50	50	50	50	50	50	50
Bear Branch	Solar	34.5	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	42
Hornet	Solar	73	73	73	73	73	73	73	73	73	73
Baxter Creek	Solar	30	30	30	30	30	30	30	30	30	30
Healing Springs	Solar	55	55	55	55	55	55	55	55	55	55
Sweetwater	Solar	34	34	34	34	34	34	34	34	34	34
West River	Solar	40	40	40	40	40	40	40	40	40	40

2. Replacement for retired Allen unit 1 Coal Fired Unit

Includes generation with signed interconnection agreements.

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 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Quaker Creek	Solar	--	35	35	35	35	35	35	35	35	35
Bear Claw	Solar	--	28.25	28.25	28.25	28.25	28.25	28.25	28.25	28.25	28.25
Bush River	Solar	--	45	45	45	45	45	45	45	45	45
Hudson Place	Solar	--	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7	70.7
Newberry	Solar	--	--	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
Brookcliff	Solar	--	--	50	50	50	50	50	50	50	50
Five Circles	Solar	--	--	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9
Wilson Bridge	Solar	--	--	72	72	72	72	72	72	72	72
Foster Mill	Solar	--	--	54	54	54	54	54	54	54	54

Includes generation with signed interconnection agreements.

DEC Balancing Authority Area

DEC – Generation Assumptions (Point-to-Point)

The following table depicts generation assumptions based upon expected long-term firm point-to-point commitments for the SERTP 2026 Planning Process. The years shown represent Summer Peak conditions.

SITE	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Cleveland	196	196	196	196	196	196	196	196	196	196
Broad River	925	925	925	925	925	925	925	925	925	925
Catawba	557	557	457	457	457	457	457	457	457	457
Rowan	373	376	370	180	180	180	180	180	180	180
Kings Mountain	92	92	92	92	92	92	92	92	92	92
Cherokee	98	98	98	98	98	98	98	98	98	98

DEC Balancing Authority Area

DUKE ENERGY CAROLINAS Balancing Authority Area

Preliminary Transmission Expansion Plan

* DEC has no projects that meet the presentation criteria in the 2026 SERTP Process.

Southeastern Regional TRANSMISSION PLANNING

DEC Balancing Authority Area

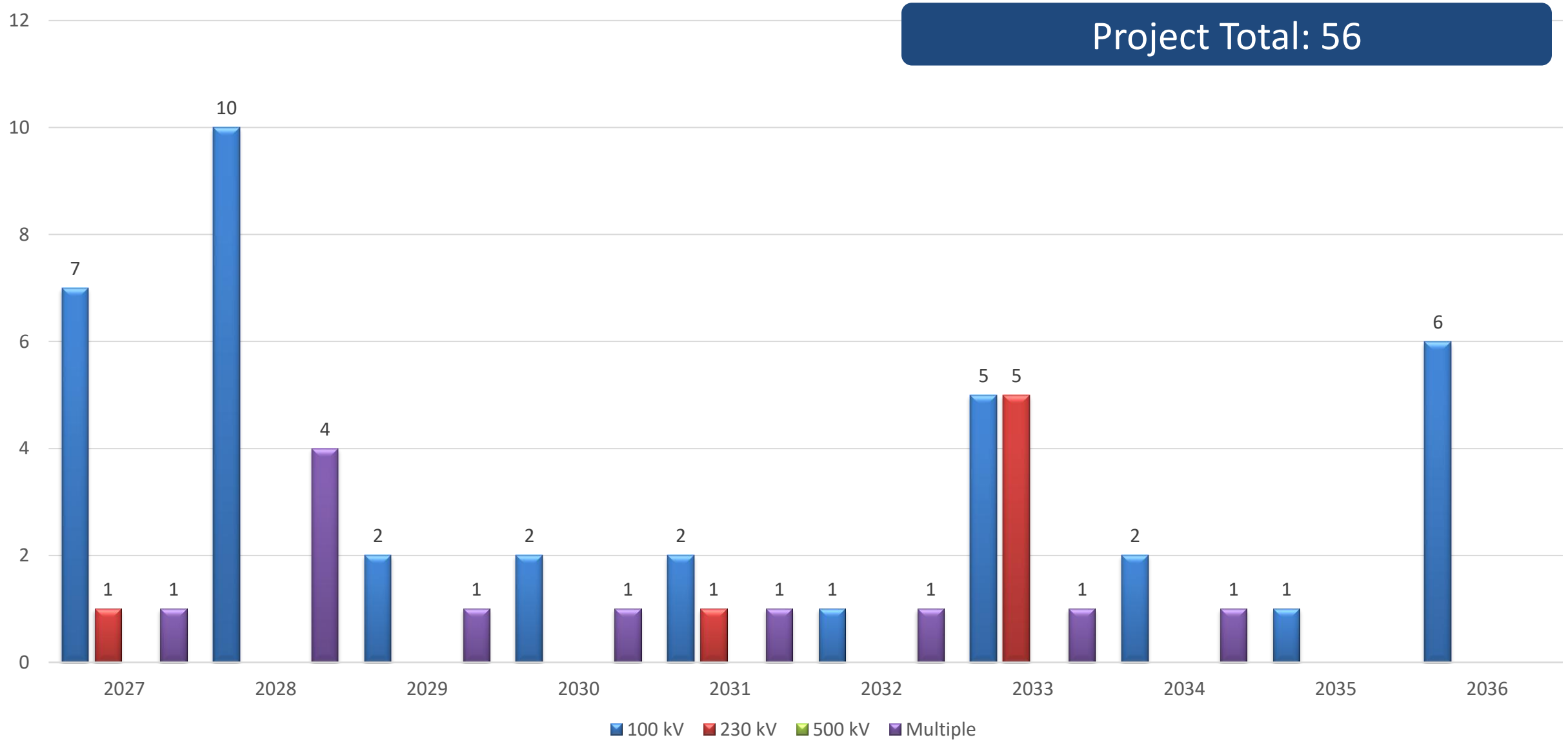
DEC Projects and descriptions in the SERTP Preliminary Report and presented here are based on the 2025 CTPC Collaborative Transmission Plan Report published on the CTPC Website published in April 2026 (linked below).

2025 CTPC Collaborative Transmission Plan Report 04-16-2026

Southeastern Regional TRANSMISSION PLANNING

DEC Project Summary

Project Total: 56



Southeastern Regional TRANSMISSION PLANNING

DEP Balancing Authority Areas

DUKE ENERGY PROGRESS

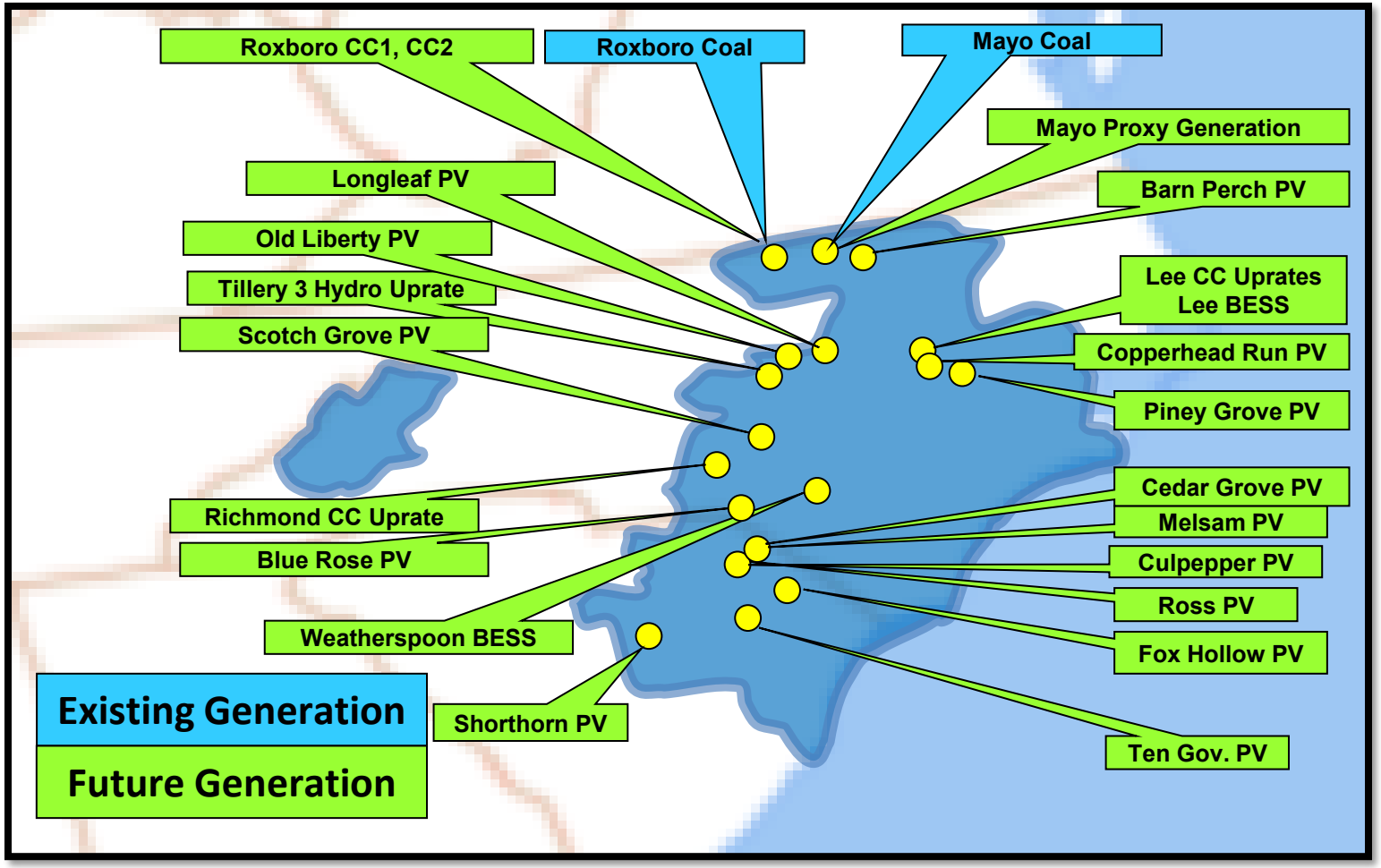
Balancing Authority Areas

2026 Generation Assumptions

DEP EAST/WEST Balancing Authority Areas

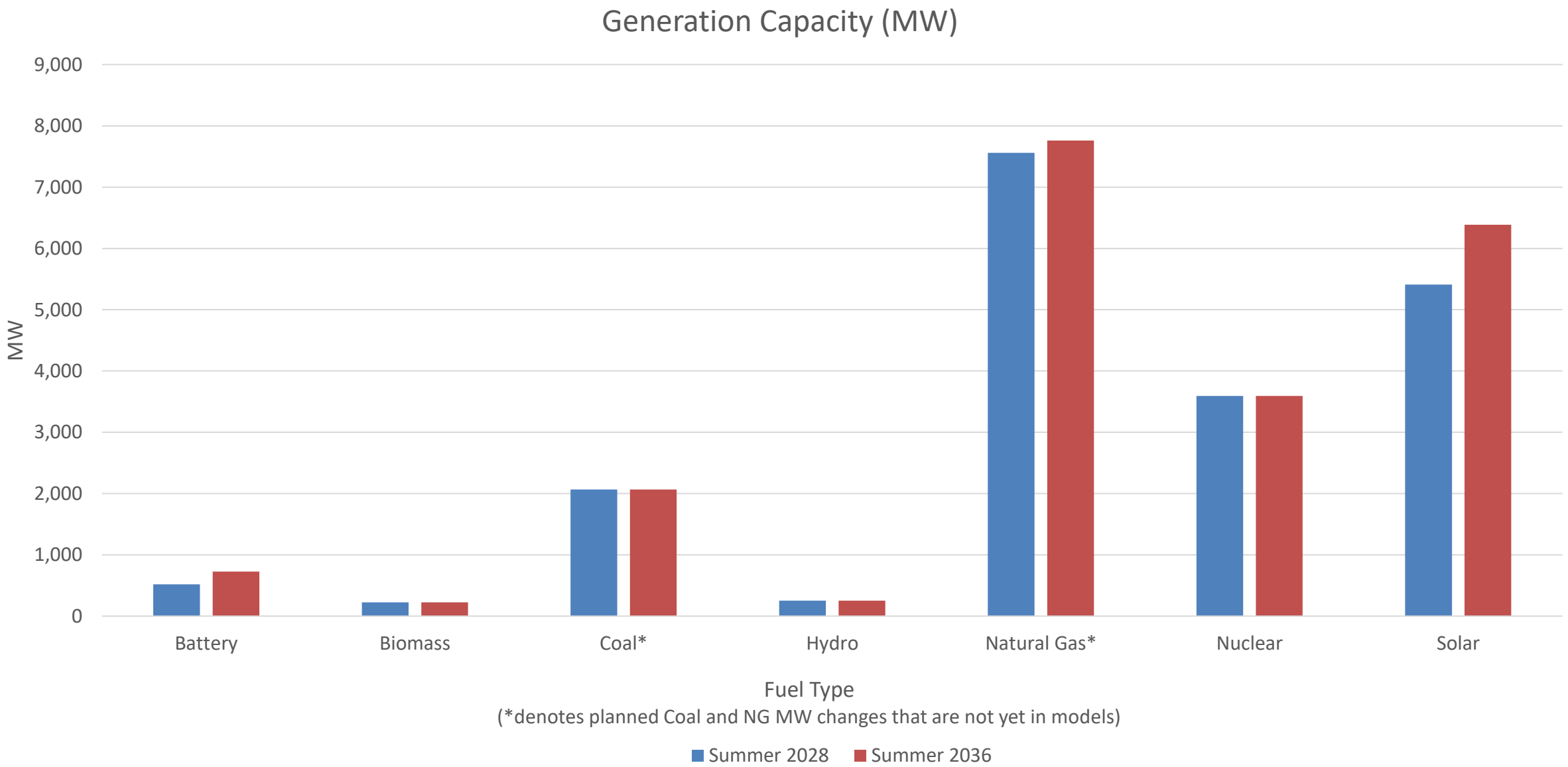
DUKE ENERGY PROGRESS – Generation Assumptions

The following diagram depicts the location of generation assumptions <u>that change</u> throughout the ten-year planning horizon for the 2026 SERTP Process.



Southeastern Regional TRANSMISSION PLANNING

DEP Generation Summary



DEP Balancing Authority Areas

DEP – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
ROXBORO #1 COAL	Coal	379	0	--	--	--	--	--	--	--	--
ROXBORO #4 COAL	Coal	698	0	--	--	--	--	--	--	--	--
ROXBORO #2 COAL[1]	Coal	668	668	668	668	668	668	668	0	--	--
ROXBORO #3 COAL[1]	Coal	694	694	694	694	694	694	694	0	--	--
MAYO COAL[1]	Coal	704	704	704	704	0	--	--	--	--	--
ROXBORO CC1 (REPLACEMENT)	Natural Gas	--	1047	1047	1047	1047	1047	1047	1047	1047	1047
ROXBORO CC1 (INCREMENTAL)	Natural Gas	--	307	307	307	307	307	307	307	307	307
ROXBORO CC2 (FUTURE)[2]	Natural Gas	--	--	--	1312	1312	1312	1312	1312	1312	1312
MAYO (FUTURE)[3]	TBD	--	--	--	--	704	704	704	704	704	704

1. Generators left in models in expectation of replacement generation through the Generation Replacement Request (GRR) or DISIS processes.
2. Additional planned generation through the large generator interconnection process, not yet in power flow models.
3. Approximate beginning-of-year time frame for Mayo retirement pending equally reliable replacement resources exist to allow retirements, not yet in power flow models

DEP Balancing Authority Areas

DEP – Generation Assumptions Continued

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
TILLERY 3 UPRATE	Hydro	6.26	6.26	6.26	6.26	6.26	6.26	6.26	6.26	6.26	6.26
HF LEE CC 115 UPRATE	Natural Gas	52	52	52	52	52	52	52	52	52	52
HF LEE CC 230 UPRATE	Natural Gas	74	74	74	74	74	74	74	74	74	74
SMITH CC UPRATE	Natural Gas	46.75	46.75	46.75	46.75	46.75	46.75	46.75	46.75	46.75	46.75

Includes generation with signed interconnection agreements.

DEP – Generation Assumptions Continued

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Dist. BESS	Storage	3.55	3.55	3.55	3.55	3.55	3.55	3.55	3.55	3.55	3.55
Lee BESS	Storage	--	260	260	260	260	260	260	260	260	260
Cedar Grove SPS	Solar + Storage	--	70 / 28	70 / 28	70 / 28	70 / 28	70 / 28	70 / 28	70 / 28	70 / 28	70 / 28
Scotch Grove SPS	Solar + Storage	--	80 / 32	80 / 32	80 / 32	80 / 32	80 / 32	80 / 32	80 / 32	80 / 32	80 / 32
Old Liberty SPS	Solar + Storage	--	44 / 17	44 / 17	44 / 17	44 / 17	44 / 17	44 / 17	44 / 17	44 / 17	44 / 17
Fox Hollow SPS	Solar + Storage	--	63.9 / 24.1	63.9 / 24.1	63.9 / 24.1	63.9 / 24.1	63.9 / 24.1	63.9 / 24.1	63.9 / 24.1	63.9 / 24.1	63.9 / 24.1
Ten Governors SPS	Solar + Storage	--	65 / 35	65 / 35	65 / 35	65 / 35	65 / 35	65 / 35	65 / 35	65 / 35	65 / 35
Melsam SPS	Solar + Storage	--	65 / 25	65 / 25	65 / 25	65 / 25	65 / 25	65 / 25	65 / 25	65 / 25	65 / 25
Barn Perch PV	Solar	--	80	80	80	80	80	80	80	80	80
Blue Rose PV	Solar	--	275	275	275	275	275	275	275	275	275
Longleaf SPS	Solar + Storage	--	100 / 35	100 / 35	100 / 35	100 / 35	100 / 35	100 / 35	100 / 35	100 / 35	100 / 35
Culpepper PV	Solar	--	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9
Ross PV	Solar	--	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9
Shorthorn PV	Solar	--	--	60	60	60	60	60	60	60	60
Piney Grove SPS	Solar + Storage	--	--	67 / 25	67 / 25	67 / 25	67 / 25	67 / 25	67 / 25	67 / 25	67 / 25
Copperhead Run PV	Solar	--	--	80	80	80	80	80	80	80	80
Weatherspoon BESS	Storage	--	--	199.9	199.9	199.9	199.9	199.9	199.9	199.9	199.9

Includes generation with signed interconnection agreements.

DEP Balancing Authority Areas

DEP– Generation Assumptions (Point-to-Point)

The following table depicts generation assumptions based upon expected long-term firm point-to-point commitments for the SERTP 2026 Planning Process. The years shown represent Summer Peak conditions.

SITE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
HAMLET #2 AND #3	110	110	110	110	110	110	110	110	110	110
HAMLET #6	55	55	55	55	55	55	55	55	55	55

DEP Balancing Authority Areas

DUKE ENERGY PROGRESS Balancing Authority Areas

Preliminary Transmission Expansion Plans

Southeastern Regional TRANSMISSION PLANNING

DEP Balancing Authority Area

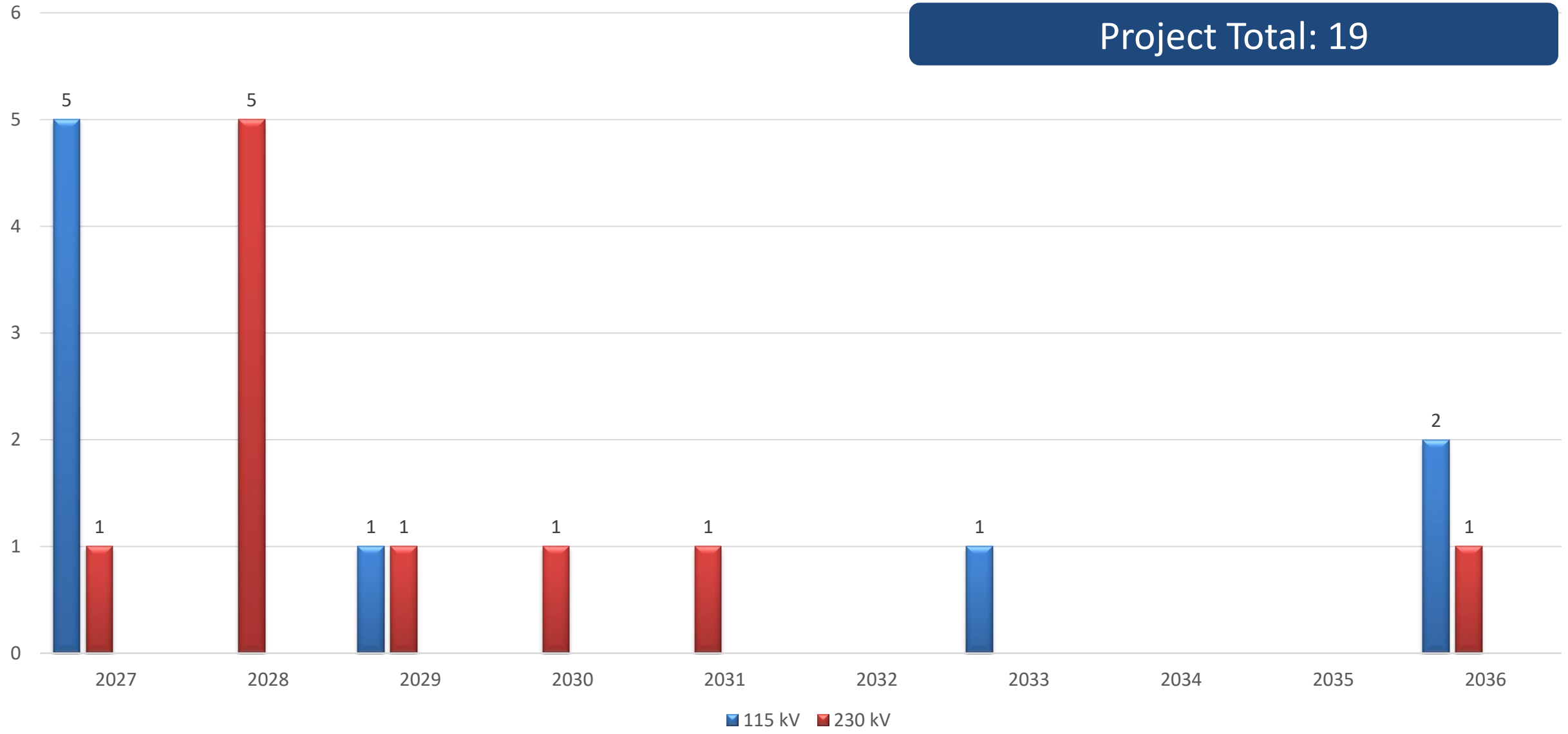
DEP Projects and descriptions in the SERTP Preliminary Report and presented here are based on the 2025 CTPC Collaborative Transmission Plan Report published on the CTPC Website published in April 2026 (linked below).

2025 CTPC Collaborative Transmission Plan Report 04-16-2026

Southeastern Regional TRANSMISSION PLANNING

DEP Project Summary

Project Total: 19



Southeastern Regional TRANSMISSION PLANNING

DEP Balancing Authority Areas

DUKE ENERGY PROGRESS EAST

Balancing Authority Area

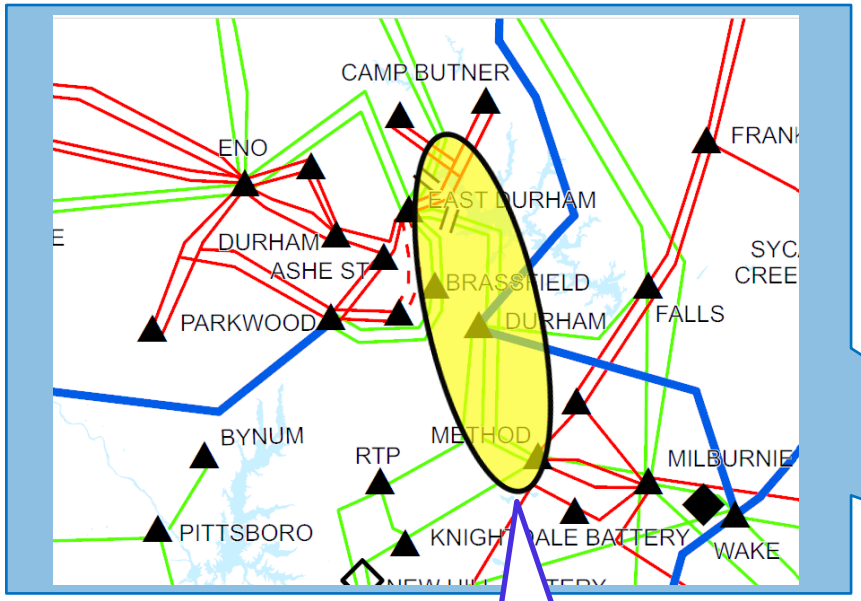
Preliminary Transmission Expansion Plan

DEP Balancing Authority Areas

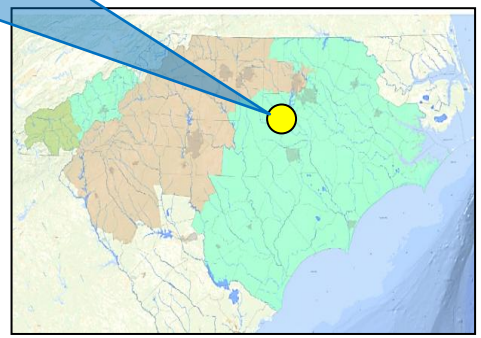
DUKE ENERGY PROGRESS EAST

• **2028**

METHOD-DPC EAST DURHAM 230 KV LINE, UPGRADE EQUIPMENT



- **DESCRIPTION:**
  - Upgrade line switches and terminal equipment at both ends of the Method – DPC East Durham 230 kV line to allow the full cold winter line conductor rating.
- **SUPPORTING STATEMENT:**
  - Various outages overload the Method – DPC East Durham 230 kV line.

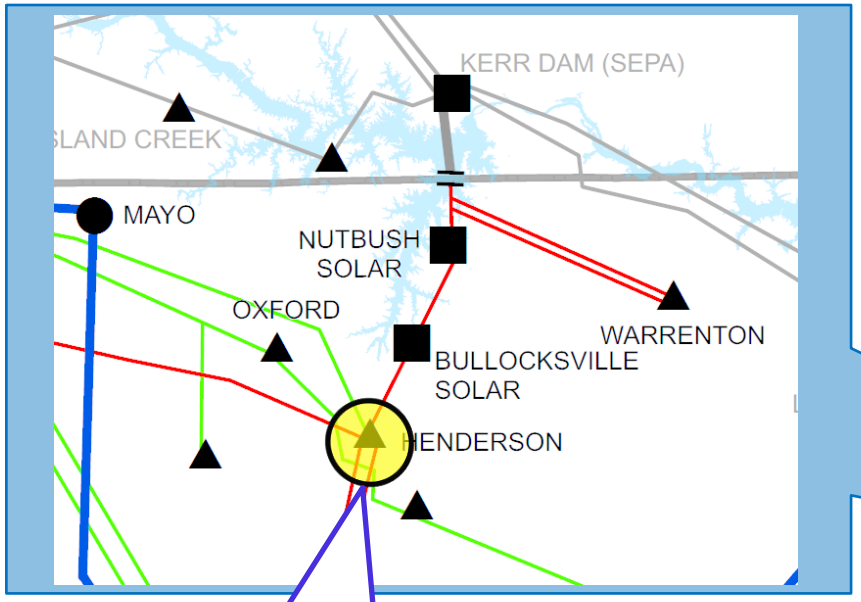


DEP Balancing Authority Areas

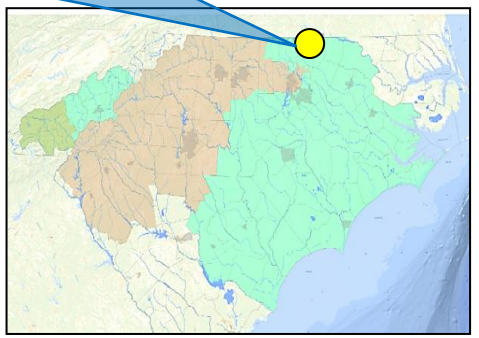
DUKE ENERGY PROGRESS EAST

• **2029**

HENDERSON – DVP KERR DAM 115 KV LINE, UPGRADE EQUIPMENT



- **DESCRIPTION:**
  - Upgrade terminal equipment at the Henderson 230 kV Sub on the Henderson-DVP Kerr Dam 115 kV line.
- **SUPPORTING STATEMENT:**
  - The Henderson – DVP Kerr Dam 115 kV line overloads for various contingencies.



Southeastern Regional TRANSMISSION PLANNING

DEP Balancing Authority Areas

DUKE ENERGY PROGRESS WEST

Balancing Authority Area

Preliminary Transmission Expansion Plan

* DEP West has no projects that meet the presentation criteria in the 2026 SERTP Process.

LG&E/KU Balancing Authority Area

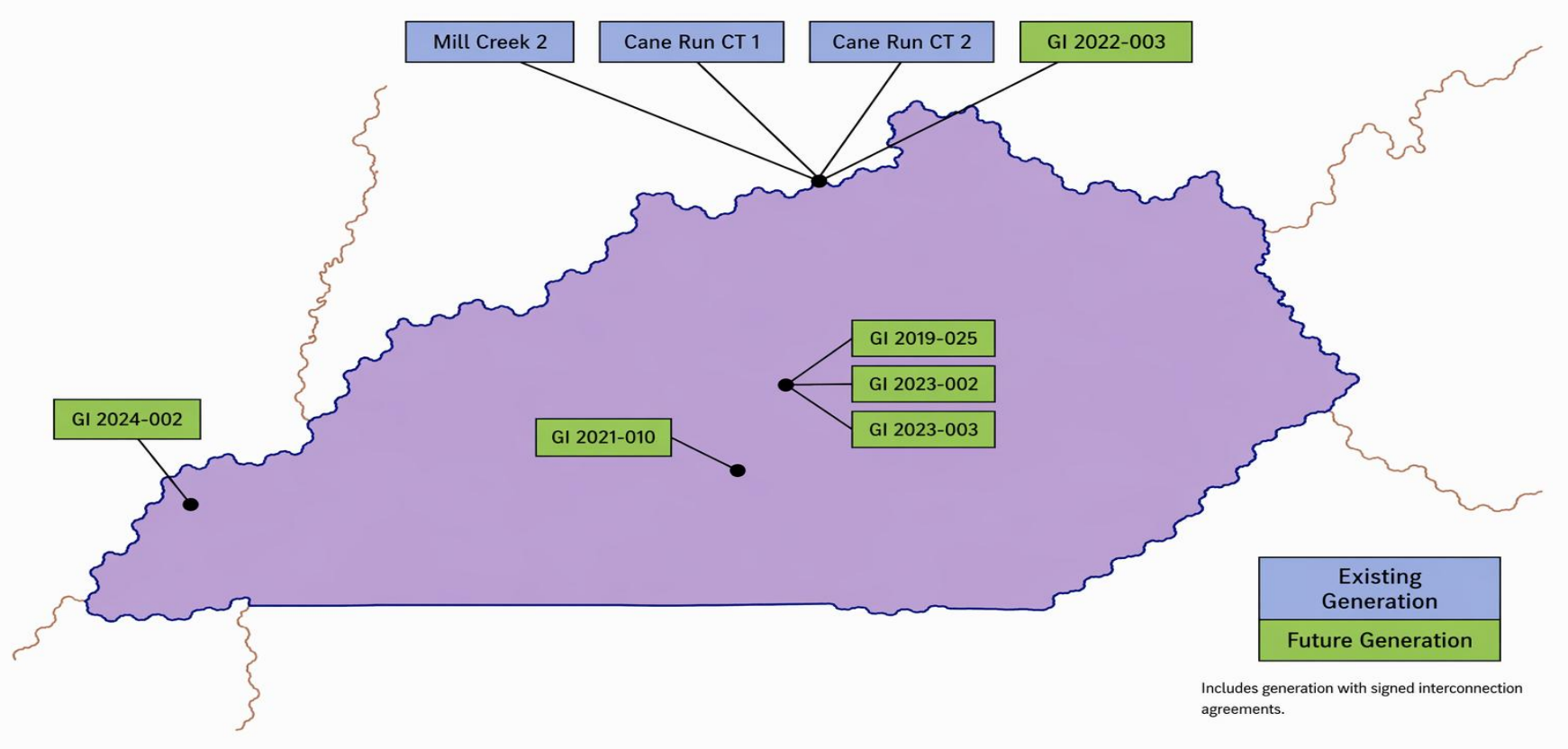
LG&E/KU Balancing Authority Area

2026 Generation Assumptions

LG&E/KU Balancing Authority Area

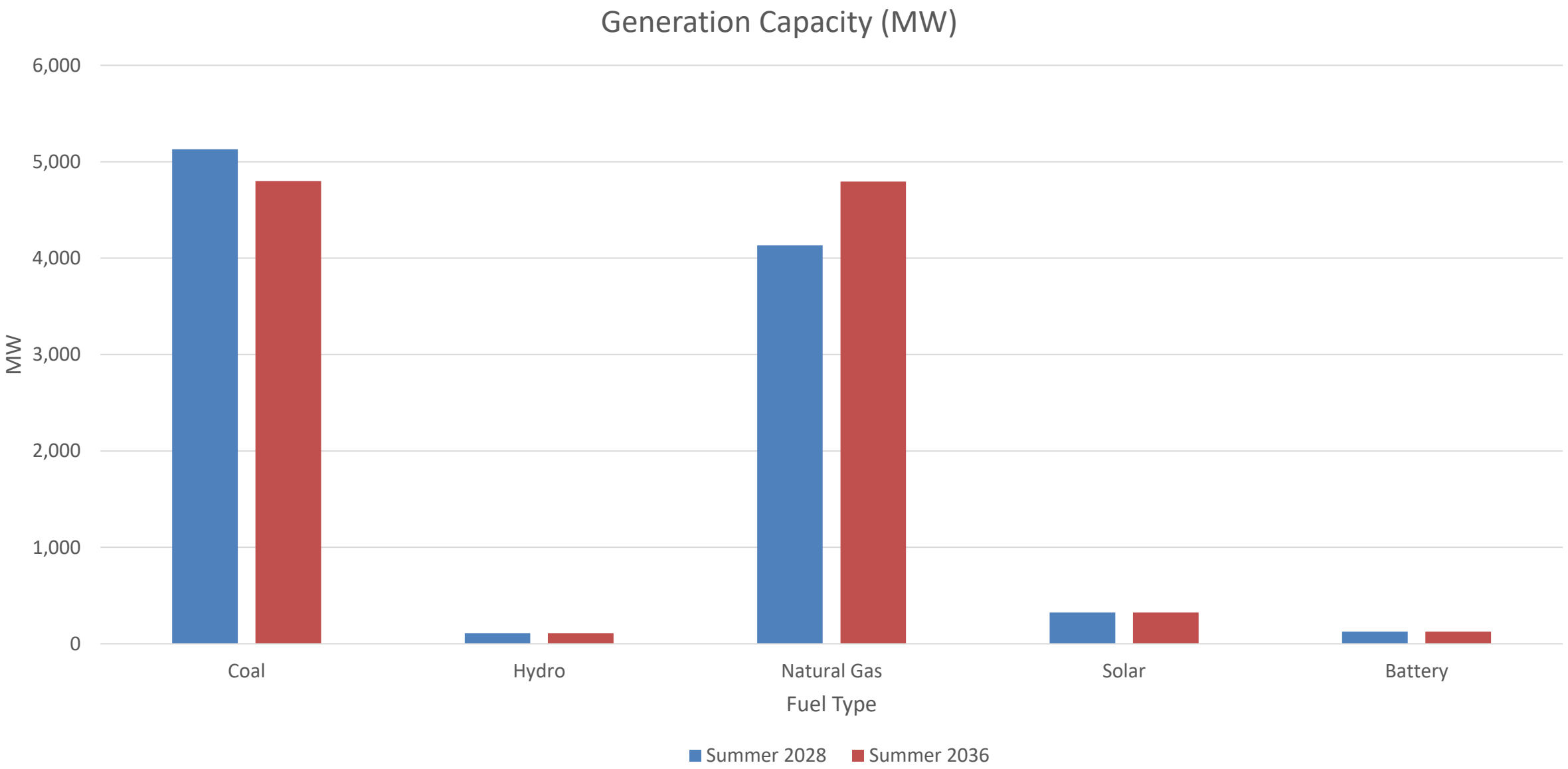
LG&E/KU Generation Assumptions

The following diagram depicts location of generation assumptions <u>that change</u> throughout the ten-year planning horizon for the 2026 SERTP Process.



Southeastern Regional TRANSMISSION PLANNING

LG&E/KU Generation Summary



LG&E/KU – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Mill Creek 2	Coal	330	330	330	330	0	0	0	0	0	0
GI-2022-003	Gas	661	661	661	661	661	661	661	661	661	661
GI-2021-010	Solar	120	120	120	120	120	120	120	120	120	120
GI-2019-025	Solar	122	122	122	122	122	122	122	122	122	122
GI-2023-002	Gas	--	--	--	661	661	661	661	661	661	661
GI-2023-003	Battery	125	125	125	125	125	125	125	125	125	125
GI-2024-002	Gas	75	75	75	75	75	75	75	75	75	75
Cane Run 7 CT1	Gas	261	261	261	261	261	261	261	261	261	261
Cane Run 7 CT2	Gas	261	261	261	261	261	261	261	261	261	261

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	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
TRIMBLE COUNTY	324	324	324	324	324	324	324	324	324	324

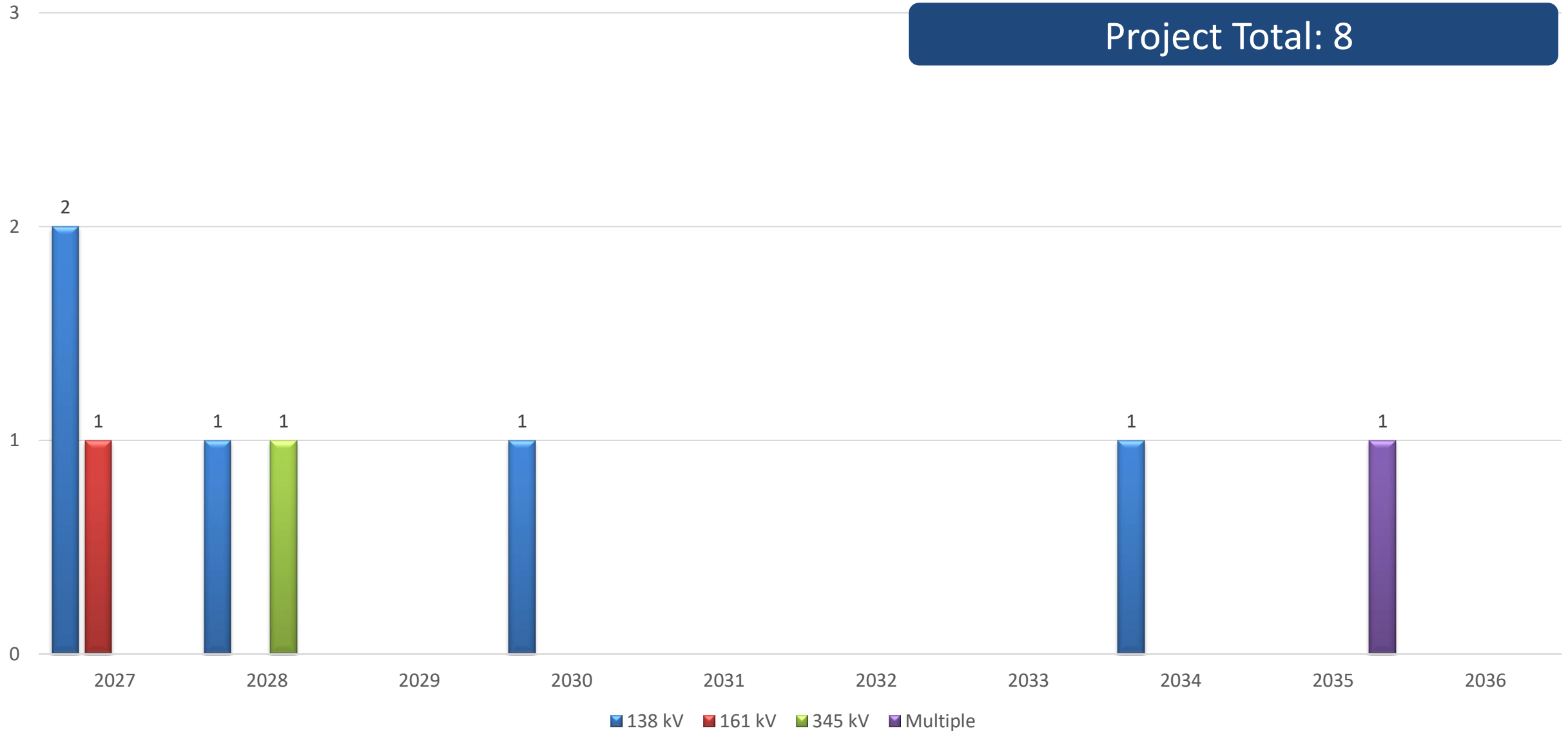
LG&E/KU Balancing Authority Area

Preliminary Transmission Expansion Plan

Southeastern Regional TRANSMISSION PLANNING

LG&E/KU Project Summary

Project Total: 8

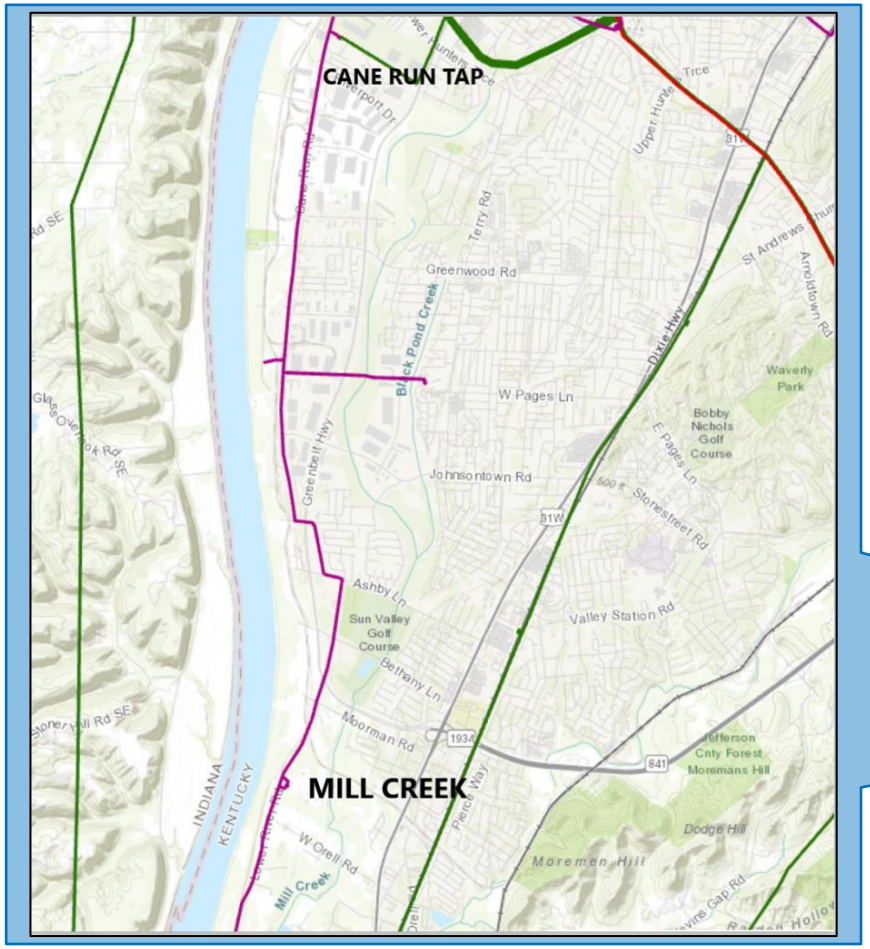


LG&E/KU Balancing Authority Area

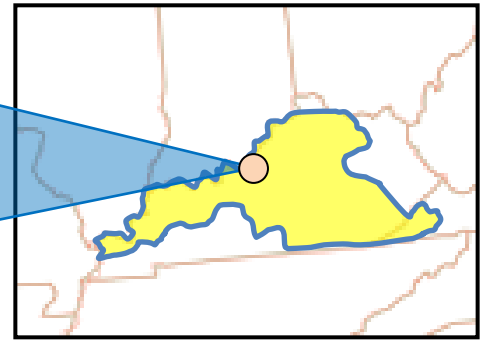
LG&E/KU

- **2028**

MILL CREEK – CANE RUN TAP 345 KV TRANSMISSION LINE



- **DESCRIPTION:**
  - Replace 0.38 miles of transmission line with bundled 954 ACSR and increase the maximum operating temperature of 10.23 miles of bundled 954 ACSR to 205°F in the Mill Creek to Cane Run Tap 345 kV transmission line.
- **SUPPORTING STATEMENT:**
  - New generation causes the Mill Creek – Cane Run Tap 345 kV transmission line to become overloaded.



SOUTHERN Balancing Authority Area

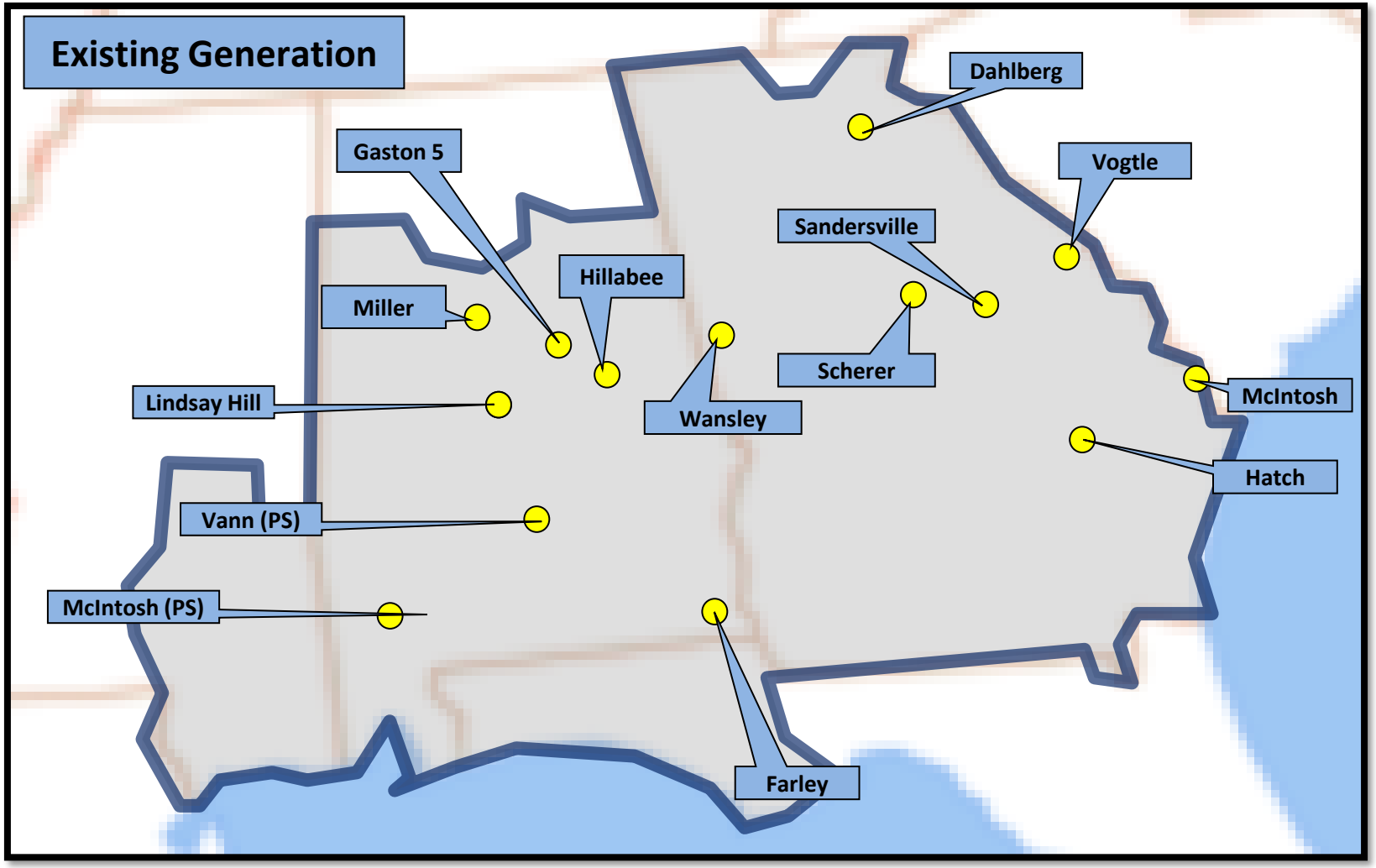
SOUTHERN Balancing Authority Area

2026 Generation Assumptions

SOUTHERN Balancing Authority Area

SOUTHERN – Generation Assumptions (Existing)

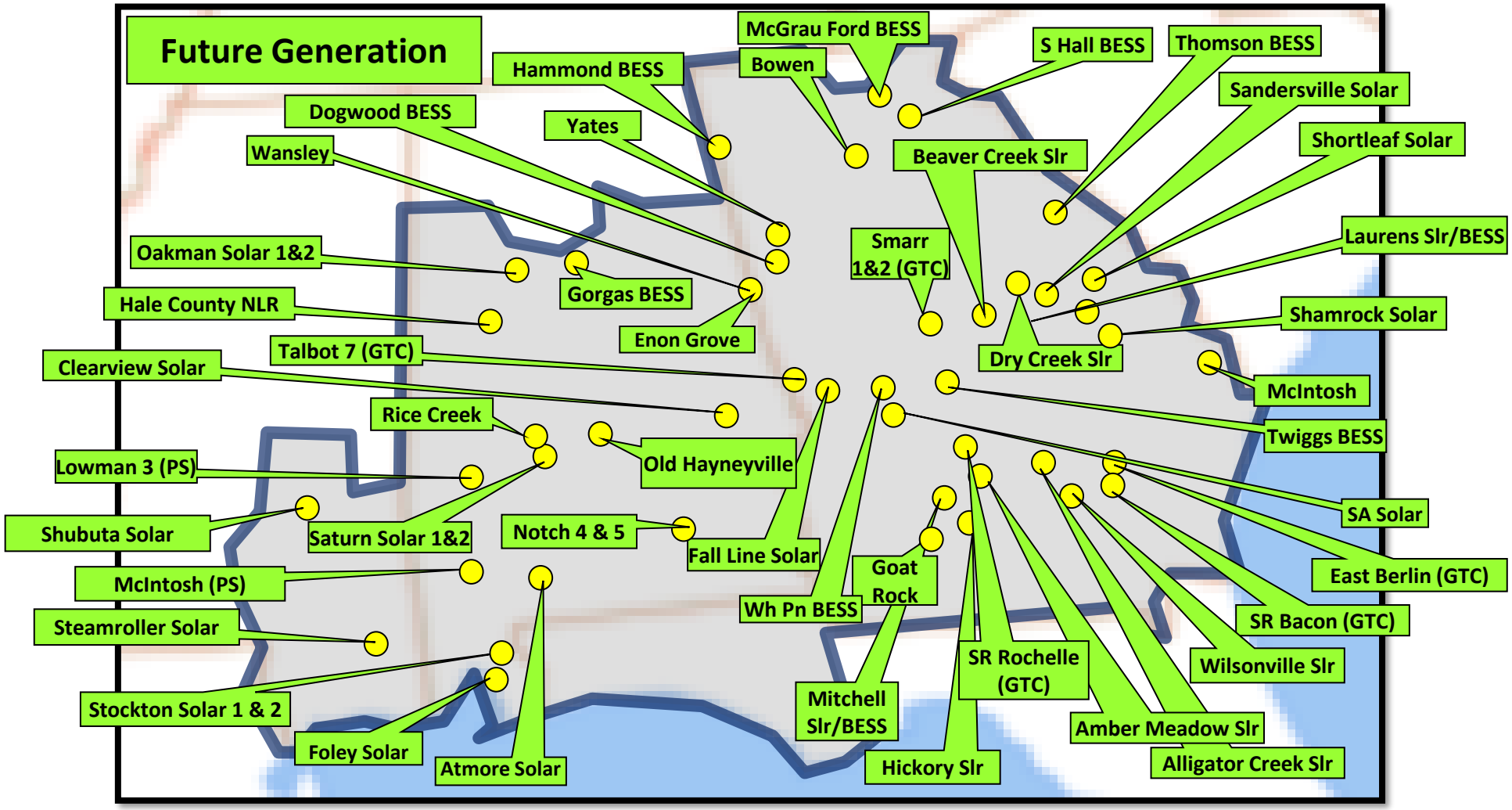
The following diagram depicts the location of generation assumptions discussed in the following slides.



SOUTHERN Balancing Authority Area

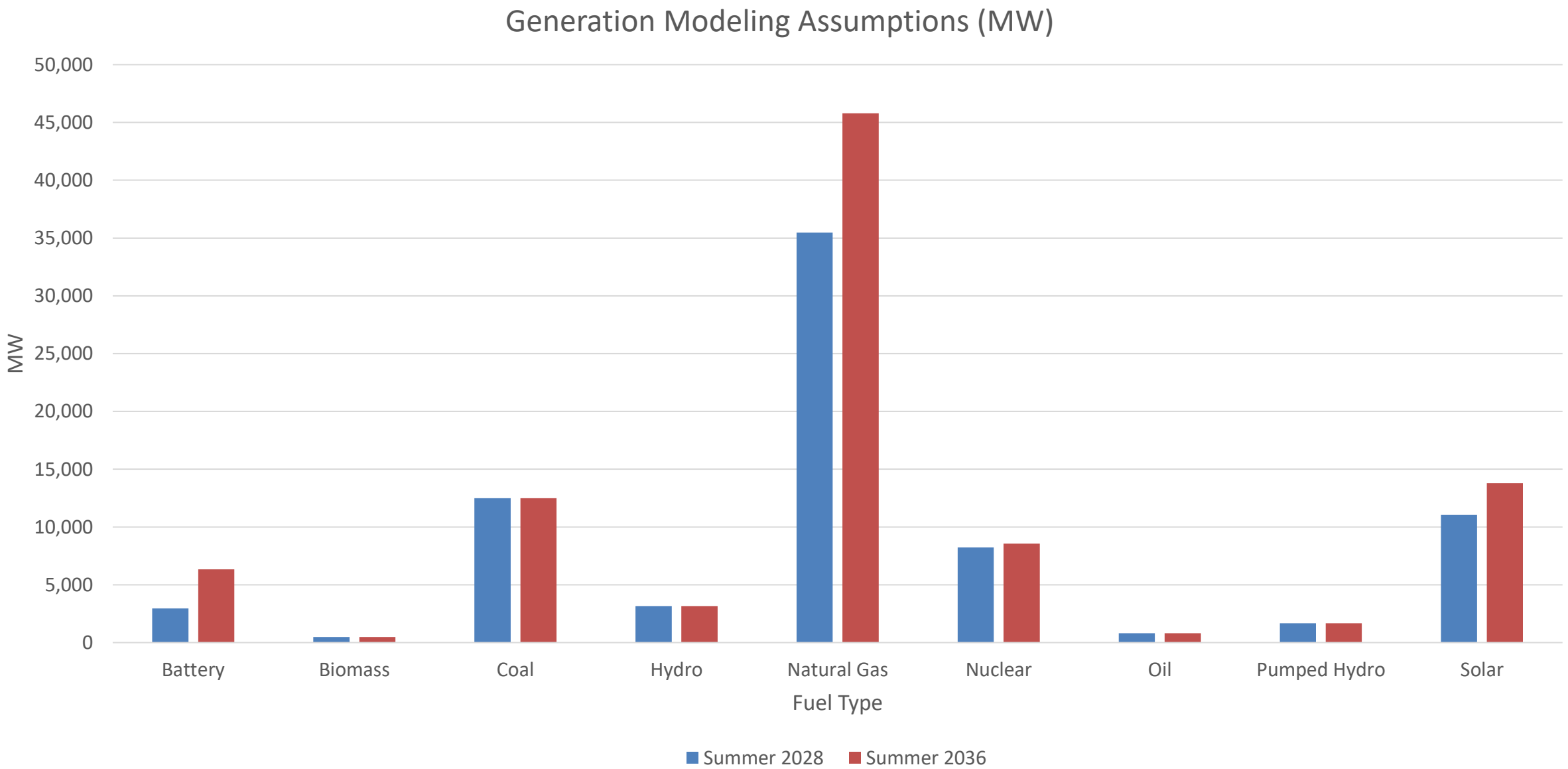
SOUTHERN – Generation Assumptions (Future)

The following diagram depicts the location of generation assumptions discussed in the following slides.



Southeastern Regional TRANSMISSION PLANNING

SBAA Generation Summary



Southern Company – Generation Assumptions

The following table depicts the generation assumptions <u>that change</u> throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Bowen 7 & 8	Natural Gas	--	--	--	1488	1488	1488	1488	1488	1488	1488
Enon Grove 1-4 [3]	Natural Gas	--	--	--	--	--	2012	2012	2012	2012	2012
Gaston 5 [1]	Coal/Natural Gas	946	946	946	946	946	946	946	946	946	946
Hale County NLR	Natural Gas	--	--	--	--	--	--	733	733	733	733
Lindsay Hill [2]	Natural Gas	220	300	940	1000	1000	1000	1000	1000	1000	1000
McIntosh CTs 1-8	Natural Gas	658	666	709	726	726	726	726	726	726	726
McIntosh 10 & 11	Natural Gas	1359	1359	1444	1444	1444	1444	1444	1444	1444	1444
McIntosh 12	Natural Gas	--	--	--	--	744	744	744	744	744	744
Wansley 10 & 11	Natural Gas	--	--	--	1466	1466	1466	1466	1466	1466	1466
Yates 8, 9, & 10	Natural Gas	882	1323	1323	1323	1323	1323	1323	1323	1323	1323

1 Plant conversion from coal to gas.
2 Third-party delivery service ending, transitioning generation to a Designated Network Resource.
3 Generator with signed IA without transmission service.

Southern Company – Generation Assumptions Continued

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Alligator Creek Solar	Solar	80	80	80	80	80	80	80	80	80	80
Amber Meadow Solar	Solar	--	--	--	200	200	200	200	200	200	200
Atmore Solar	Solar	80	80	80	80	80	80	80	80	80	80
Beaver Creek Solar	Solar	--	--	--	183	183	183	183	183	183	183
Clearview Solar	Solar	--	200	200	200	200	200	200	200	200	200
Dry Creek Solar	Solar	--	--	--	205	205	205	205	205	205	205
Fall Line Solar	Solar	--	--	20	20	20	20	20	20	20	20
Foley Solar	Solar	80	80	80	80	80	80	80	80	80	80
Goat Rock Solar [3]	Solar	227	227	227	227	227	227	227	227	227	227
Hickory Solar	Solar	--	--	--	260	260	260	260	260	260	260

[3] Generator with signed IA without transmission service.

Southern Company – Generation Assumptions Continued

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Notch 4 & 5	Solar	160	160	160	160	160	160	160	160	160	160
Oakman Solar 1 & 2	Solar	--	--	162.5	162.5	162.5	162.5	162.5	162.5	162.5	162.5
Old Hayneville Solar	Solar	80	80	80	80	80	80	80	80	80	80
Rice Creek Solar [3]	Solar	336	336	336	336	336	336	336	336	336	336
SA Solar [3]	Solar	--	200	200	200	200	200	200	200	200	200
Sandersville Solar	Solar	--	50	50	50	50	50	50	50	50	50
Saturn Solar 1 & 2	Solar	80	80	80	80	80	80	80	80	80	80
Shamrock Solar	Solar	--	--	--	230	230	230	230	230	230	230
Shortleaf Solar	Solar	--	--	--	185	185	185	185	185	185	185
Shubuta Solar	Solar	--	--	156	200	200	200	200	200	200	200

[3] Generator with signed IA without transmission service.

Southern Company – Generation Assumptions Continued

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Steamroller Solar	Solar	--	--	150	170	170	170	170	170	170	170
Stockton Solar 1 & 2	Solar	--	--	--	260	260	260	260	260	260	260
Wilsonville Solar	Solar	--	--	--	200	200	200	200	200	200	200
Bowen 1 & 2 BESS	Battery	--	--	250	500	500	500	500	500	500	500
Dogwood BESS [3]	Battery	--	101	101	101	101	101	101	101	101	101
Gorgas BESS	Battery	150	150	150	150	150	150	150	150	150	150
Hammond PH1 BESS	Battery	58	58	58	58	58	58	58	58	58	58
Hammond PH2 BESS	Battery	--	--	--	--	192	192	192	192	192	192
McGrau Ford BESS	Battery	530	530	530	530	530	530	530	530	530	530
McIntosh BESS	Battery	--	--	--	--	250	250	250	250	250	250

[3] Generator with signed IA without transmission service.

Southern Company – Generation Assumptions Continued

The following table depicts the generation assumptions <u>that change</u> throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
South Hall BESS	Battery	--	--	250	250	250	250	250	250	250	250
25-SIC-007 BESS [3, 4]	Battery	--	152	152	152	152	152	152	152	152	152
25-SIC-008 BESS [3, 4]	Battery	--	77	77	77	77	77	77	77	77	77
Thomson BESS	Battery	--	--	--	500	500	500	500	500	500	500
Twiggs BESS [4]	Battery	--	200	200	200	200	200	200	200	200	200
White Pines BESS [4]	Battery	--	101	101	101	101	101	101	101	101	101
Wansley BESS	Battery	--	--	500	500	500	500	500	500	500	500
Yates 1 & 2 BESS	Battery	--	--	570	570	570	570	570	570	570	570

[3] Generator with signed IA without transmission service.

[4] Surplus Interconnection Service; no additional net MW at the Point of Interconnection.

Southern Company – Generation Assumptions Continued

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Laurens County Solar/BESS	Solar + Storage	--	--	200	200	200	200	200	200	200	200
Mitchell Solar/BESS	Solar + Storage	--	--	150	150	150	150	150	150	150	150
Farley 1	Nuclear	927	927	927	927	927	977	977	977	977	977
Farley 2	Nuclear	907	920	920	920	970	970	970	970	970	970
Hatch 1 [5]	Nuclear	441	441	441	493	493	493	493	493	493	493
Hatch 2 [5]	Nuclear	446	446	505	505	505	505	505	505	505	505
Vogtle 1 [5]	Nuclear	542	542	542	542	566	566	566	566	566	566
Vogtle 2 [5]	Nuclear	543	543	543	543	570	570	570	570	570	570
Bowen Provisional Units [6]	None	--	--	--	1466	1466	1466	1466	1466	1466	1466

[5] Indicates the assigned portion of a joint-owned unit.

[6] Provisional unit locations do not represent long term generation resource plans and may be moved based on study needs.

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	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
DAHLBERG	44	44	44	44	44	44	44	44	44	44
HILLABEE	210	210	210	210	210	210	210	210	210	210
LINDSAY HILL[1]	220	--	--	--	--	--	--	--	--	--
MILLER[2]	1033	1500	1500	1500	1500	1500	1500	1500	1500	1500
SANDERSVILLE	267	--	292	292	292	292	292	292	292	292
SCHERER	210	210	210	210	210	210	210	210	210	210
VOGTLE	206	206	206	206	206	206	206	206	206	206
WANSLEY[2]	271	71	71	71	71	71	71	71	71	71

1 Third-party delivery service ending, transitioning generation to a Designated Network Resource.
2 Third-party delivery service, sourcing from a Designated Network Resource, will likely require a redirect to new source.

SOUTHERN Balancing Authority Area

GTC – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
East Berlin	Solar	20	20	20	20	22	22	22	22	22	22
SR Bacon	Solar	85	200	300	300	300	300	300	300	300	300
SR Norwood	Solar	107	107	107	107	107	107	107	107	107	107
SR Rochelle	Solar	90	140	140	140	140	140	140	140	140	140
Smarr CC	Natural Gas	--	--	1550	1550	1550	1550	1550	1550	1550	1550
Talbot 7	Natural Gas	--	250	250	250	250	250	250	250	250	250

SOUTHERN Balancing Authority Area

GTC – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Hatch 1 [5]	Nuclear	264	264	264	283	283	283	283	283	283	283
Hatch 2 [5]	Nuclear	267	267	290	290	290	290	290	290	290	290
Vogtle 1 [5]	Nuclear	348	348	348	348	363	363	363	363	363	363
Vogtle 2 [5]	Nuclear	348	348	348	348	365	365	365	365	365	365

[5] Indicates the assigned portion of a joint-owned unit.

MEAG – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Hatch 1 [5]	Nuclear	156	156	156	167	167	167	167	167	167	167
Hatch 2 [5]	Nuclear	158	158	171	171	171	171	171	171	171	171
Vogtle 1 [5]	Nuclear	250	250	250	250	261	261	261	261	261	261
Vogtle 2 [5]	Nuclear	251	251	251	251	263	263	263	263	263	263

[5] Indicates the assigned portion of a joint-owned unit.

DALTON – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
NO KNOWN UPDATES AT THIS TIME											

POWERSOUTH – Generation Assumptions

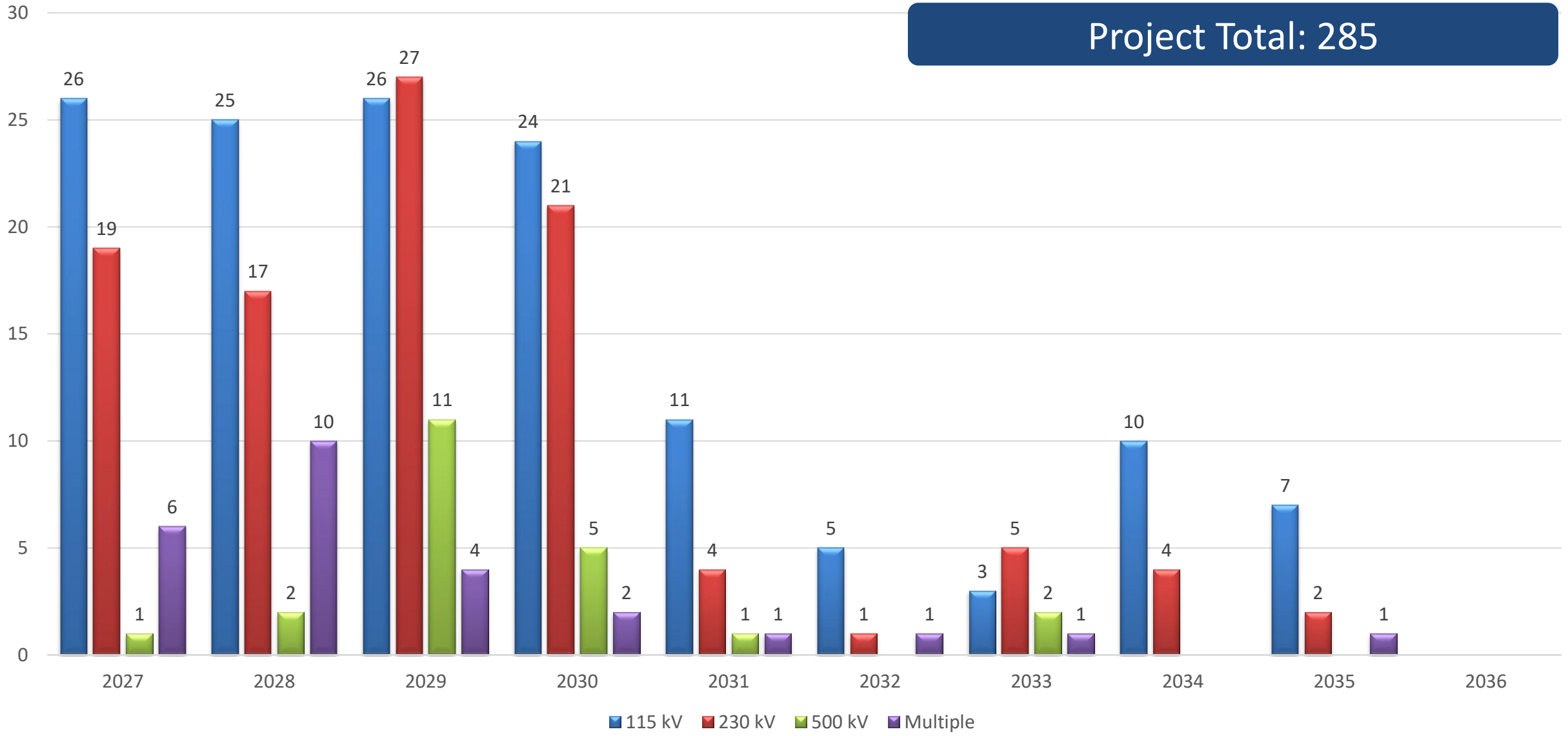
The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Lowman Unit 3 CT	Natural Gas	--	--	--	420	420	420	420	420	420	420
McIntosh 1	Natural Gas	24	110	110	110	110	110	110	110	110	110
McIntosh 6	Natural Gas	--	--	--	--	--	240	240	240	240	240
Vann 1	Natural Gas	168	191	191	191	191	191	191	191	191	191
Vann 2	Natural Gas	191	191	191	191	191	191	191	191	191	191
Vann 3	Natural Gas	180	185	185	185	185	185	185	185	185	185

Southeastern Regional TRANSMISSION PLANNING

SBAA Project Summary

Project Total: 285



SOUTHERN Balancing Authority Area

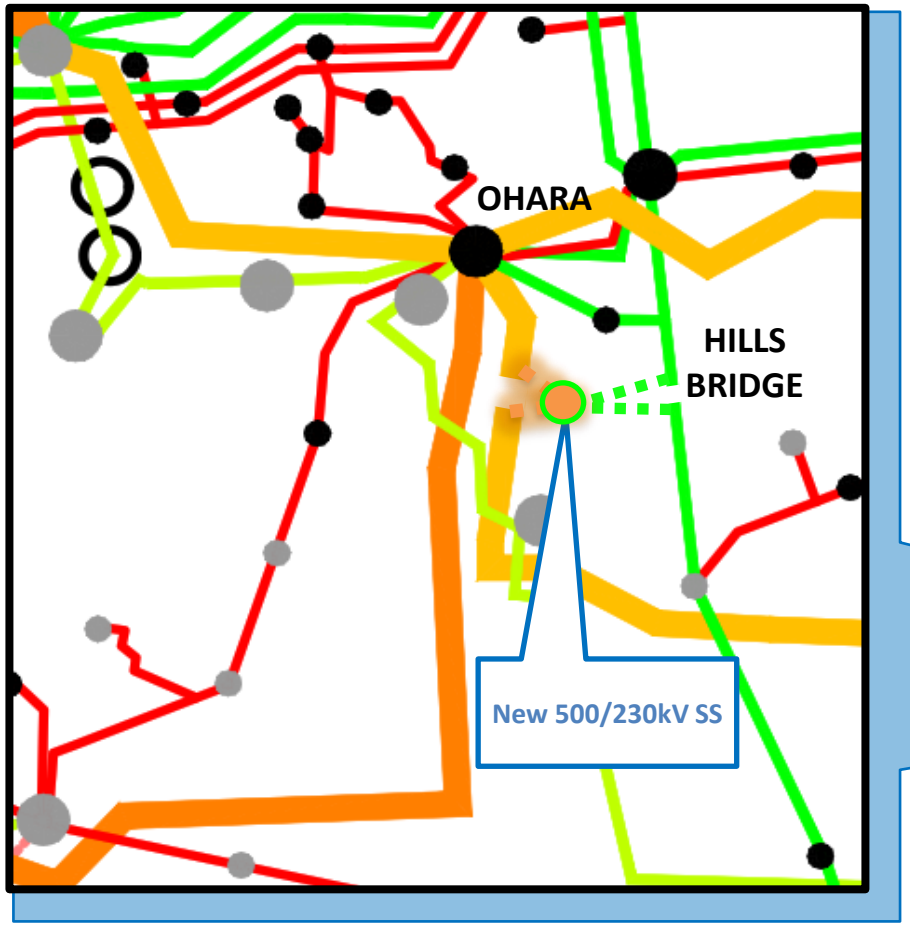
Preliminary Transmission Expansion Plan

SOUTHERN Balancing Authority Area

SOUTHERN

• 2027

SOCO: HILLS BRIDGE 500/230 KV SUBSTATION

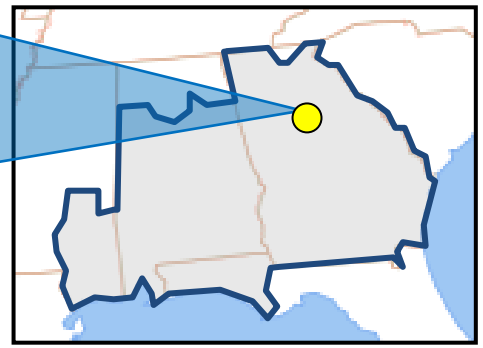


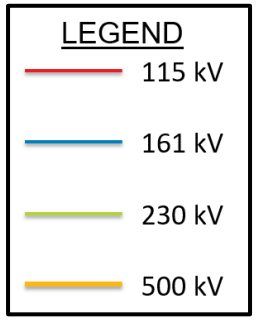
DESCRIPTION:

- Build a new 500/230 kV substation looping in the Ohara - Scherer 500kV line. Build two 230 kV lines to customer substation with (2) 200C 1351 ACSS Martin.

SUPPORTING STATEMENT:

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



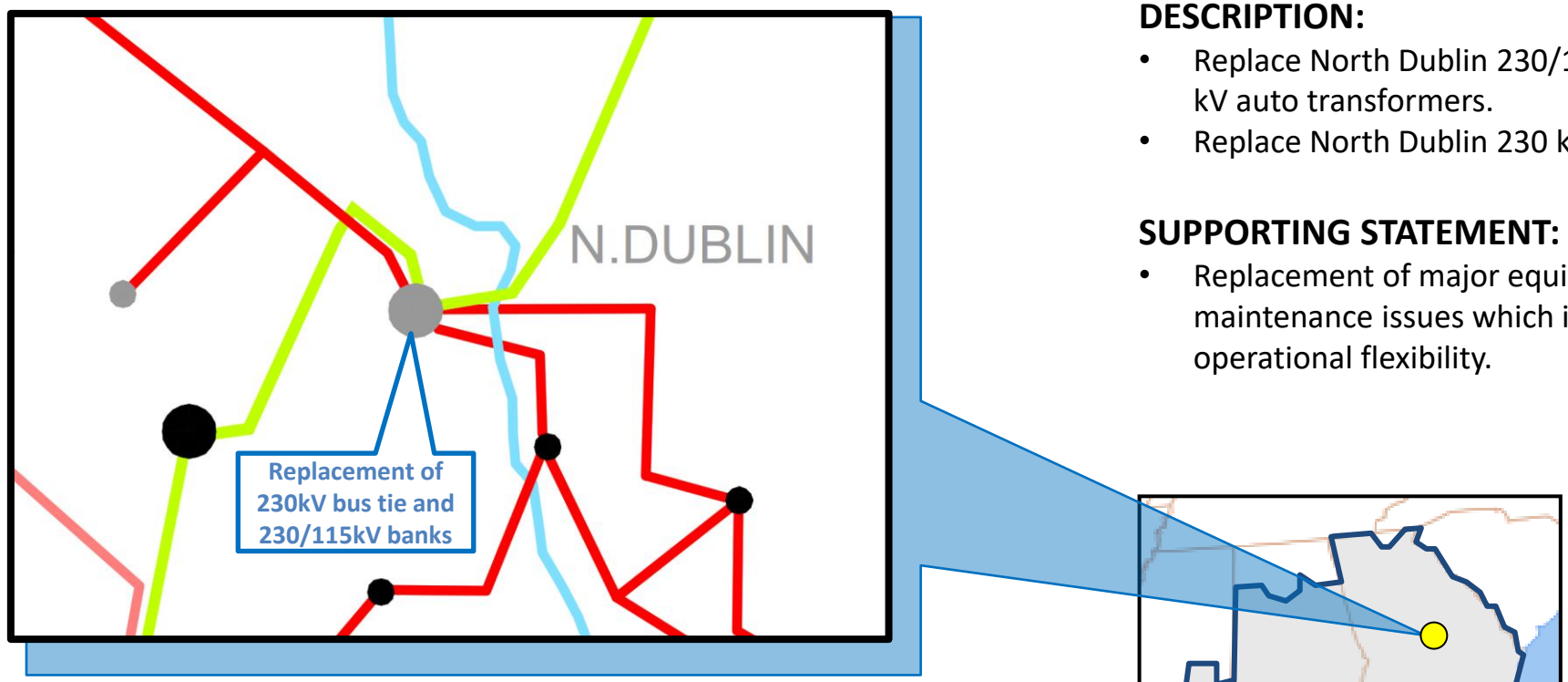


SOUTHERN Balancing Authority Area

SOUTHERN

• **2028**

GTC: NORTH DUBLIN 230/115 KV TRANSFORMERS AND BUS-TIE BREAKER

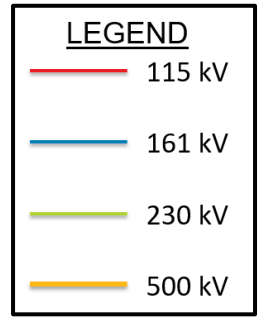


DESCRIPTION:

- Replace North Dublin 230/115 kV Banks A & B with (2) new 230/115 kV auto transformers.
- Replace North Dublin 230 kV bus tie breaker with a new breaker.

SUPPORTING STATEMENT:

- Replacement of major equipment needed due to ongoing maintenance issues which increases system reliability and operational flexibility.

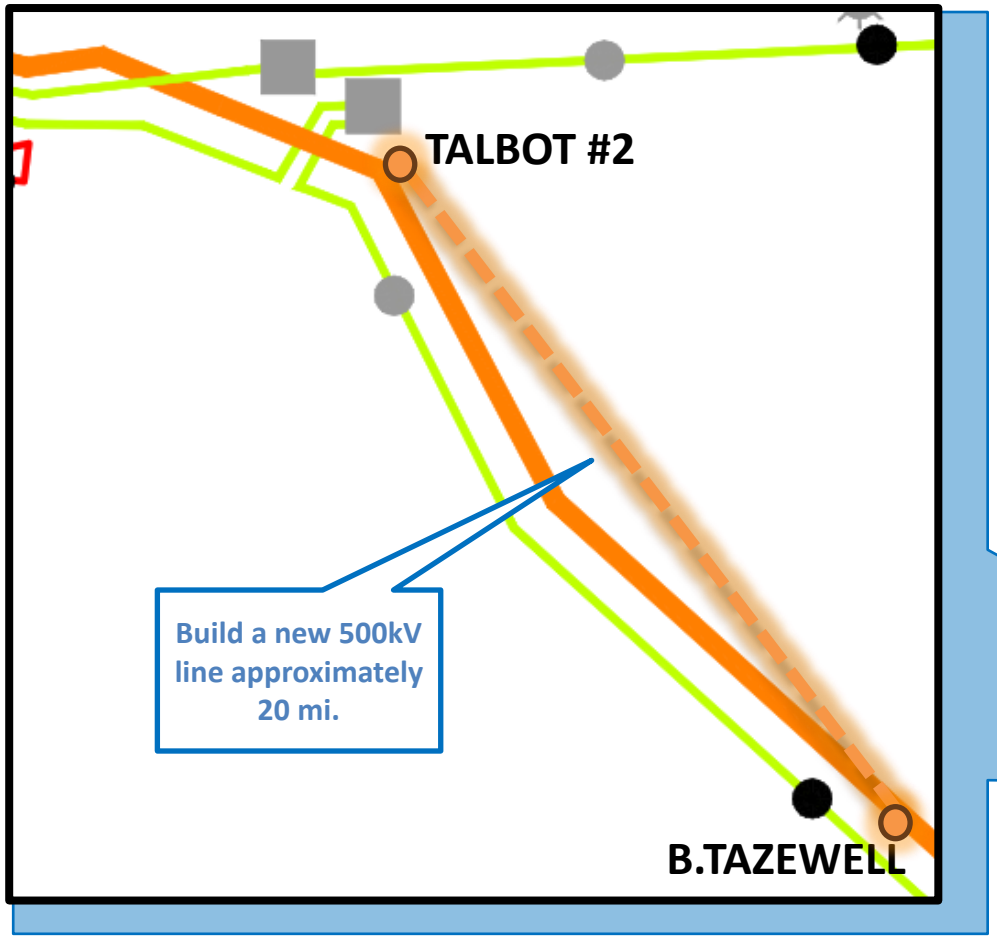


SOUTHERN Balancing Authority Area

SOUTHERN

• **2029**

GTC: BIG TAZEWELL - TALBOT #2 500 KV LINE

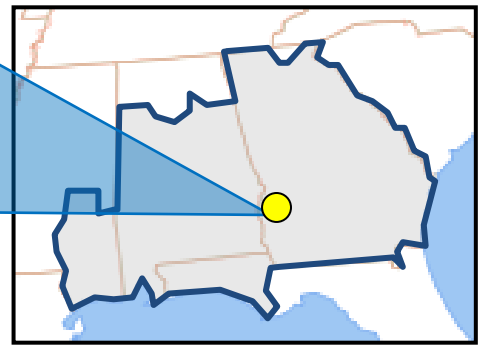


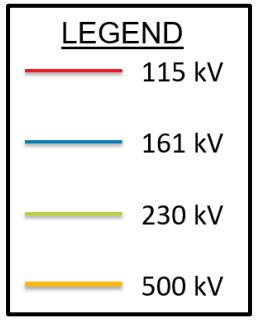
DESCRIPTION:

- Build a 20 miles 500 kV line from Talbot #2 to Big Tazewell with (3) 100°C 1113 ACSR conductor.
- Make all necessary accommodations at Talbot #2 to accommodate the new line termination.

SUPPORTING STATEMENT:

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



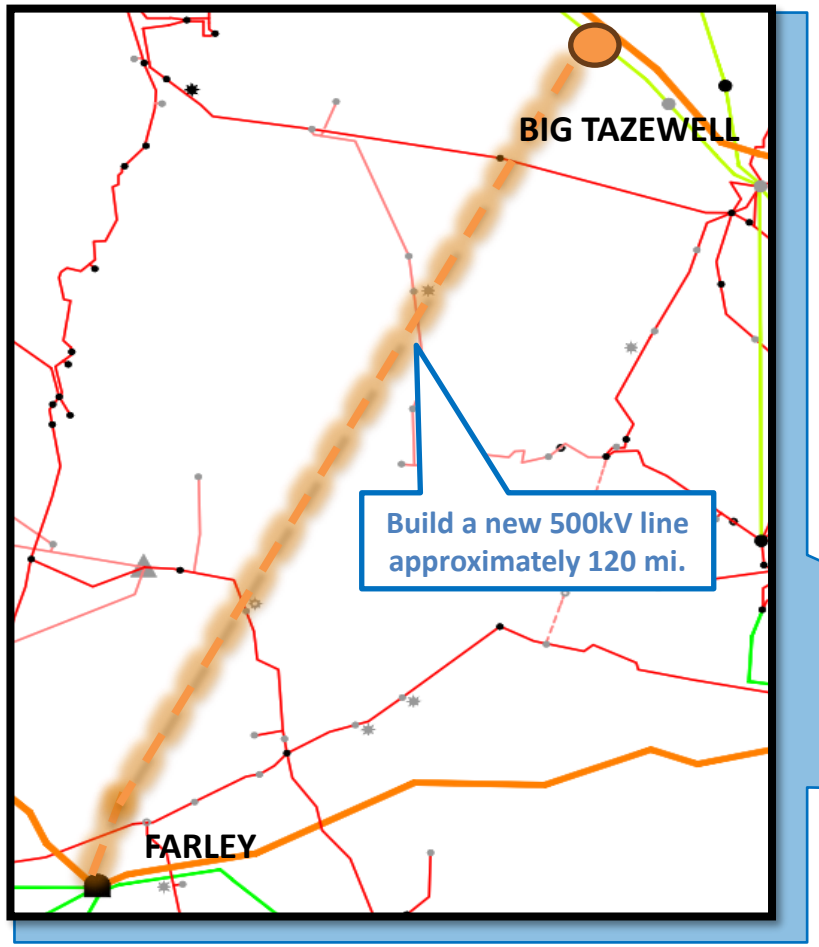


SOUTHERN Balancing Authority Area

SOUTHERN

• **2029**

SOCO: BIG TAZEWELL - FARLEY 500 KV LINE

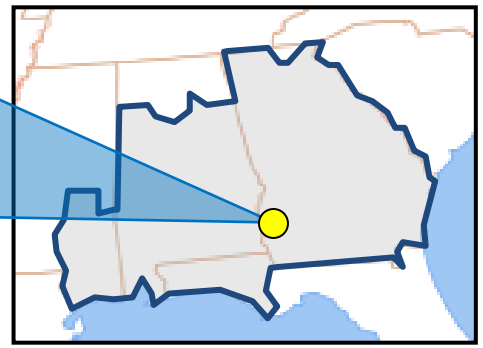


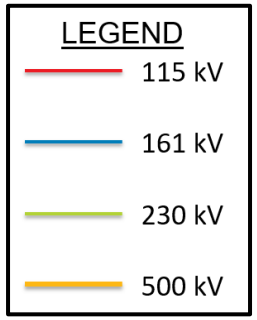
DESCRIPTION:

- Build a 120 miles of 500 kV line from Farley to Big Tazewell with (3) 100°C 1113 ACSR.
- Build the Big Tazewell 500 kV substation and provide accommodations for the line termination.

SUPPORTING STATEMENT:

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



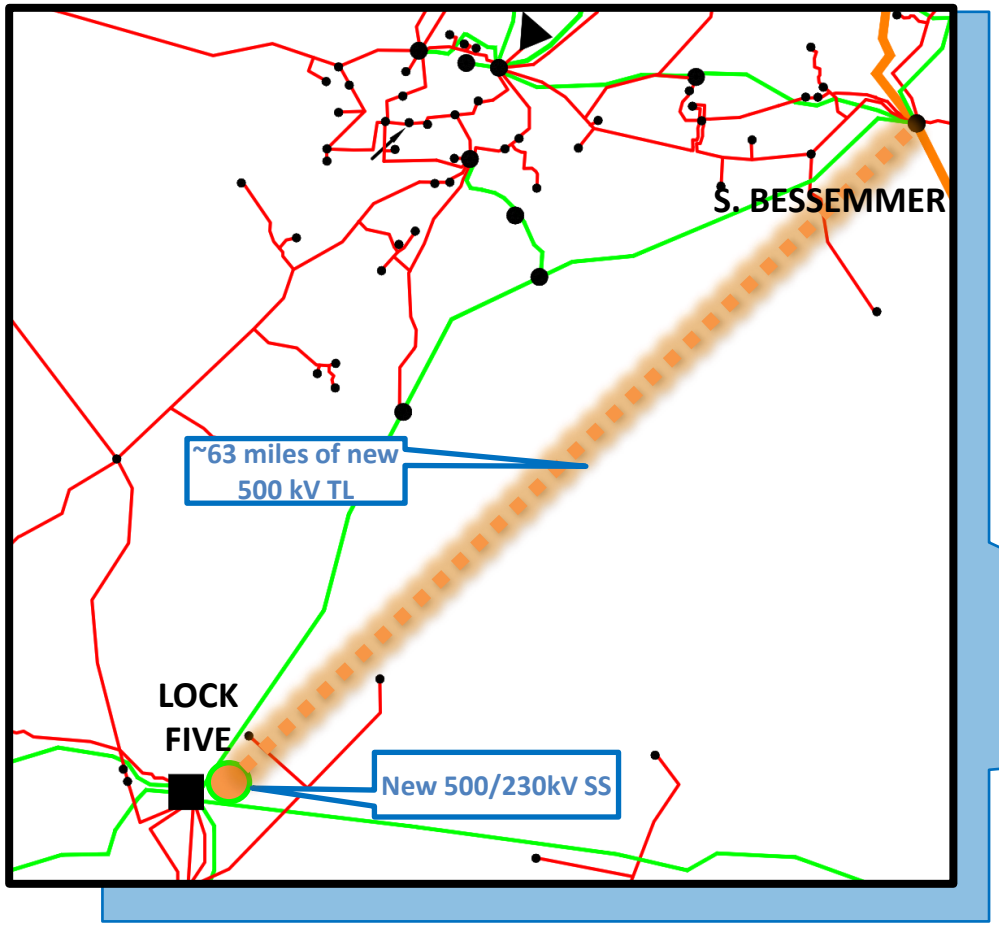


SOUTHERN Balancing Authority Area

SOUTHERN

• 2030

SOCO: LOCK FIVE - SOUTH BESSEMER 500 KV TL

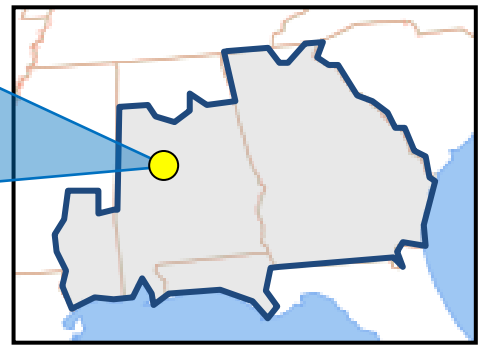


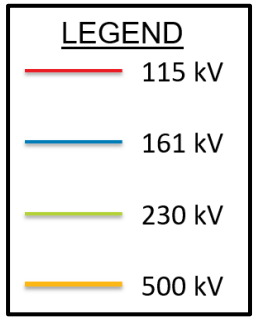
DESCRIPTION:

- Construct ~63 miles of new 500 kV TL of bundled (3) 1033.5 ACSR 45/7 @100°C from Lock Five Substation to S. Bessemer.
- Construct a new 500/230 kV Bank and 500 kV switchyard named Lock Five near Greene County Substation.
- Expand South Bessemer TS 500 kV yard to accommodate the new line terminal.

SUPPORTING STATEMENT:

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



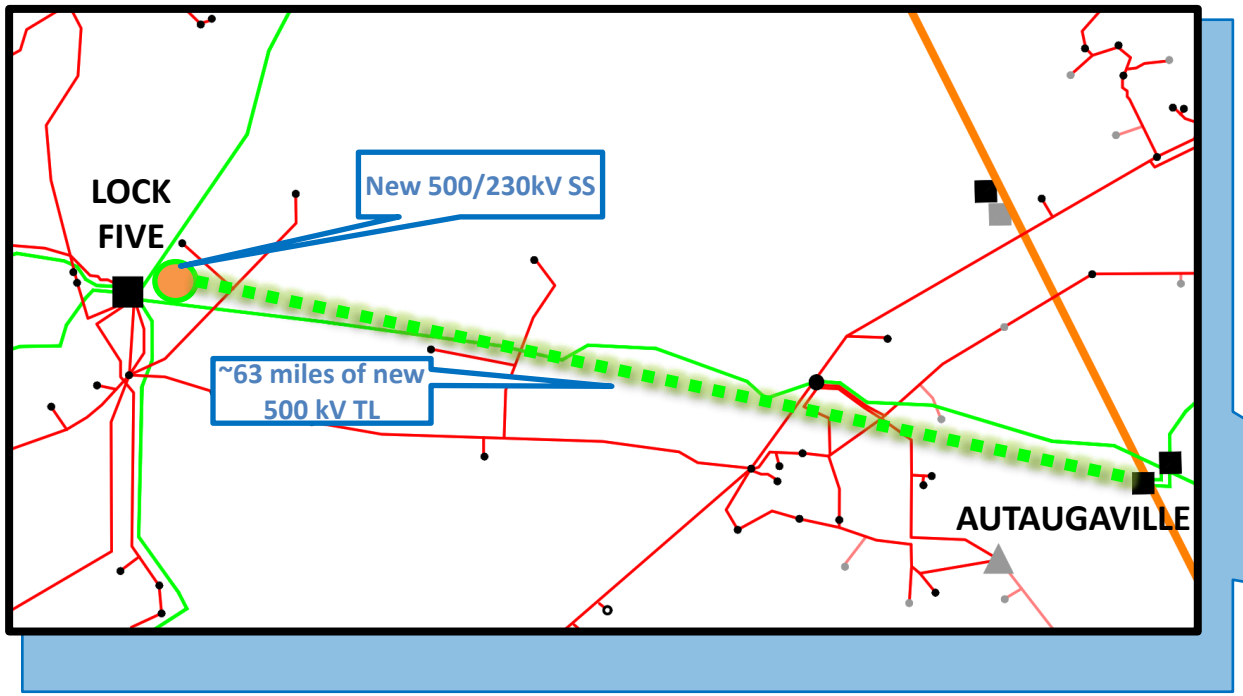


SOUTHERN Balancing Authority Area

SOUTHERN

• 2034

SOCO: LOCK FIVE – AUTAUGAVILLE 230 KV TL

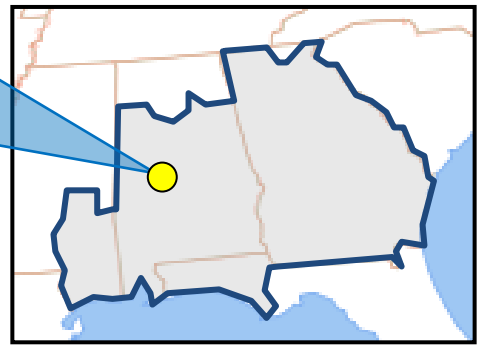


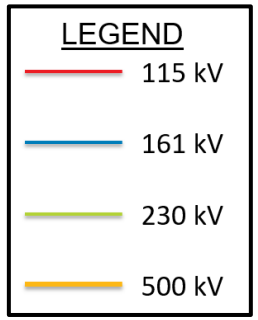
DESCRIPTION:

- Construct ~75 miles of new 230 kV TL of bundled (2) 1351 ACSR from Lock Five to Autaugaville.

SUPPORTING STATEMENT:

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



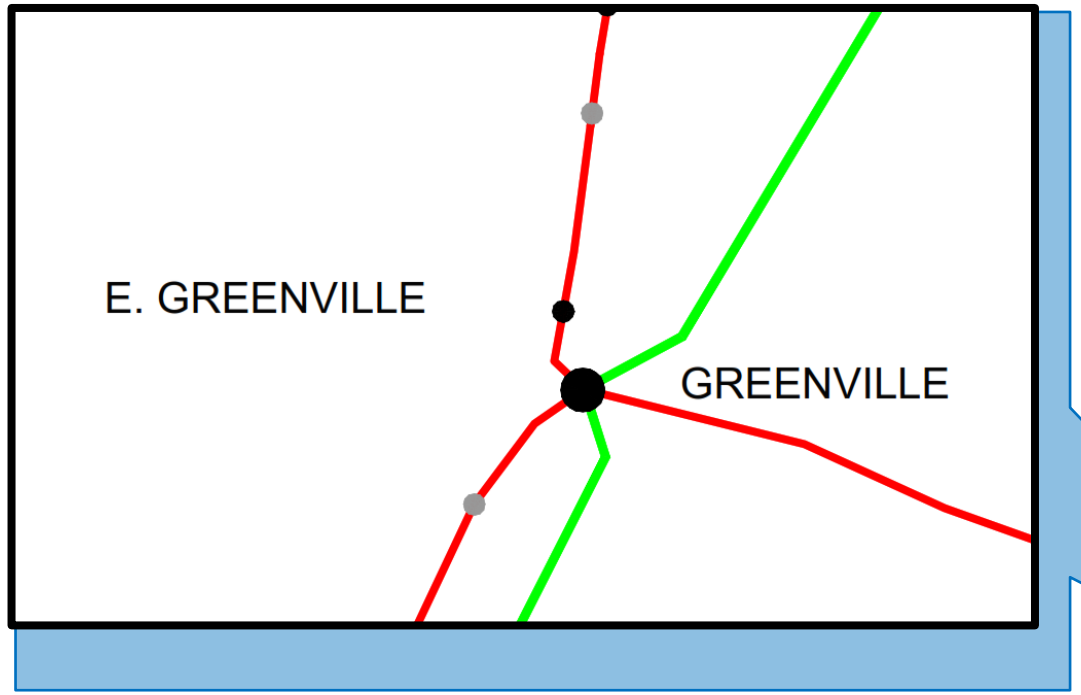


SOUTHERN Balancing Authority Area

SOUTHERN

• **2035**

SOCO: GREENVILLE AREA SOLUTION

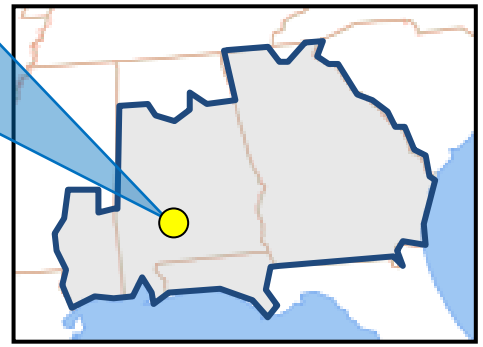


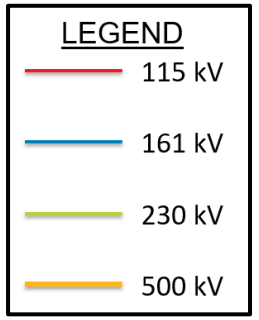
DESCRIPTION:

- Construct a 230 kV ring bus at Greenville TS to allow use of streamlined protection equipment and minimizing outage exposure.

SUPPORTING STATEMENT:

- This project addresses multiple thermal overloads that occur under contingency while increasing both system reliability and operational flexibility.





SOUTHERN Balancing Authority Area

SOUTHERN Balancing Authority Area - PowerSouth

Transmission Expansion Plan

* PowerSouth has no projects that meet the presentation criteria in the 2026 SERTP Process.

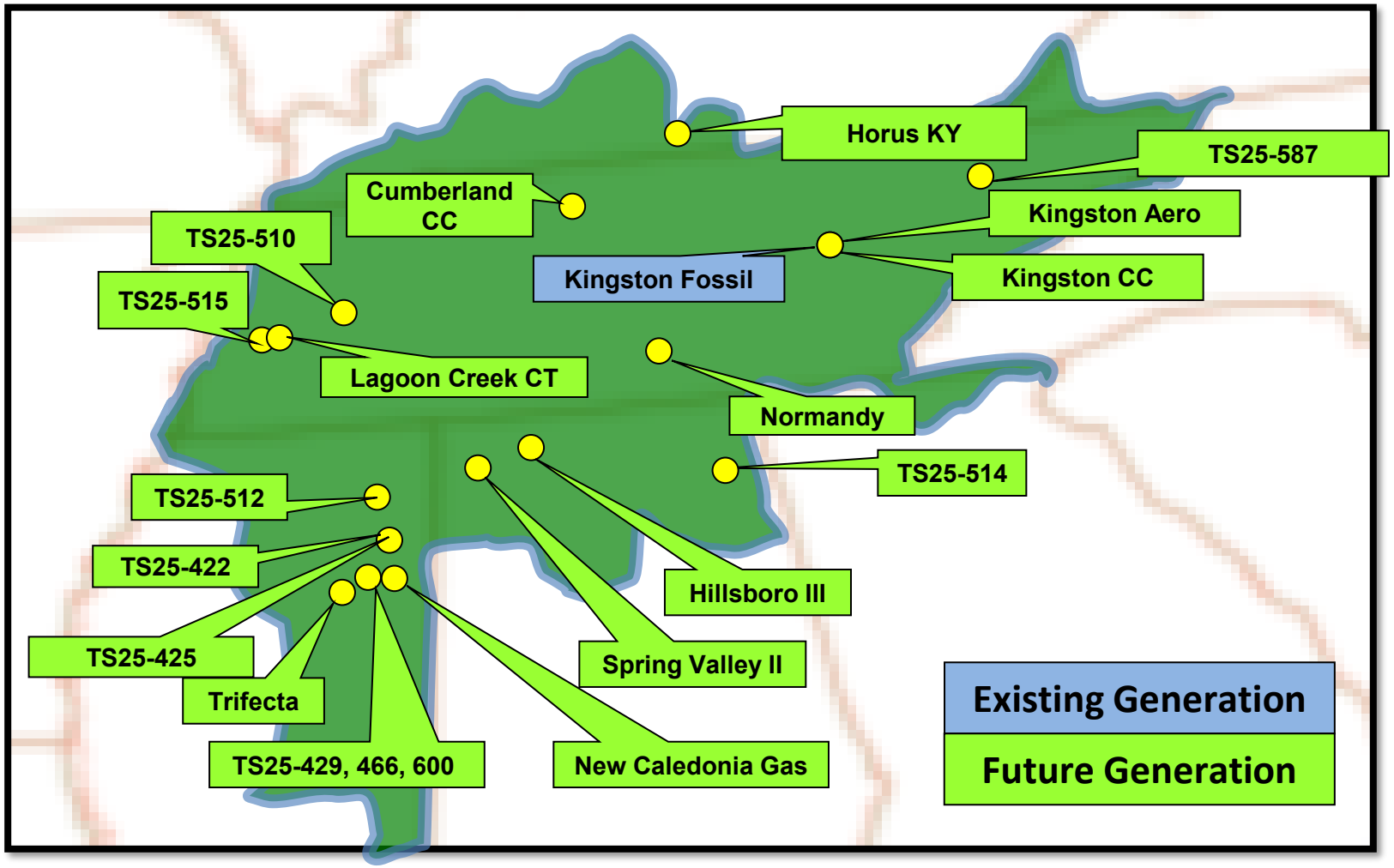
TVA Balancing Authority Area

2026 Generation Assumptions

TVA Balancing Authority Area

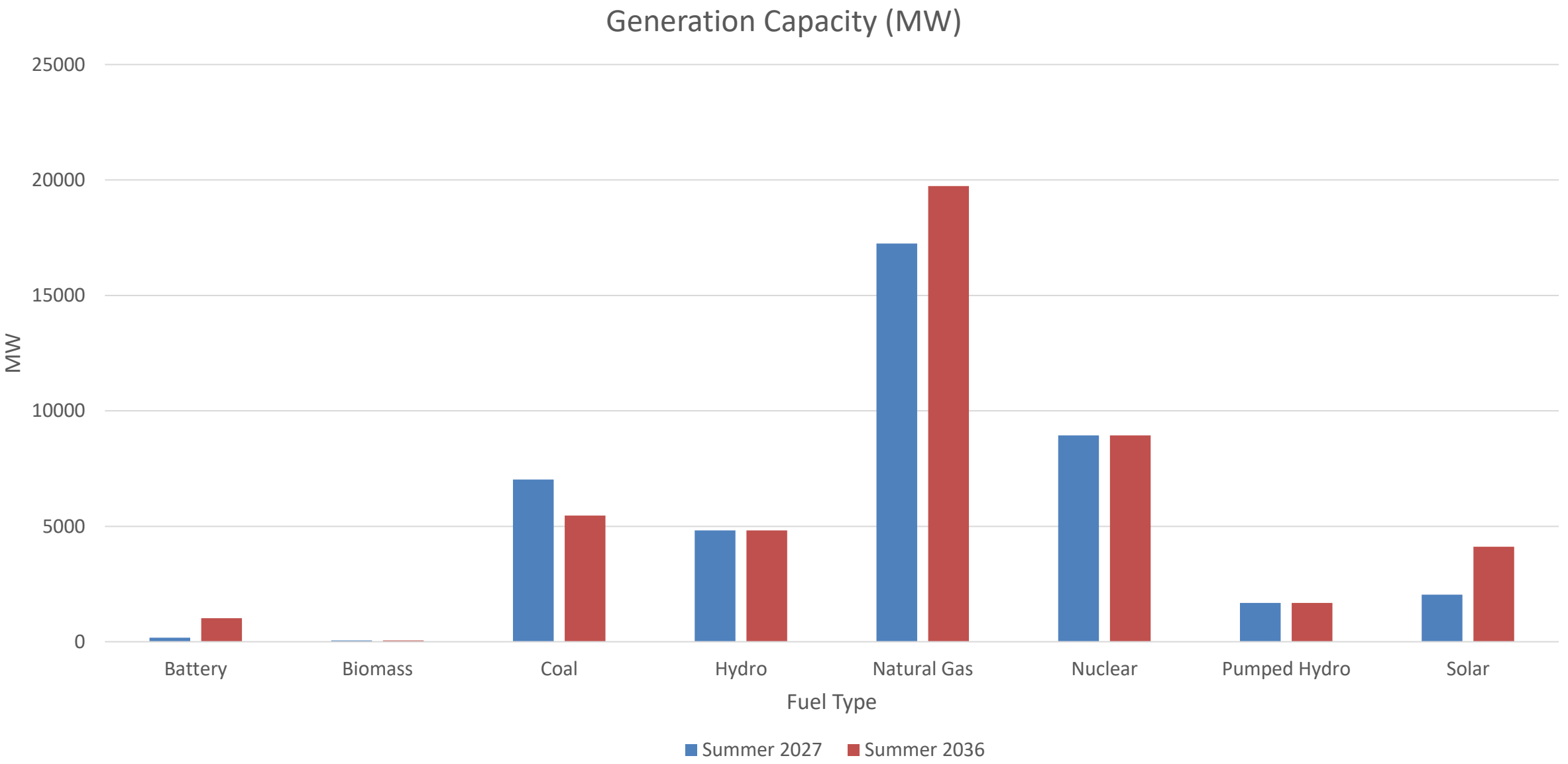
TVA – Generation Assumptions

The following diagram depicts the location of generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process.



Southeastern Regional TRANSMISSION PLANNING

TVA Generation Summary



TVA – Generation Assumptions

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
CUMBERLAND FP UNIT 2[1]	COAL	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130
CUMBERLAND FP UNIT 1[1]	COAL	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130
KINGSTON FP[1]	COAL	1157	0	--	--	--	--	--	--	--	--
CUMBERLAND CC	GAS	1346	1346	1346	1346	1346	1346	1346	1346	1346	1346
KINGSTON CC	GAS	--	715	715	715	715	715	715	715	715	715
KINGSTON AERO	GAS	--	848	848	848	848	848	848	848	848	848
NEW CALEDONIA	GAS	515	515	515	515	515	515	515	515	515	515
LAGOON CREEK	GAS	--	345	345	345	345	345	345	345	345	345

1. Coal Extension plans are likely to change in the SERTP v2 models. The table above reflects what was modeled in the v1 models.

TVA Balancing Authority Area

TVA – Generation Assumptions Continued

The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
TRIFECTA	SOLAR	--	68	68	68	68	68	68	68	68	68
HILLSBORO III	SOLAR	--	200	200	200	200	200	200	200	200	200
SPRING VALLEY II	SOLAR	--	--	200	200	200	200	200	200	200	200
OKOLONA	SOLAR	--	145	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
TS25-466	SOLAR	--	200	200	200	200	200	200	200	200	200
TS25-512	SOLAR	--	--	200	200	200	200	200	200	200	200
TS25-515	SOLAR	--	66	66	66	66	66	66	66	66	66
TS25-425	SOLAR	--	153	153	153	153	153	153	153	153	153
TS25-510	SOLAR	--	--	--	140	140	140	140	140	140	140

TVA – Generation Assumptions Continued

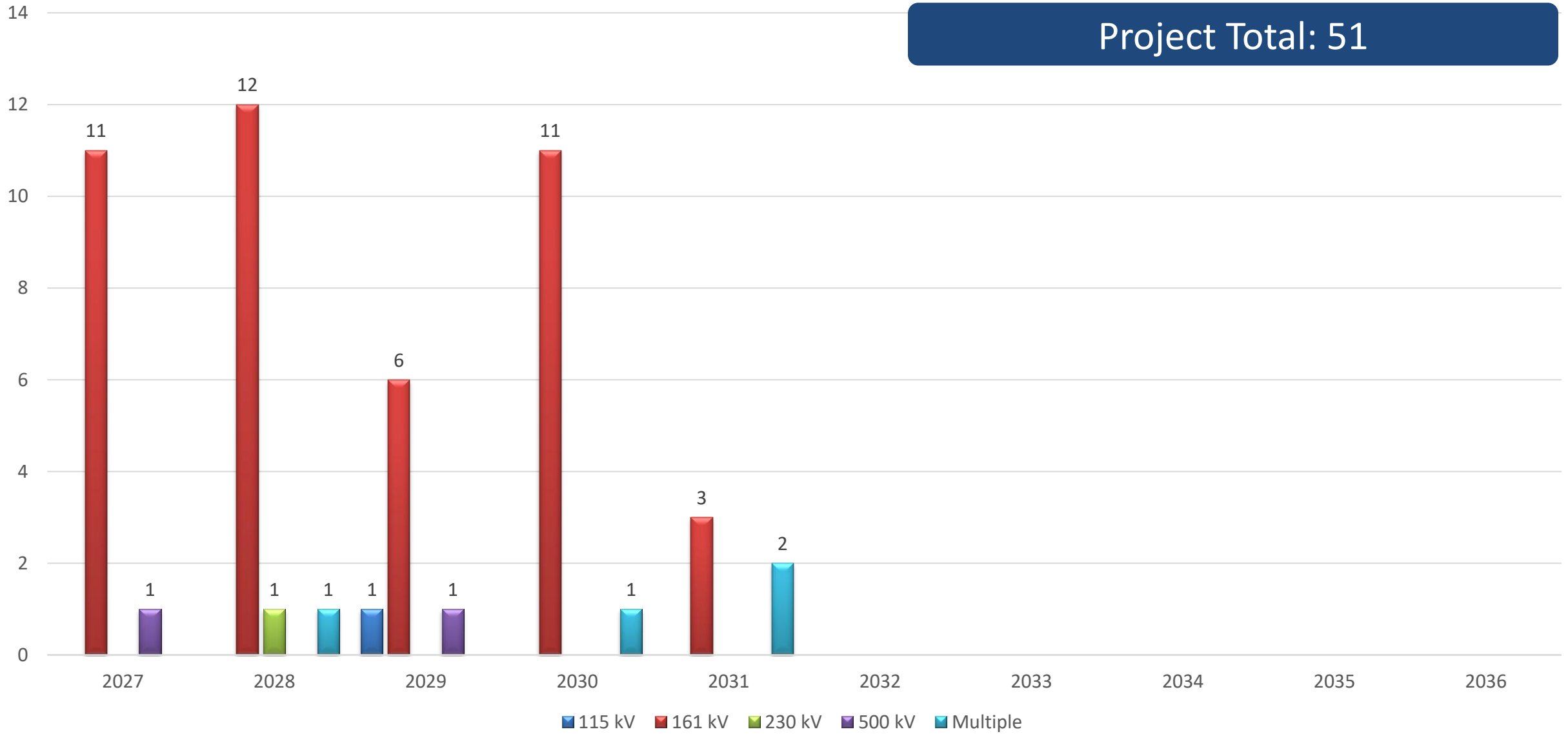
The following table depicts the generation assumptions that change throughout the ten-year planning horizon for the 2026 SERTP Process. The years shown represent Summer Peak conditions.

SITE	FUEL TYPE	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
TS25-514	BESS	--	--	200	200	200	200	200	200	200	200
TS25-600	BESS	--	200	200	200	200	200	200	200	200	200
TS25-429	BESS	--	200	200	200	200	200	200	200	200	200
TS25-587	BESS	--	--	225	225	225	225	225	225	225	225

Southeastern Regional TRANSMISSION PLANNING

TVA Project Summary

Project Total: 51



TVA Balancing Authority Area

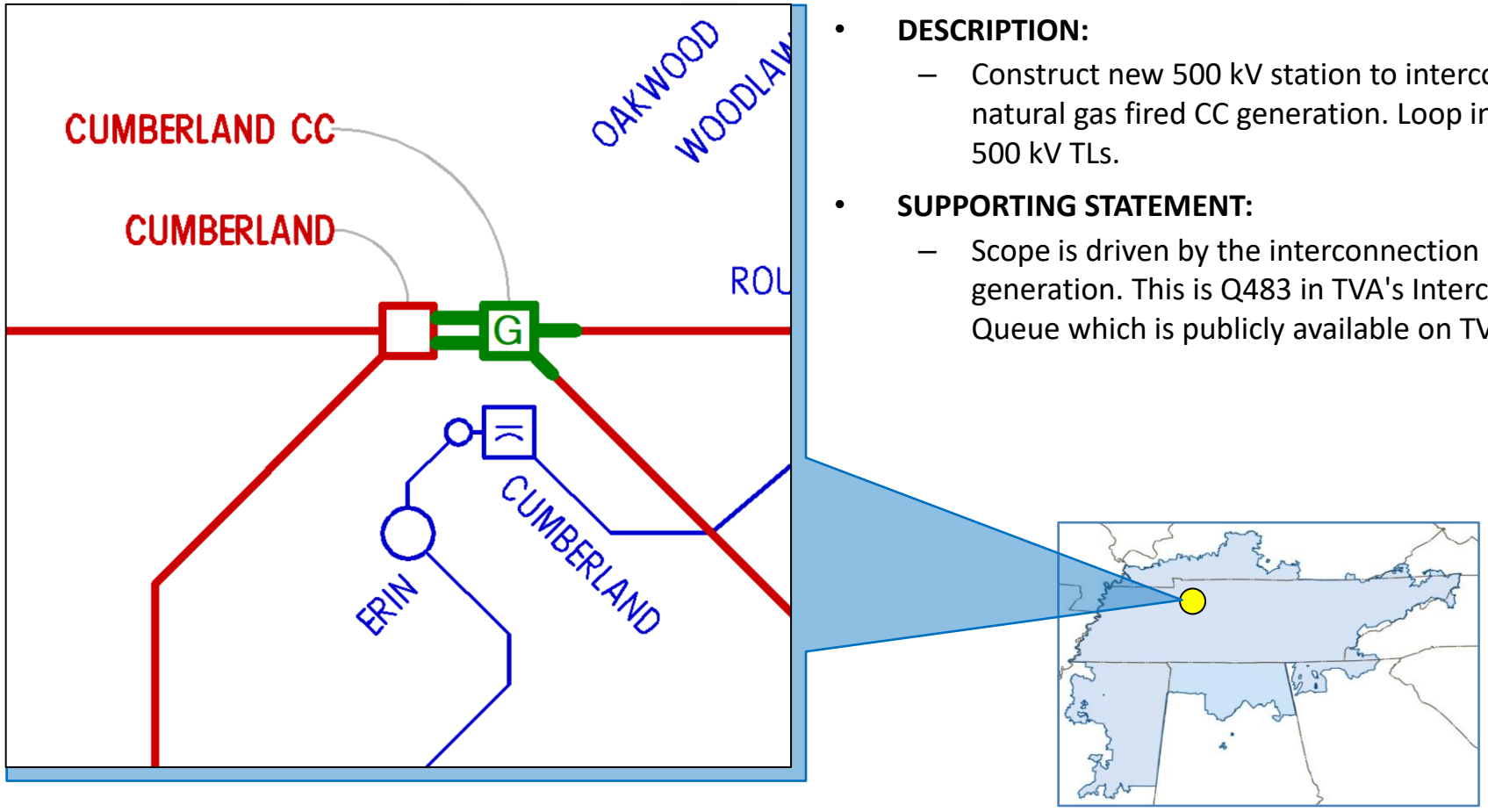
Preliminary Transmission Expansion Plan

TVA Balancing Authority Area

TVA

• **2027**

CUMBERLAND CC GENERATION INTERCONNECTION



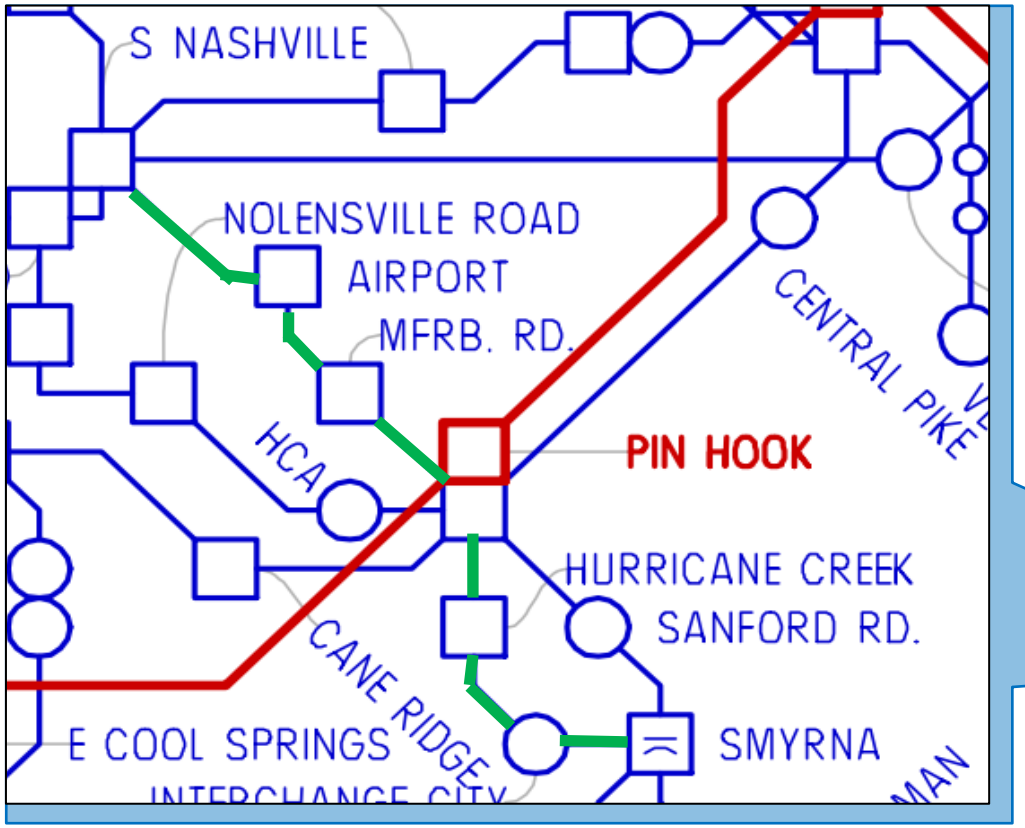
- **DESCRIPTION:**
  - Construct new 500 kV station to interconnect new natural gas fired CC generation. Loop in two nearby 500 kV TLs.
- **SUPPORTING STATEMENT:**
  - Scope is driven by the interconnection of new generation. This is Q483 in TVA's Interconnection Queue which is publicly available on TVA's OASIS.

TVA Balancing Authority Area

TVA

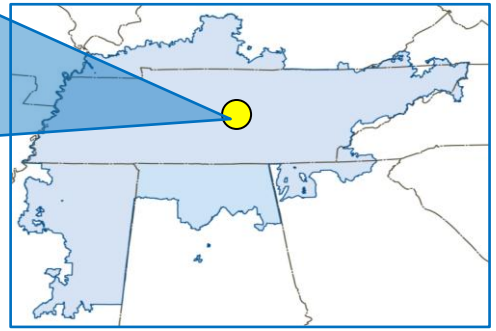
- **2029**

South Nashville - Smyrna 161kV TL



- **DESCRIPTION:**
  - TVA will reconductor and install OPGW on the following transmission lines: South Nashville - Airport 161kV TL, Airport - Murfreesboro Rd 161kV TL, Murfreesboro Rd - Pin Hook 161kV TL, Pin Hook - Hurricane Creek 161kV TL, Hurricane Creek - Smyrna 161kV TL.

- **SUPPORTING STATEMENT:**
  - Additional thermal capacity is needed in area under contingency.

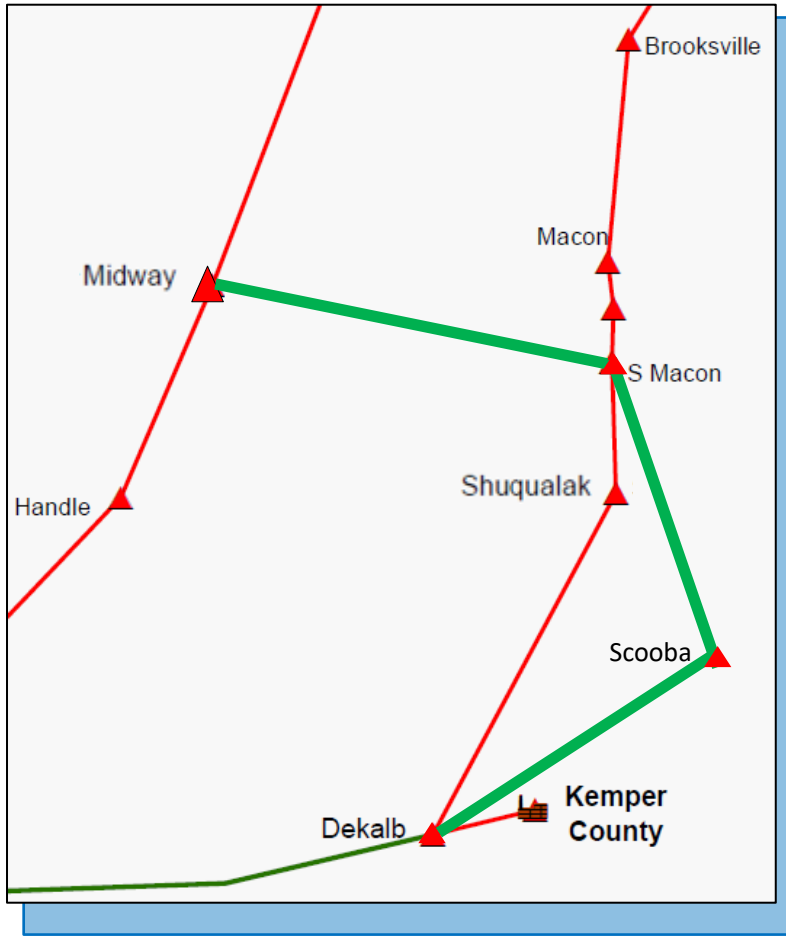


TVA Balancing Authority Area

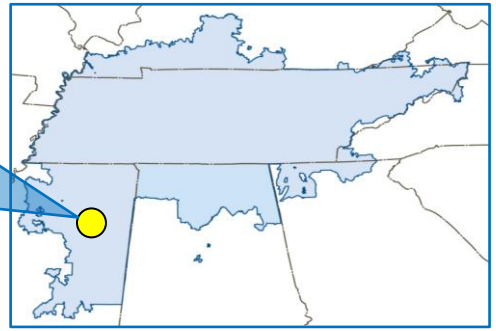
TVA

- **2029**

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.

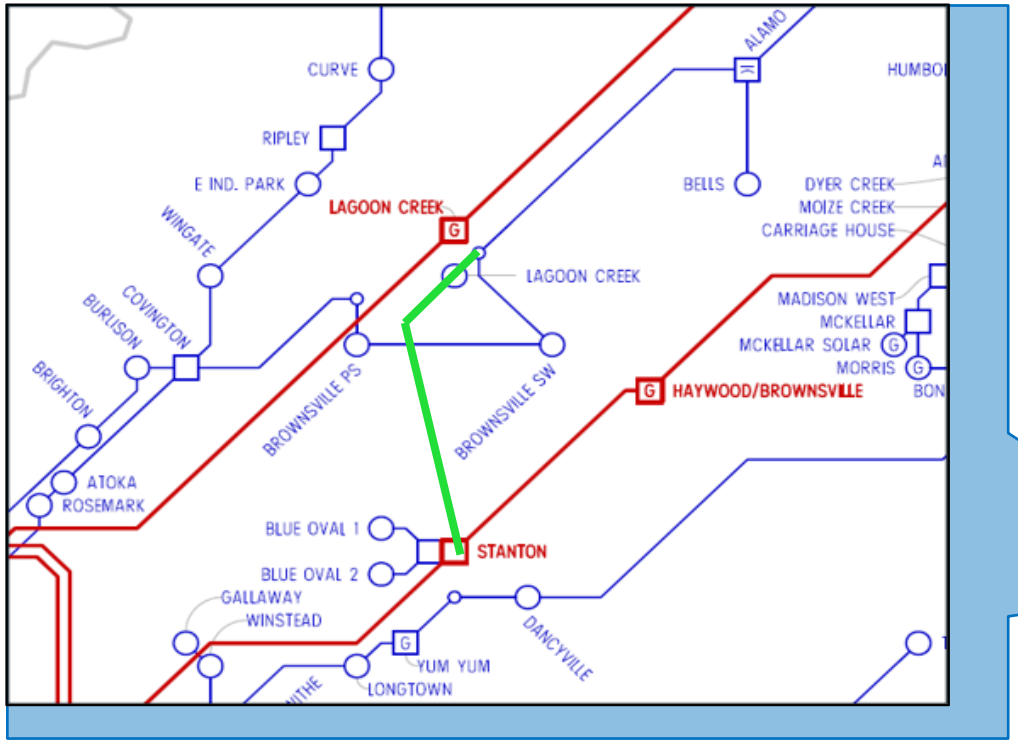


TVA Balancing Authority Area

TVA

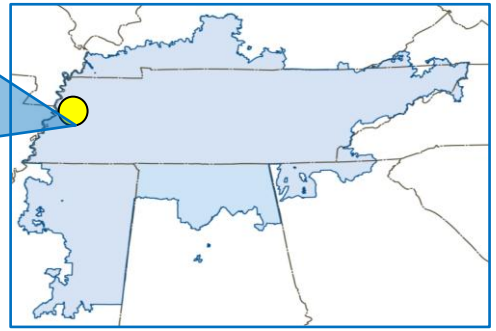
- **2030**

Lagoon Creek CT



- **DESCRIPTION:**
  - Construct a new 500kV station to interconnect new combined cycle generation. Connect to existing 500kv TL. Build ~22 miles of new 500 kV TL from Lagoon Creek to Stanton.

- **SUPPORTING STATEMENT:**
  - Scope is driven by the interconnection of new generation. This is Q624 in TVA's Interconnection Queue which is publicly available on TVA's OASIS.

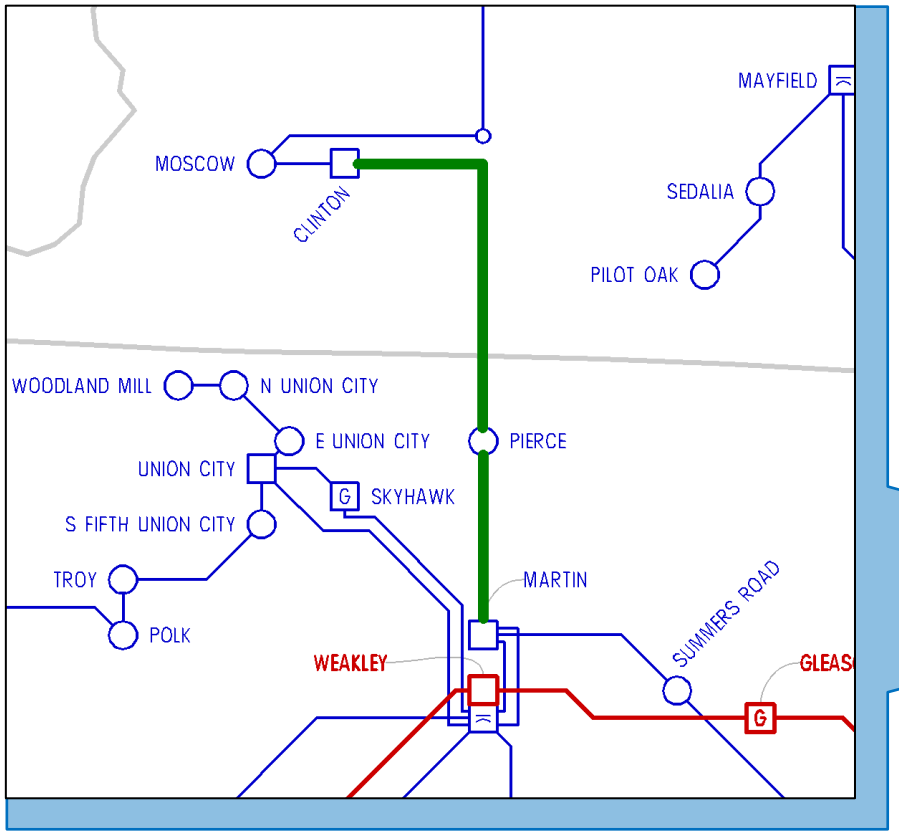


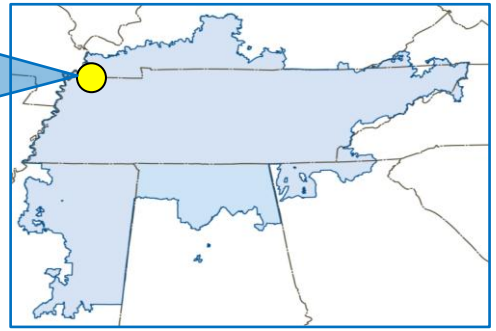
TVA Balancing Authority Area

TVA

- **2030**

CLINTON - MARTIN 161 KV RECONDUCTOR





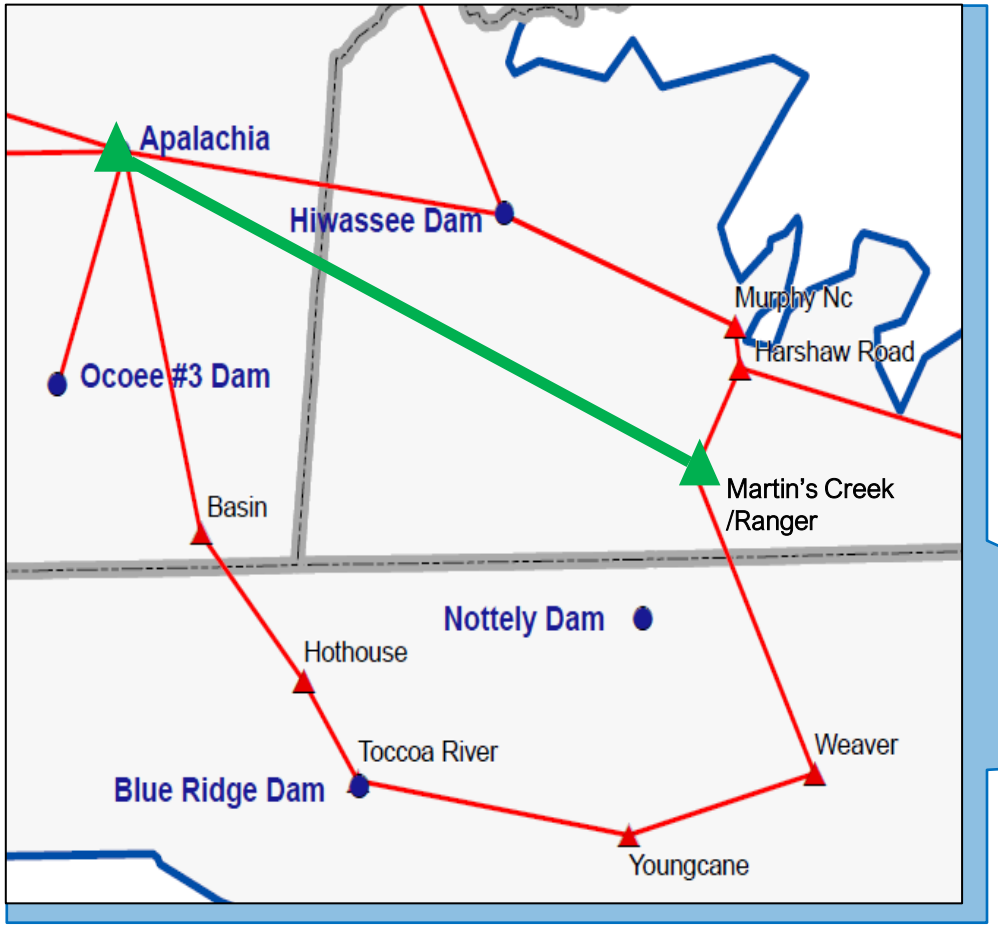
- **DESCRIPTION:**
  - TVA to reconductor Clinton-Martin 161 kV TL.
- **SUPPORTING STATEMENT:**
  - Clinton-Martin was originally constructed in 1952. The original conductor is near end of life. Planning has identified a potential future overload.

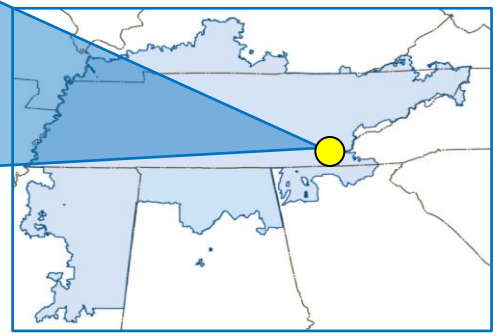
TVA Balancing Authority Area

TVA

- **2030**

APALACHIA AREA IMPROVEMENT PLAN





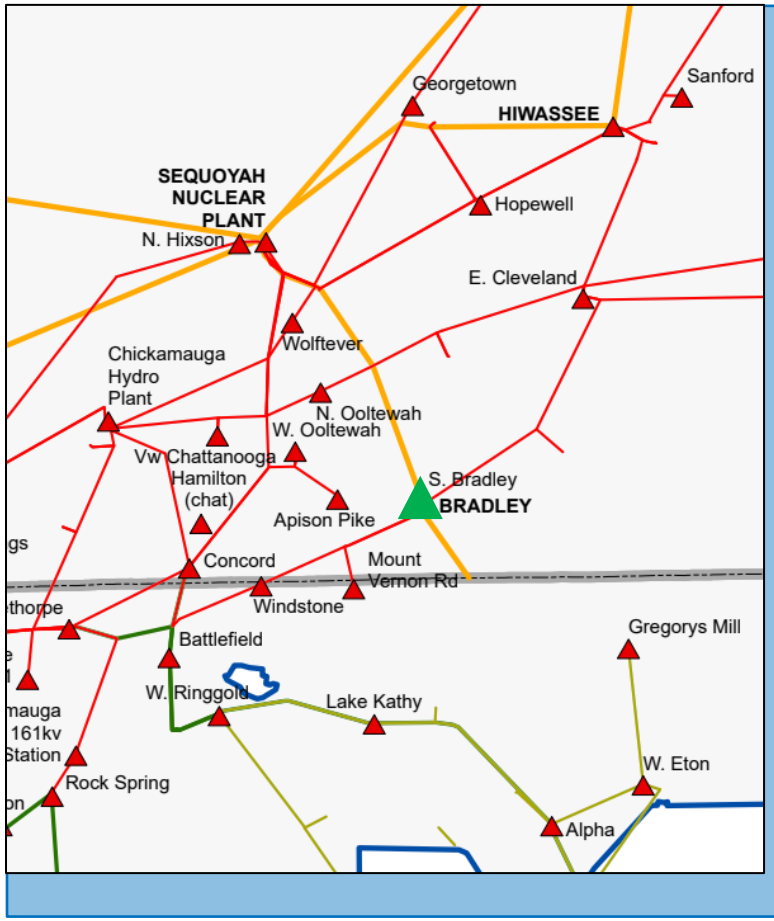
- **DESCRIPTION:**
  - Construct Martin's Creek 161 kV substation. Construct approximately 25 miles of new TL from Apalachia 161 kV substation to Ranger 161 kV switching station.
- **SUPPORTING STATEMENT:**
  - The Apalachia - Basin 161 kV transmission line overloads under contingency.

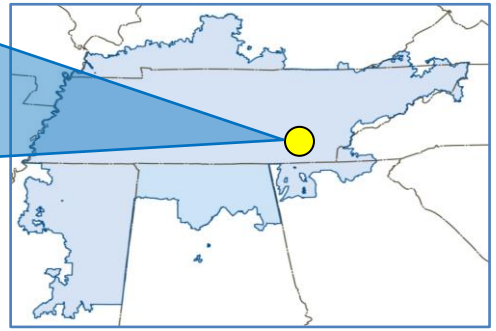
TVA Balancing Authority Area

TVA

- **2031**

BRADLEY 500 KV SWITCH HOUSE





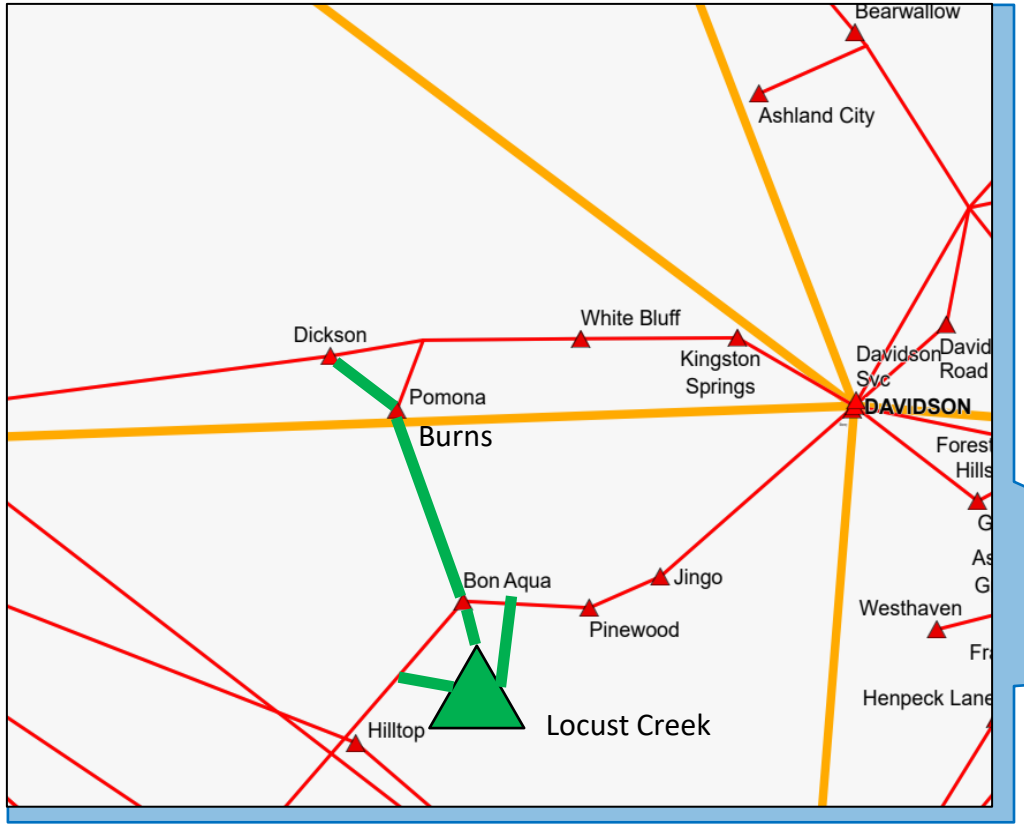
- **DESCRIPTION:**
  - Construct a new 500 kV switch house.
- **SUPPORTING STATEMENT:**
  - Additional thermal capacity and voltage support is needed in the Bradley County, TN area under contingency.

TVA Balancing Authority Area

TVA

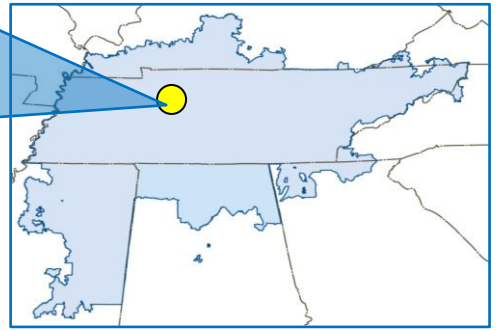
• **2031**

DICKSON 161 KV AREA IMPROVEMENT



- **DESCRIPTION:**
  - Construct new Locust Creek 161 kV substation. Construct approximately 9.5 miles of new 161 kV transmission line from Bon Aqua to Burns. Rebuild approximately 8 miles of 161 kV transmission line between Dickson and Ponoma tap. Build a new switch house at Dickson.

- **SUPPORTING STATEMENT:**
  - Voltage support is needed in the Dickson, TN area under contingency.



Regional Analyses Update

- SERTP Sponsors are currently developing a list of potential alternative transmission projects to evaluate during the 2026 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.

- There were no projects submitted to the SERTP emial prior to today's meeting. Now is the time for Stakeholders to share if an alternative is being proposed at the Q2 Meeting.

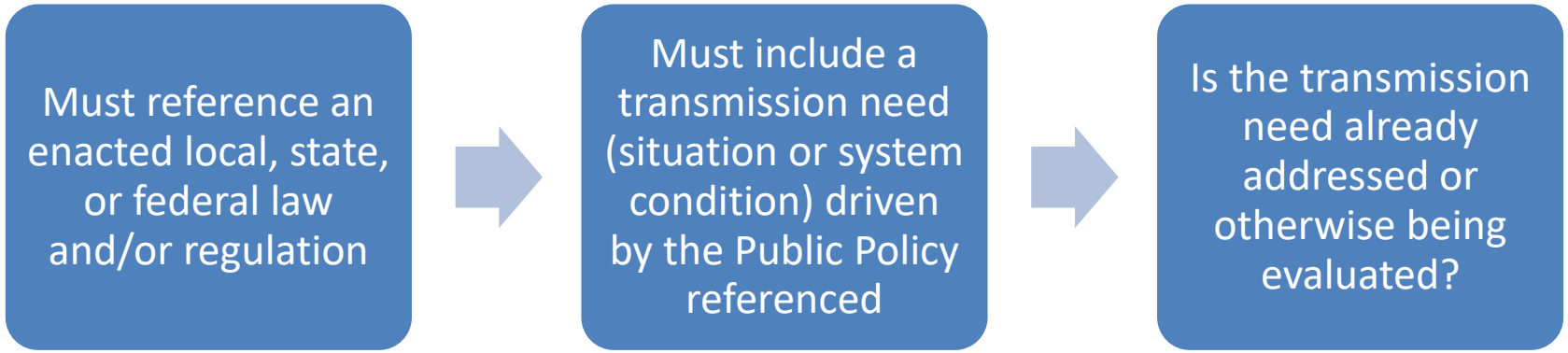
SERTP

Public Policy Requirements Stakeholder Proposal and Evaluation

Transmission Needs Driven by Public Policy Requirements

Transmission Needs Driven by Public Policy Requirements (PPRs)

- This year, SERTP received seven (7) submissions from two (2) stakeholders for transmission needs driven by Public Policy Requirements. Submissions were related to the North Carolina Carbon Plan, One Big Beautiful Bill , SERTP Sponsor IRP and CPCN Orders and their governing state and federal public policies, various state sales tax and use law, a suite of federal Executive Orders (EO) under President Trump, and one State of Tennessee EO.
- PPR Evaluation Criteria



Transmission Needs Driven by Public Policy Requirements

Transmission Needs Driven by Public Policy Requirements (PPRs)

- Submissions proposed public policy requirements resulting from five (5) federal Executive Orders (EO) and one (1) state Executive Order. 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 referencing federal of state EOs do not meet FERC's requirements.

- Submissions proposed public policy requirements from the One, Big, Beautiful Bill (OBBB), specifically the effects of SERTP Sponsor's use of battery storage from amendments to Section 48E(e) and the Section(C). The referenced section of the OBBB pertains to clean electricity investment tax credits. The OBBB does not require or direct transmission owners or providers to take specific action related to utilizing tax credits for energy storage; therefore, no transmission needs for this proposed PPR have been identified for further evaluation in the 2026 transmission planning cycle. The SERTP Sponsors would clarify that tax incentives on generation resources would be accounted for in our State Public Service/Utility Commission or Board of Directors IRP or similar processes and would inform the SERTP 10-Year Transmission Plan as all necessary information becomes available.

Transmission Needs Driven by Public Policy Requirements

Transmission Needs Driven by Public Policy Requirements (PPRs)

- Submissions proposed public policy requirements for transmission owners or providers to include generator additions from state-approved Certificates of Public Convenience and Necessity (CPCN) Orders or TVA Board-approved plans in the SERTP 10-Year Regional Transmission Plan based on State statutory obligations for utilities to file/submit CPCNs and the TVA Act. Obligations for utilities to file/submit State CPCNs do not drive transmission needs; the statutes identified merely create a filing obligation, or for some sponsors create a planning obligation, and do not direct any particular generation in any particular location that that would impact transmission needs. Resources identified in a CPCN Order will be incorporated into the SERTP 10-Year Transmission Plan as determined to be appropriate by the individual SERTP Sponsors in accordance with their transmission planning procedures. Please see the March 19, 2024, interactive training presented at the SERTP meeting for more information on model development.

Transmission Needs Driven by Public Policy Requirements

Transmission Needs Driven by Public Policy Requirements (PPRs)

- Submissions proposed public policy requirements from state laws requiring utilities to file/submit Integrated Resource Plans (IRPs). The submission also proposed public policy requirements from Tennessee laws that impact the TVA IRP process including the National Environmental Policy Act and the TVA Act. Obligations to file/submit Integrated Resource Plans for review do not create transmission needs; the statutes and regulations merely create a filing obligation, or for some sponsors create a planning obligation, and do not direct any particular generation in any particular location that that would impact transmission needs. Resources identified through the IRP process are incorporated into the SERTP 10-Year Transmission Plan as determined to be appropriate by the individual SERTP Sponsors in accordance with their transmission planning procedures. Please see the March 19, 2024, interactive training presented at the SERTP meeting for more information on model development.

- Submissions proposed public policy requirements from state sales and use tax laws within the SERTP region. The public policies referenced in this submission do not drive or direct transmission needs; therefore, no transmission needs for this proposed PPR have been identified for further evaluation in the 2026 transmission planning cycle.

Transmission Needs Driven by Public Policy Requirements

Transmission Needs Driven by Public Policy Requirements (PPRs)

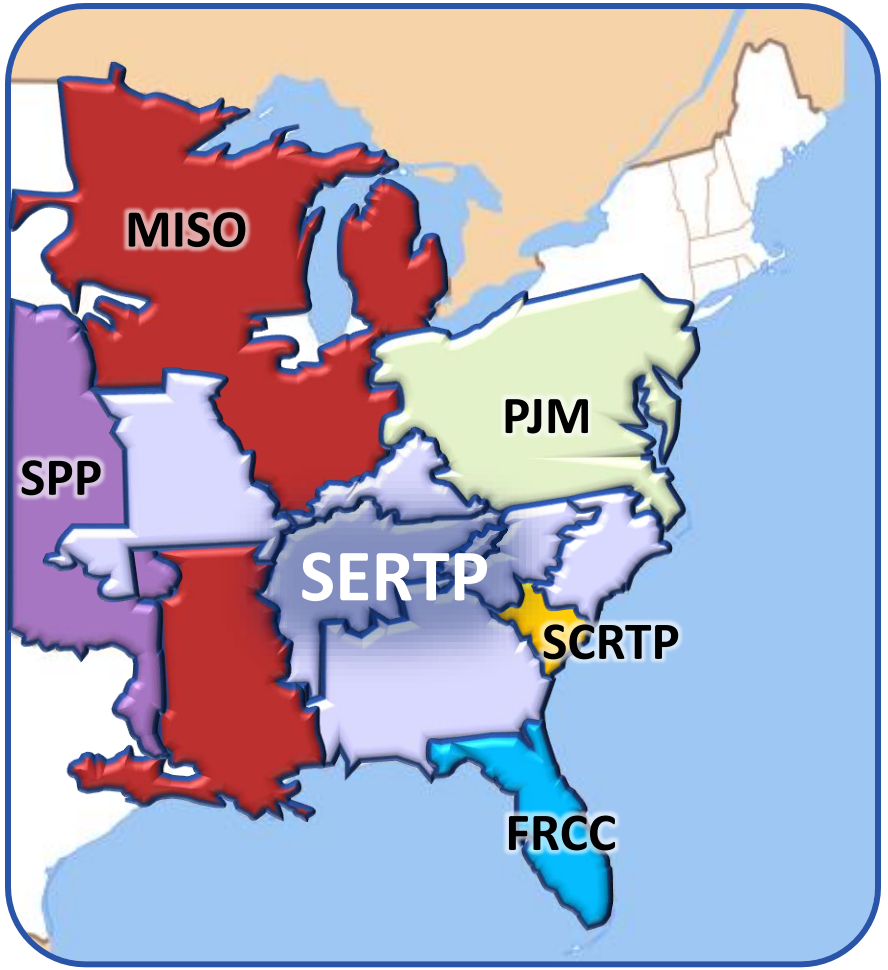
- Submissions proposed public policy requirements from carbon reduction requirements in North Carolina Session Law 2021-165 and SB 266. Under SB 266, the interim carbon reduction target has been eliminated. The remaining net neutrality by 2050 target does not drive regional transmission needs. Duke Energy's local transmission plans adapt to changing laws and given the inclusion of the local transmission plan in the SERTP process, no additional transmission needs for the proposed PPR have been identified for further evaluation in the 2026 transmission planning cycle.

The 2026 SERTP PPR Explanations are available on the SERTP website – 2026 PPR Explanations

SERTP

Miscellaneous Updates

Interregional Update



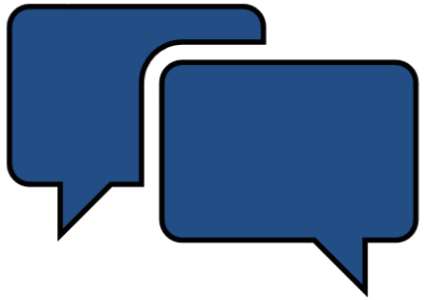
Interregional Update

- 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.

Next Meeting Activities

- **2026 SERTP 3rd Quarter Meeting**
  - **Date: September 22nd, 2026**
  - **Held Virtual**
  - **Purpose:**
    - Preliminary Results of the Economic Studies
    - Stakeholder Input & Feedback Regarding the Study Results
    - Discuss Previous Stakeholder Input on the Expansion Plan

- **2026 SERTP 4th Quarter Meeting**
  - **Date: December 15th, 2026**
  - **Hosted by MEAG in Atlanta, GA**
  - **Purpose:**
    - Final Results of the Economic Studies
    - Regional Transmission Plan
    - Regional Analyses
    - Stakeholder Input on the 2027 Transmission Model Input Assumptions



Questions?

www.southeasternrtp.com

email: southeasternrtp@southernco.com

APPENDIX A

Regional Transmission Plan Presented in the 2025 SERTP 4th Quarter Meeting or previously located in Appendix A

AECI Balancing Authority Area

Regional Transmission Expansion Plan

* AECI has no projects that meet for Appendix A in the 2026 SERTP Process.

DEC Balancing Authority Area

DUKE ENERGY CAROLINAS Balancing Authority Area

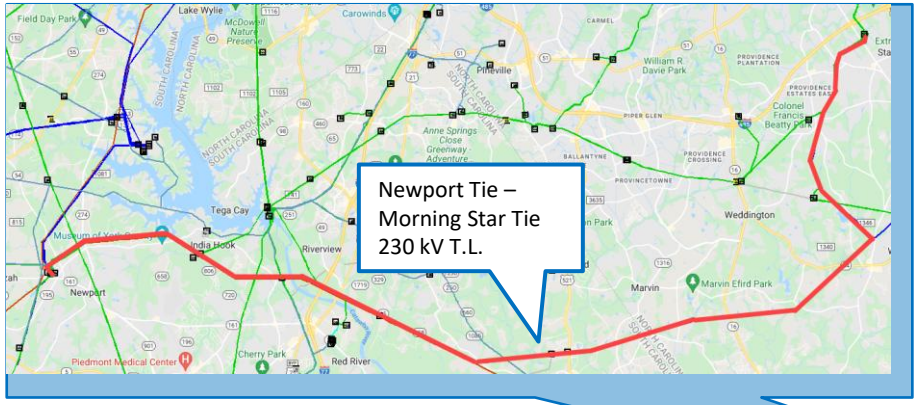
Regional Transmission Expansion Plan

DEC Balancing Authority Area

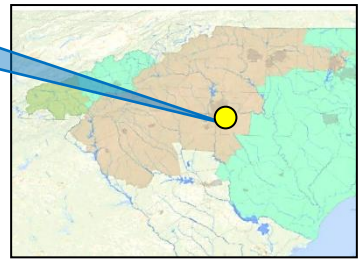
DUKE ENERGY CAROLINAS

• **2033**

NEWPORT TIE – MORNING STAR TIE 230 KV TRANSMISSION LINE



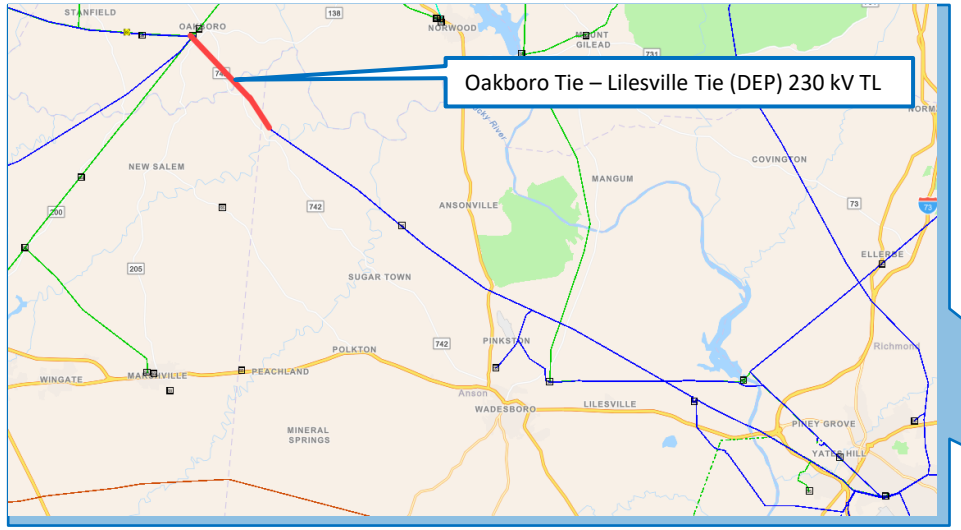
- **DESCRIPTION:**
  - Add a second circuit to the existing Newport Tie – Morning Star Tie 230 kV Transmission Line. Conductor will be 954 ACSR at 120°C.
- **SUPPORTING STATEMENT:**
  - A number of contingencies on the Duke Energy Carolinas 230 kV transmission system can cause thermal overloads on the Newport Tie – Morning Star Tie 230 kV T.L.



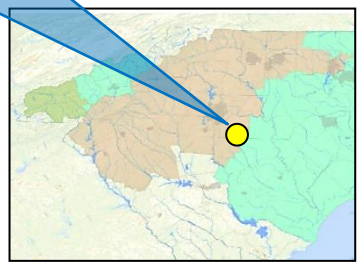
DEC Balancing Authority Area

DUKE ENERGY CAROLINAS • 2027

OAKBORO TIE – LILESVILLE TIE (DEP) 230 KV TRANSMISSION LINE



- **DESCRIPTION:**
  - Rebuild 5.13 miles (Oakboro to DEP change of ownership) of the Oakboro Tie – Lilesville Tie (DEP) 230 kV Transmission Line with bundled 1272 ACSR at 120°C.
- **SUPPORTING STATEMENT:**
  - Various generator interconnection studies have shown the need to upgrade this line. This upgrade is needed to enable generation consistent with the approved IRP.
  - Included in the Red Zone 2.0 list of projects.



DEP Balancing Authority Areas

DUKE ENERGY PROGRESS EAST Balancing Authority Area

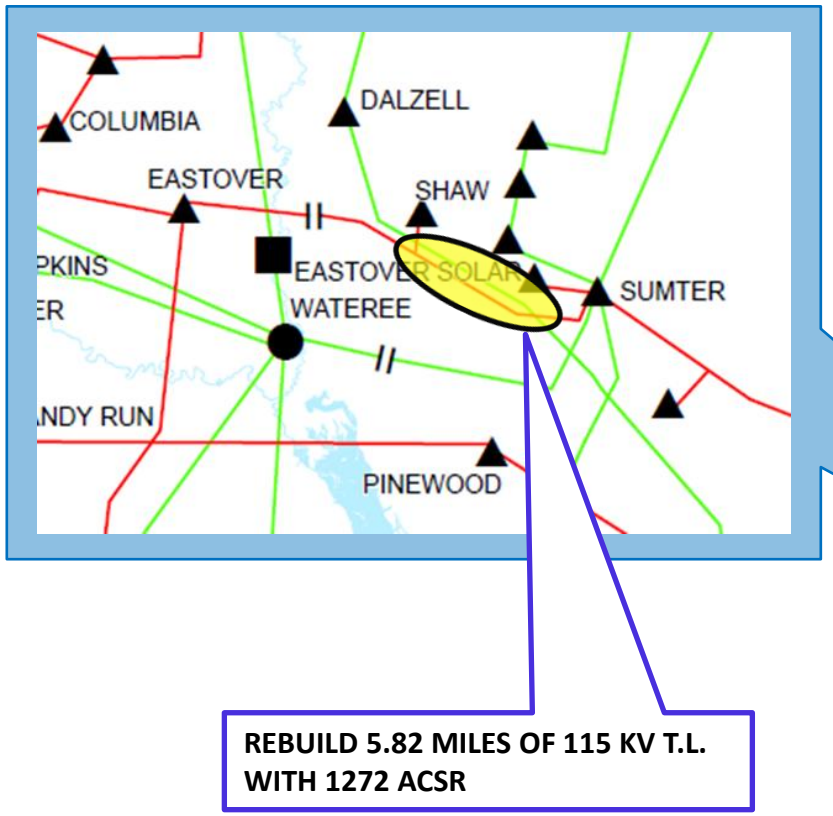
Regional Transmission Expansion Plan

DEP Balancing Authority Areas

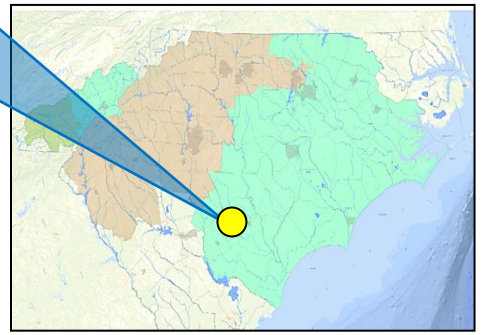
DUKE ENERGY PROGRESS EAST

• **2027**

SUMTER – DESC EASTOVER 115 KV LINE, REBUILD GOLD KIST - KINGS HWY



- **DESCRIPTION:**
  - Rebuild 5.82 miles, the 397.5 ACSR portion of Sumter Gold Kist Tap - Sumter Kings Hwy, to 1272 ACSR 212°F.
- **SUPPORTING STATEMENT:**
  - Multiple contingencies cause the Gold Kist - Kings Hwy section of the Sumter-Eastover 115 kV line to overload.

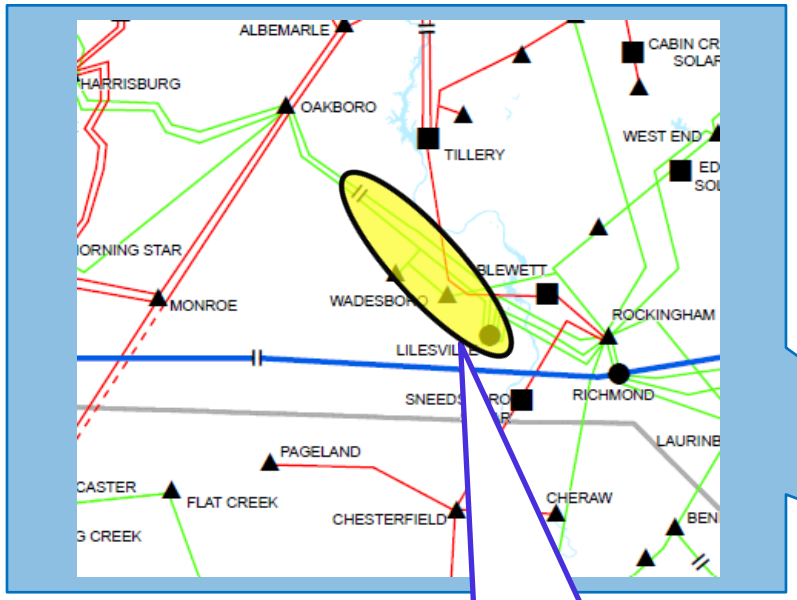


DEP Balancing Authority Areas

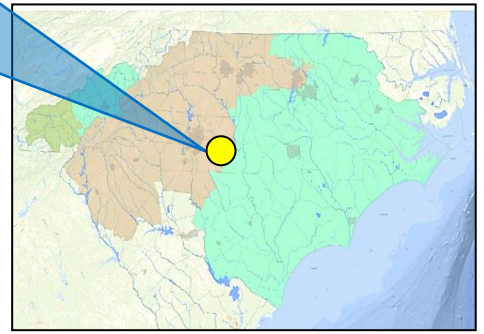
DUKE ENERGY PROGRESS EAST

• **2028**

LILESVILLE – OAKBORO (DEC TIE) 230 KV BLACK AND WHITE LINES, REBUILD



- **DESCRIPTION:**
  - Rebuild the DEP portion of Lilesville - Oakboro 230 kV Black and White lines to 6-1272 ACSR 212°F conductor, 29.7 miles each line.
- **SUPPORTING STATEMENT:**
  - Various generator interconnection studies have shown the need to upgrade this line. This upgrade is needed to enable generation consistent with the approved IRP.

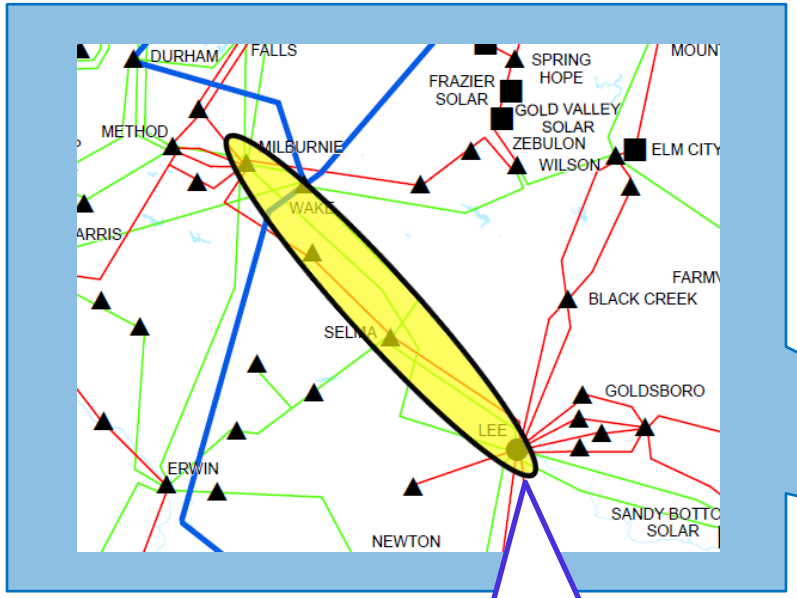


DEP Balancing Authority Areas

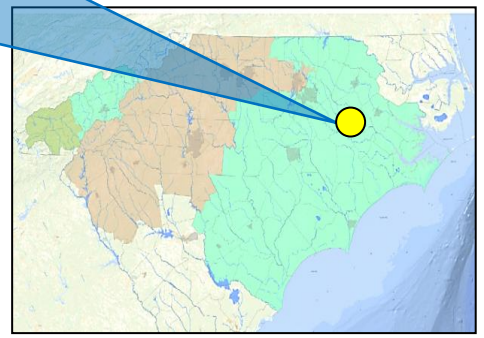
DUKE ENERGY PROGRESS EAST

• **2031**

LEE - MILBURNIE 230 KV TRANSMISSION LINE, REBUILD



- **DESCRIPTION:**
  - Rebuild the entire Lee - Milburnie 230 kV transmission line with 954 MCM HS285 ACSS/TW 392°F conductor (40.2 miles) and upgrade terminal equipment.
- **SUPPORTING STATEMENT:**
  - Various generator interconnection studies have shown the need to upgrade this line. This upgrade is needed to enable generation consistent with the approved IRP.



DEP Balancing Authority Areas

DUKE ENERGY PROGRESS WEST Balancing Authority Area

Regional Transmission Expansion Plan

* DEP West has no projects that meet for Appendix A in the 2026 SERTP Process.

LG&E/KU Balancing Authority Area

LG&E/KU Balancing Authority Area

Regional Transmission Expansion Plan

* LG&E/KU has no projects that meet for Appendix A in the 2026 SERTP Process.

SOUTHERN Balancing Authority Area

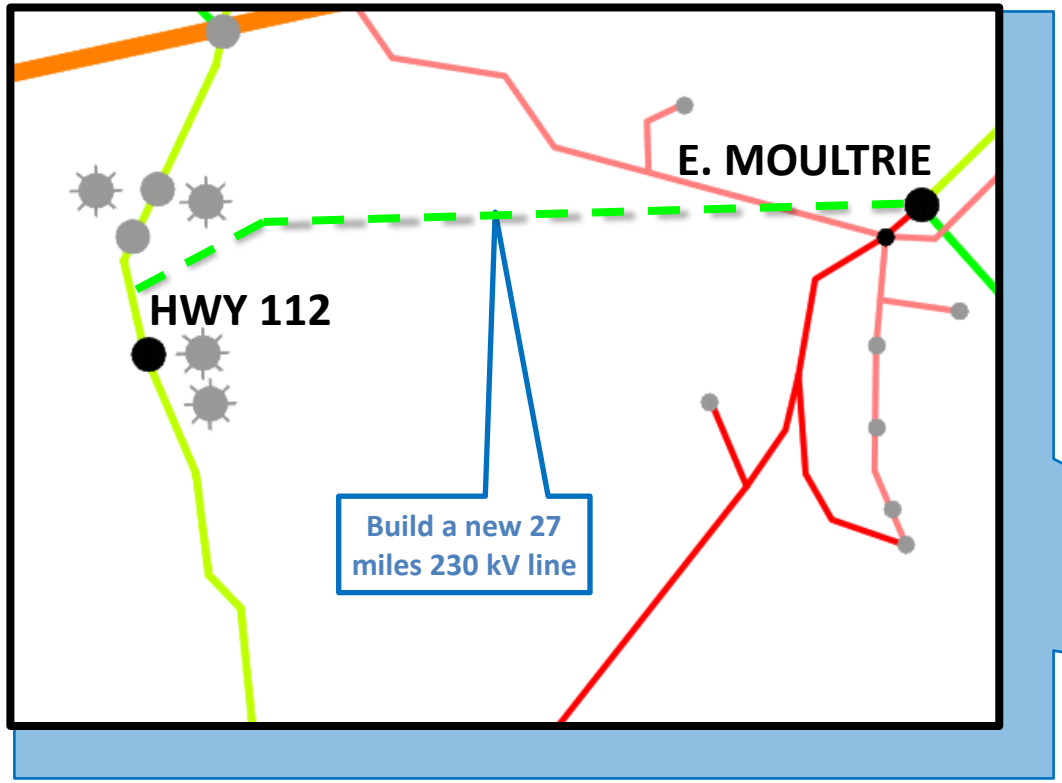
Regional Transmission Expansion Plan

SOUTHERN Balancing Authority Area

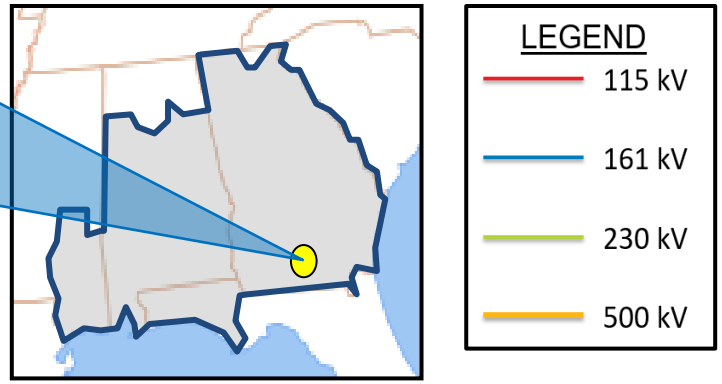
SOUTHERN

• **2027**

GTC: EAST MOULTRIE – HIGHWAY 112 230 KV



- **DESCRIPTION:**
  - Build approximately 27 miles of new 230 kV line between HWY 112 and East Moultrie substations with 160°C 1351 ACSS conductor.
- **SUPPORTING STATEMENT:**
  - This project addresses multiple thermal overloads that occur under contingency.

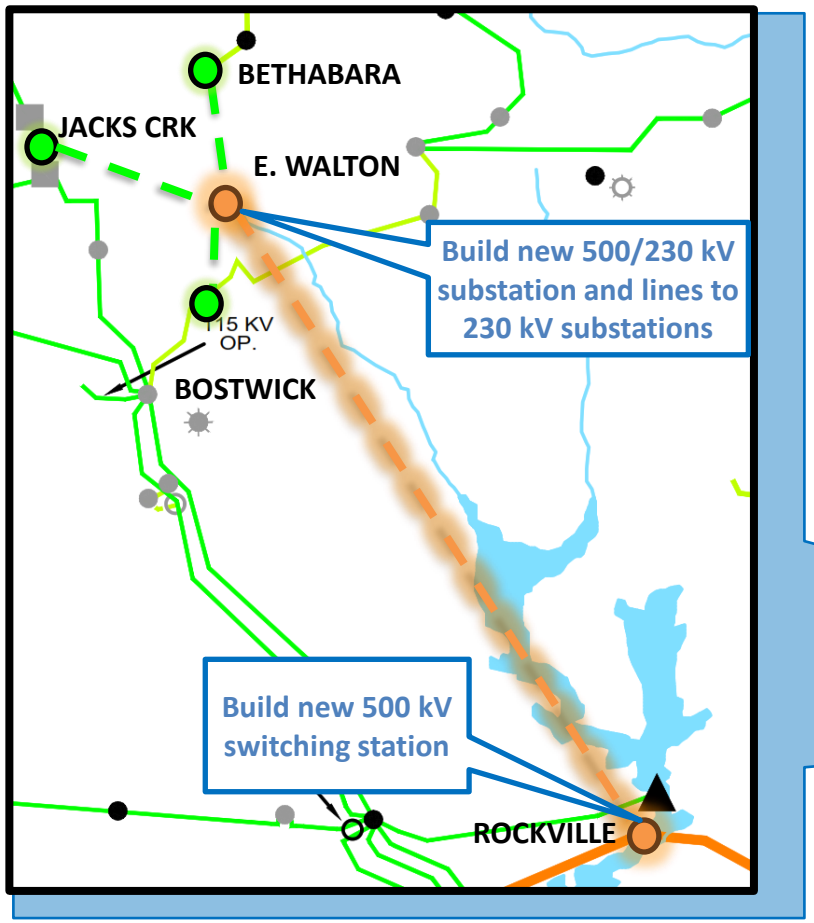


SOUTHERN Balancing Authority Area

SOUTHERN

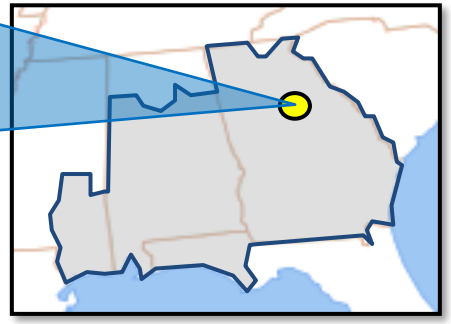
• **2027**

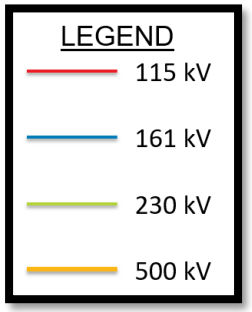
GTC: EAST WALTON 500/230 KV AREA PROJECT



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

- **SUPPORTING STATEMENT:**
  - This project addresses multiple thermal overloads that occur under contingency.



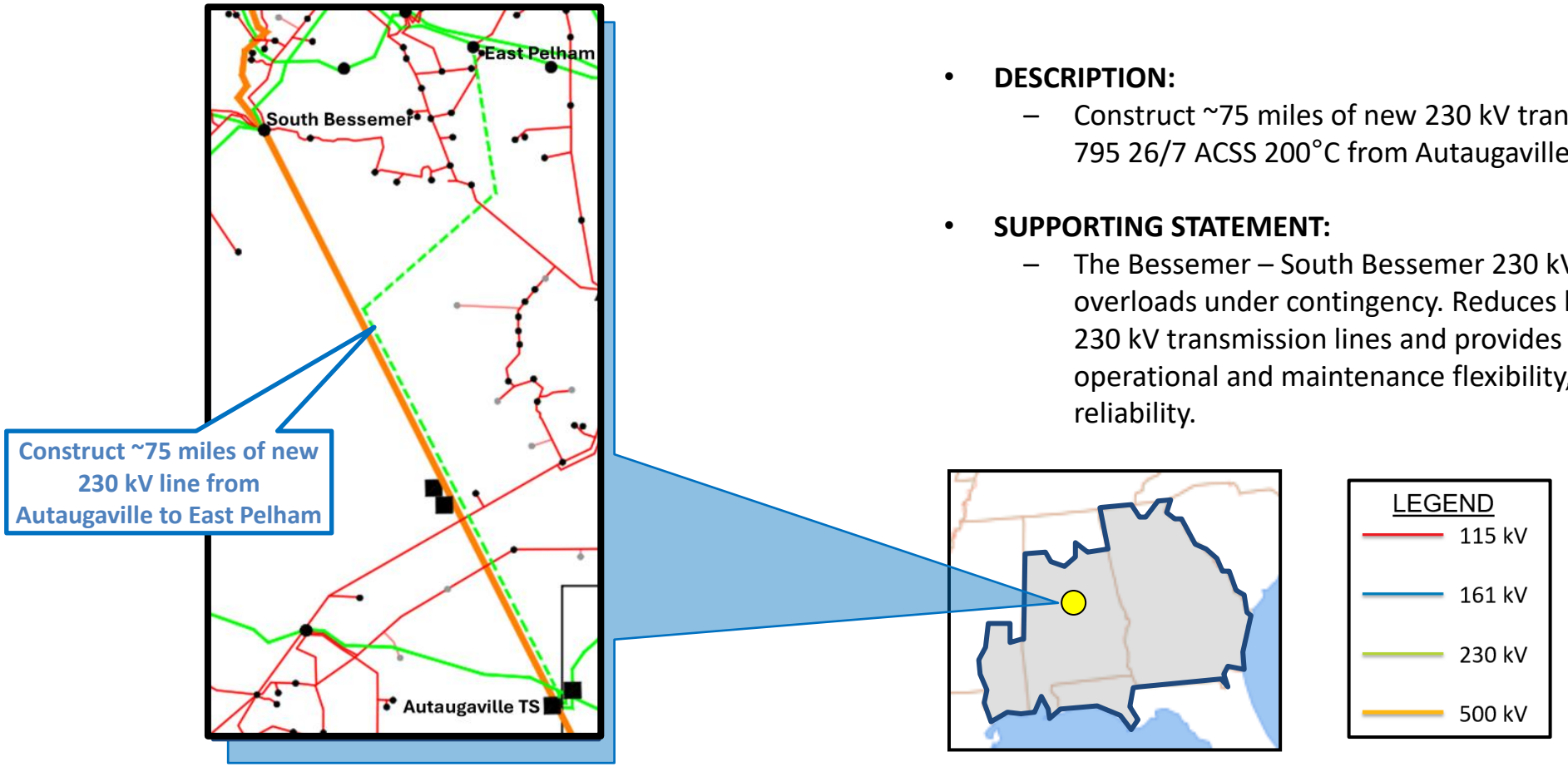


SOUTHERN Balancing Authority Area

SOUTHERN

• **2027**

SOCO: AUTAUGAVILLE – EAST PELHAM NEW 230 KV TRANSMISSION LINE



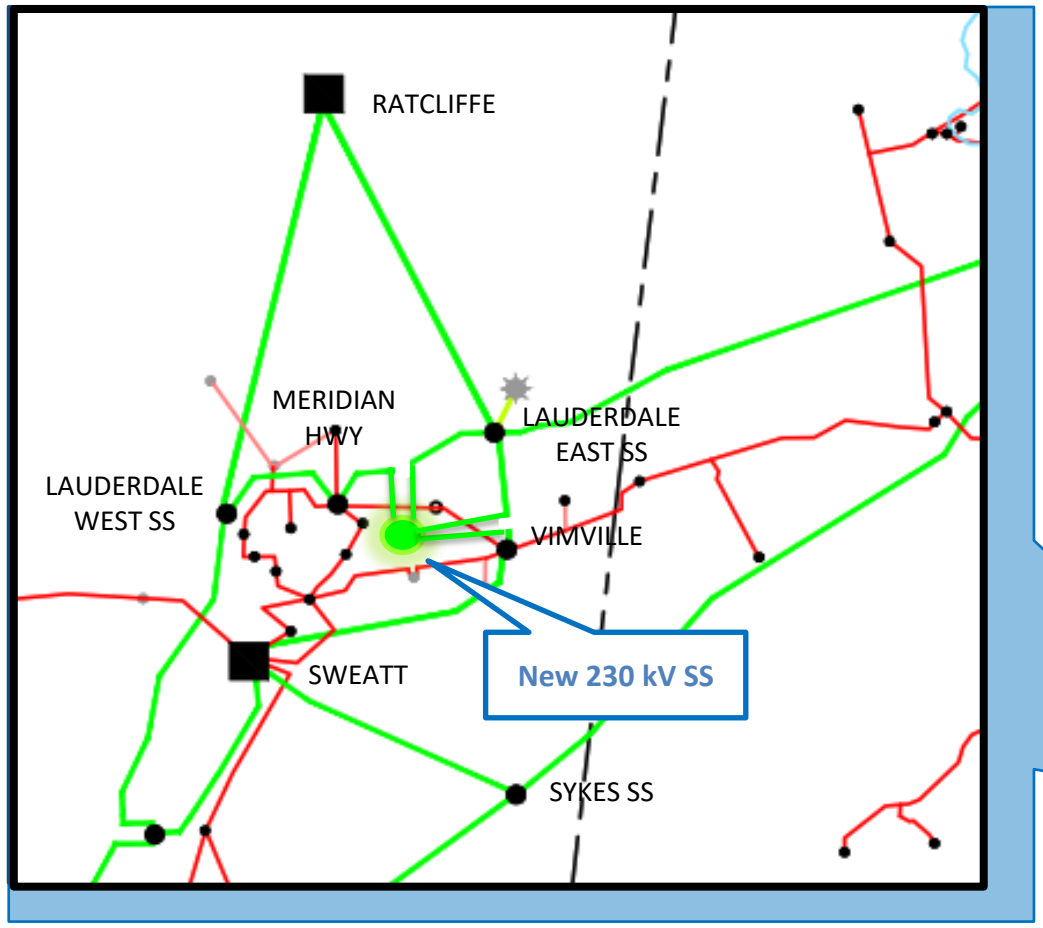
- **DESCRIPTION:**
  - Construct ~75 miles of new 230 kV transmission line bundled 795 26/7 ACSS 200°C from Autaugaville TS to East Pelham TS.
- **SUPPORTING STATEMENT:**
  - The Bessemer – South Bessemer 230 kV transmission line overloads under contingency. Reduces loadings on multiple 230 kV transmission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

SOUTHERN Balancing Authority Area

SOUTHERN

• **2027**

SOCO: MERIDIAN HWY 80 SOUTH 230 KV SWITCHING STATION

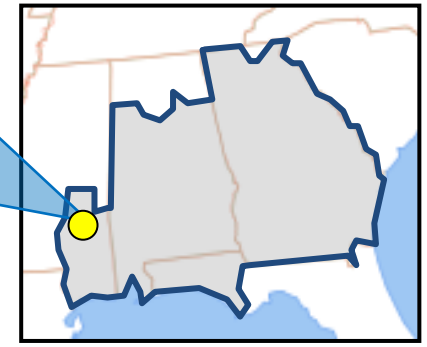


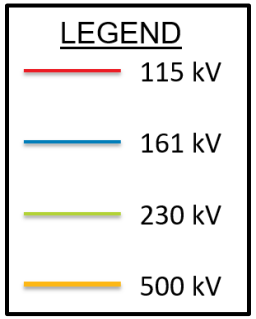
DESCRIPTION:

- Build a new 230 kV substation which will end up looping in the Lauderdale East – Vimville 230 kV TL and the Meridian Northeast – Lauderdale East 230 kV TL.

SUPPORTING STATEMENT:

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



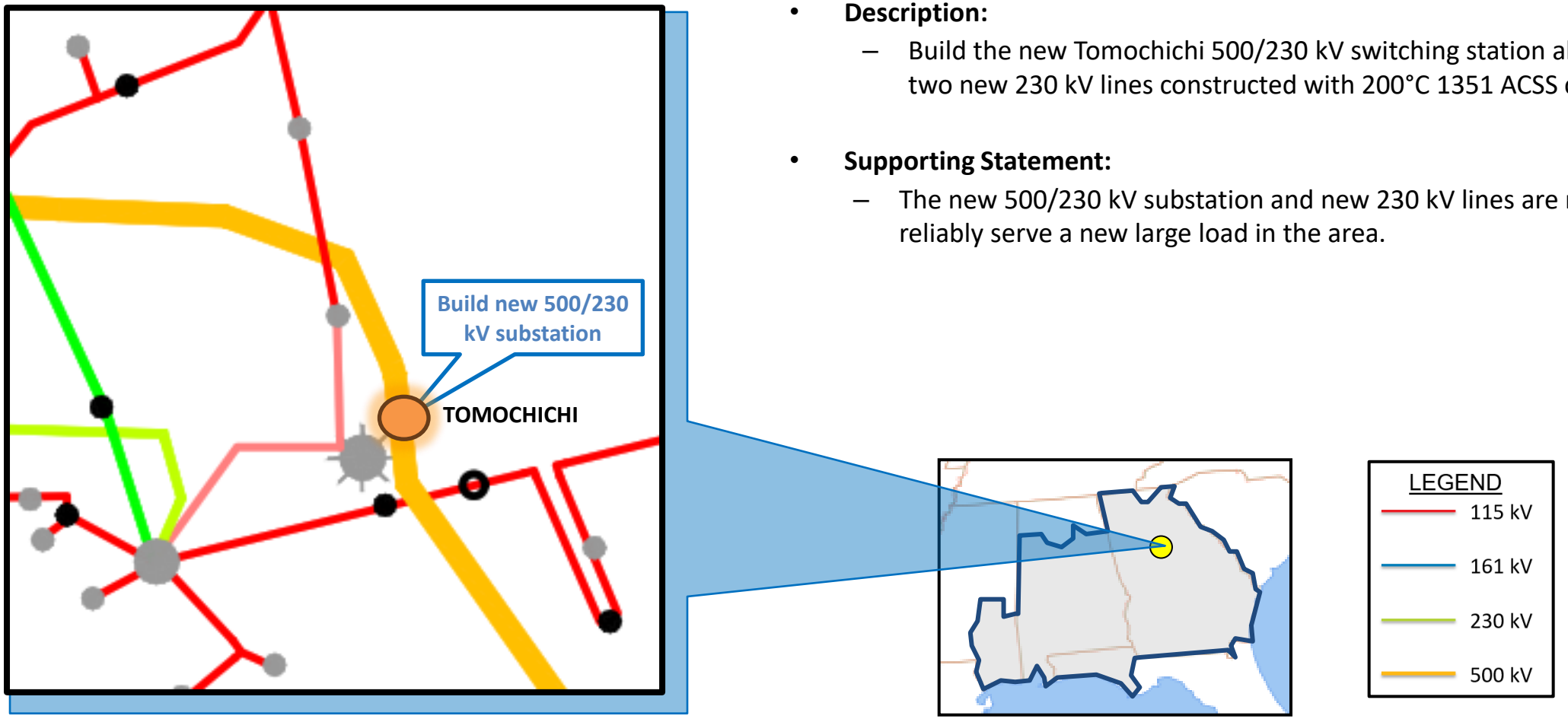


SOUTHERN Balancing Authority Area

SOUTHERN

• **2027**

SOCO: TOMOCHICHI 500/230 KV SUBSTATION



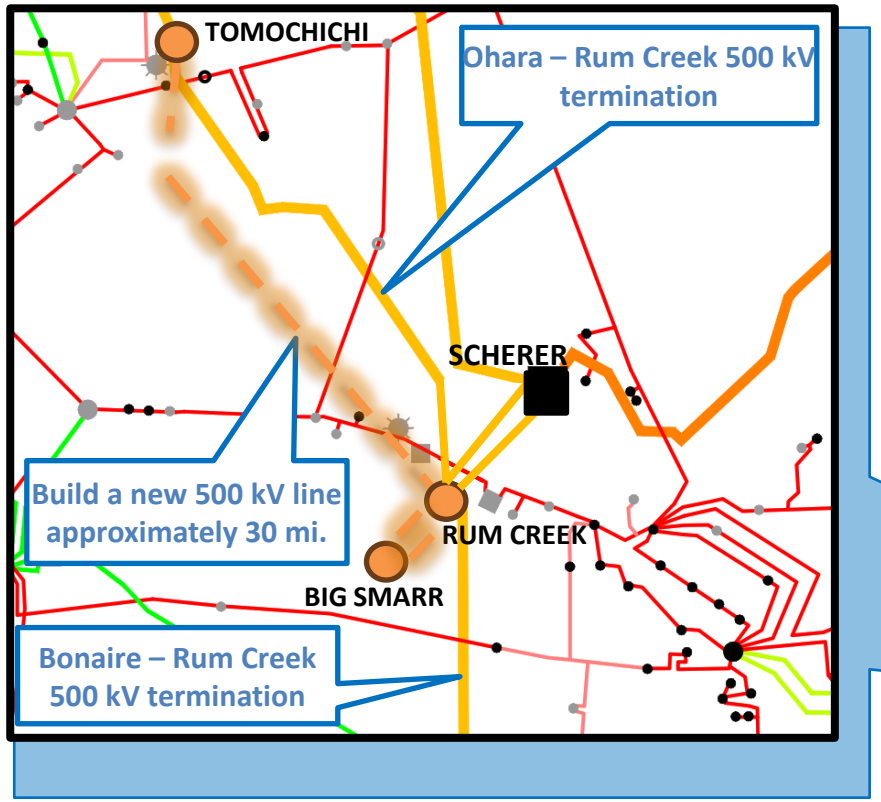
- **Description:**
  - Build the new Tomochichi 500/230 kV switching station along with two new 230 kV lines constructed with 200°C 1351 ACSS conductor.
- **Supporting Statement:**
  - The new 500/230 kV substation and new 230 kV lines are needed to reliably serve a new large load in the area.

SOUTHERN Balancing Authority Area

SOUTHERN

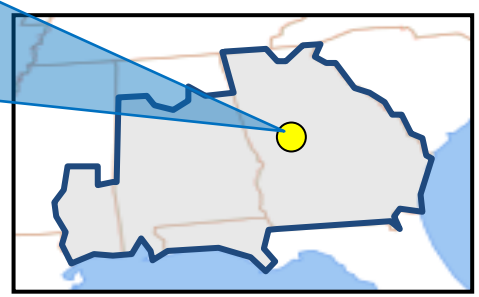
• **2028**

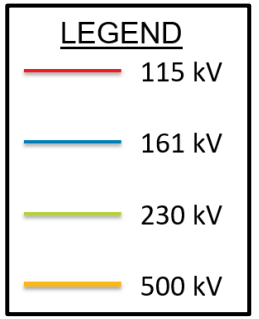
GTC: RUM CREEK 500 KV NEW SWITCHING STATION



- **DESCRIPTION:**
  - Construct the new Rum Creek 500 kV breaker and half switching station. Loop in the existing Bonaire Primary – Scherer and O'Hara – Scherer 500 kV lines. Terminate the new Big Smarr – Rum Creek 500 kV line. Construct the new line using 100°C (3) 1113 ACSR Bluejay conductor.

- **SUPPORTING STATEMENT:**
  - The Bonaire Primary 500/230 kV Bank C and Bonaire Primary – Dorsett 230 kV line overload under contingency. The transmission network improvements are required for a new generating facility in the Central Area.



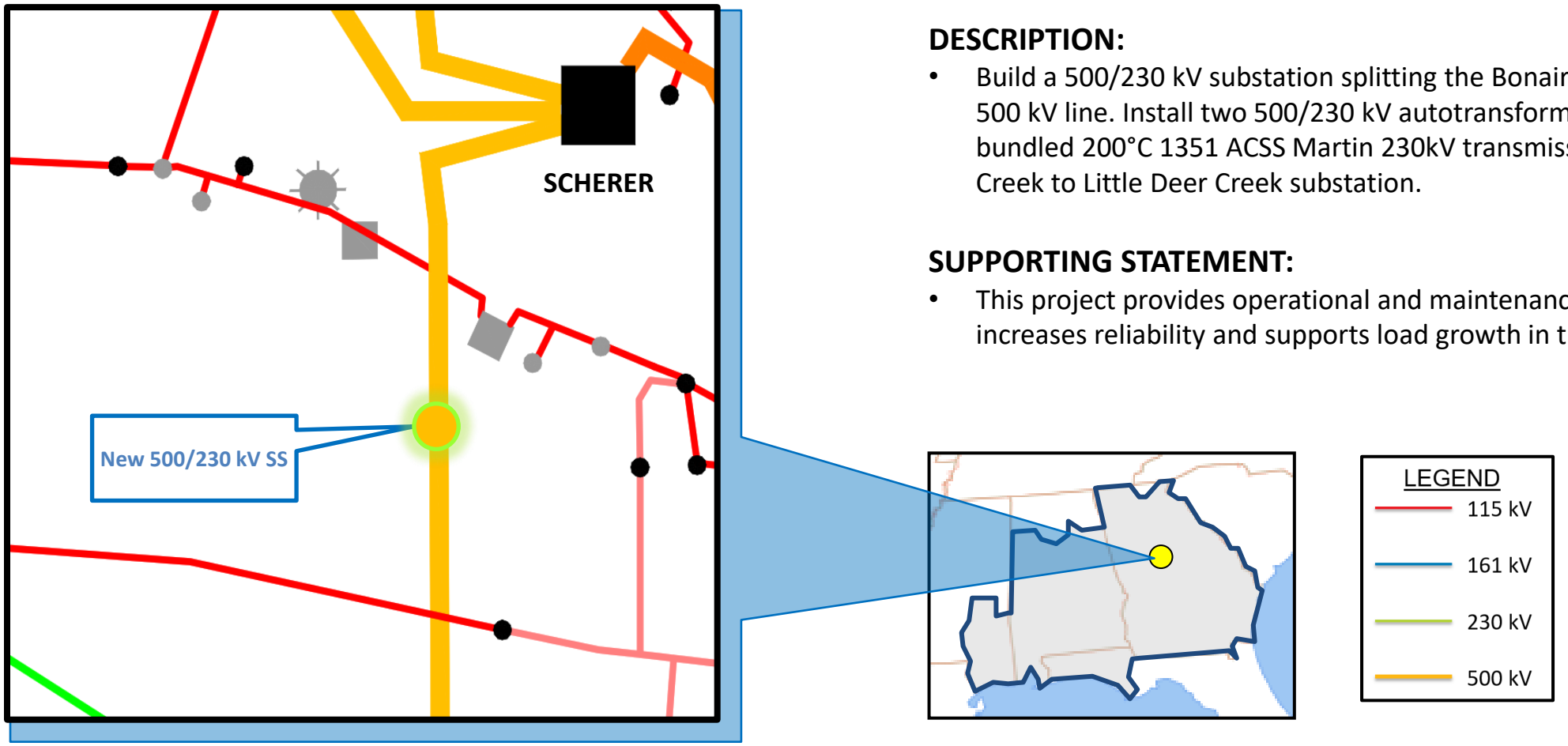


SOUTHERN Balancing Authority Area

SOUTHERN

• **2028**

SOCO: DEER CREEK 500/230 KV SUBSTATION



DESCRIPTION:

- Build a 500/230 kV substation splitting the Bonaire Primary – Scherer 500 kV line. Install two 500/230 kV autotransformers and build 2 bundled 200°C 1351 ACSS Martin 230kV transmission lines from Deer Creek to Little Deer Creek substation.

SUPPORTING STATEMENT:

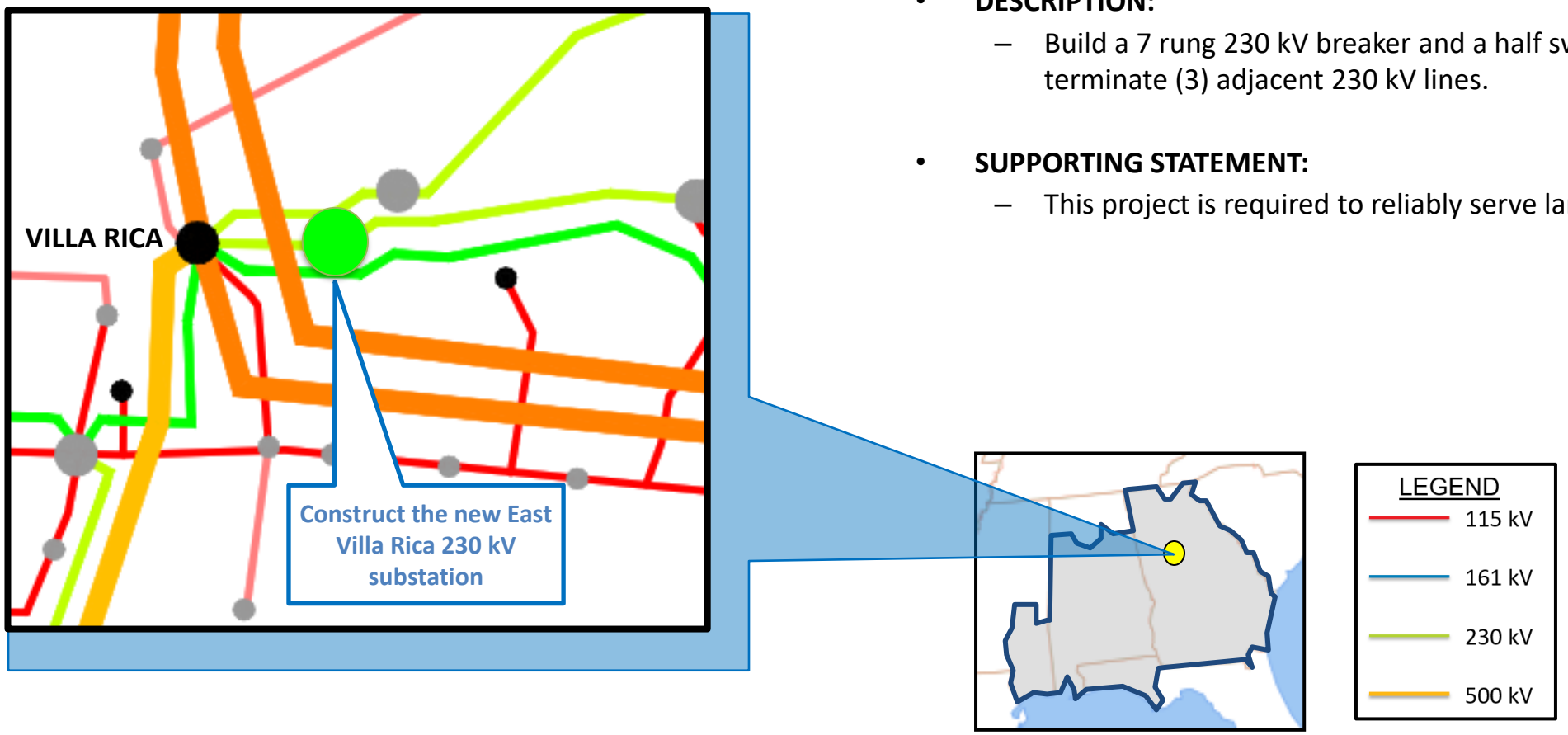
- This project provides operational and maintenance flexibility, which increases reliability and supports load growth in the area.

SOUTHERN Balancing Authority Area

SOUTHERN

• **2028**

SOCO: EAST VILLA RICA 230 KV SUBSTATION



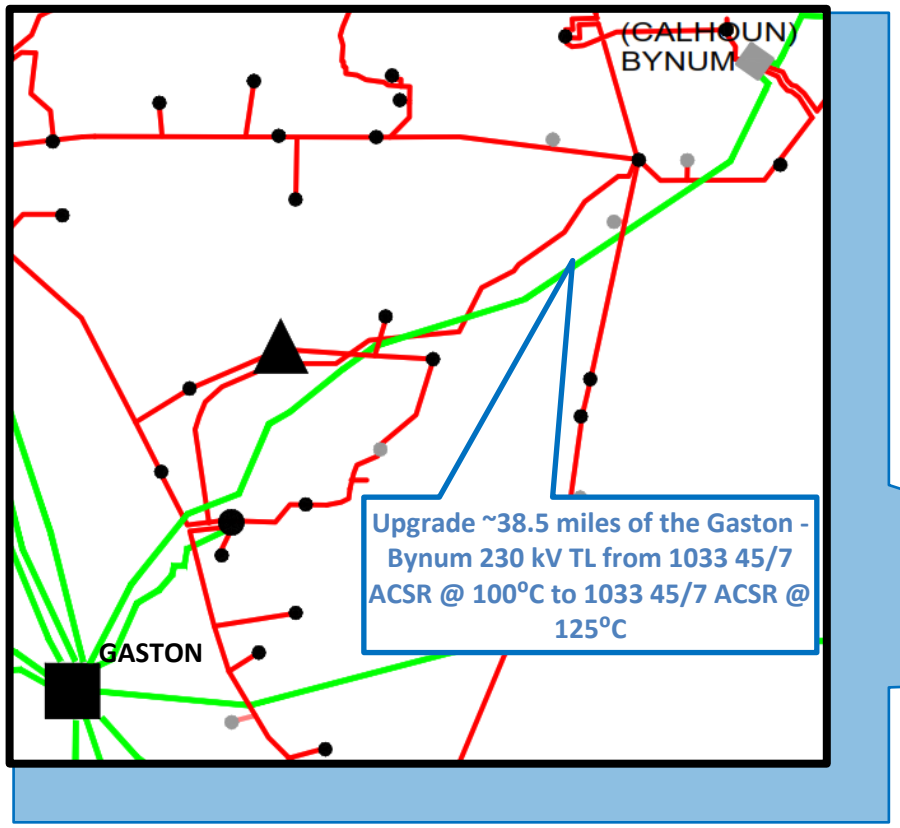
- **DESCRIPTION:**
  - Build a 7 rung 230 kV breaker and a half switching station and terminate (3) adjacent 230 kV lines.
- **SUPPORTING STATEMENT:**
  - This project is required to reliably serve large loads in the area.

SOUTHERN Balancing Authority Area

SOUTHERN

• **2028**

SOCO: GASTON – BYNUM 230 KV TL UPGRADE

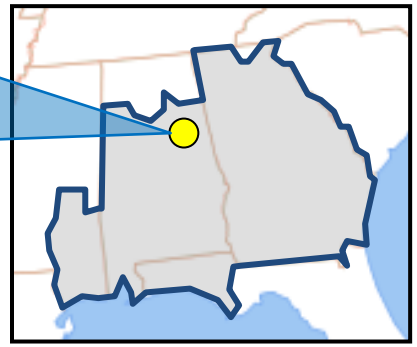


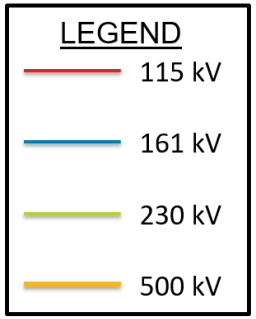
DESCRIPTION:

- Upgrade ~38.5 miles of the Gaston - Bynum 230 kV TL from 1033 45/7 ACSR @ 100°C to 1033 45/7 ACSR @ 125°C.

SUPPORTING STATEMENT:

- The Bynum - Gaston 230 kV transmission line overloads under contingency.



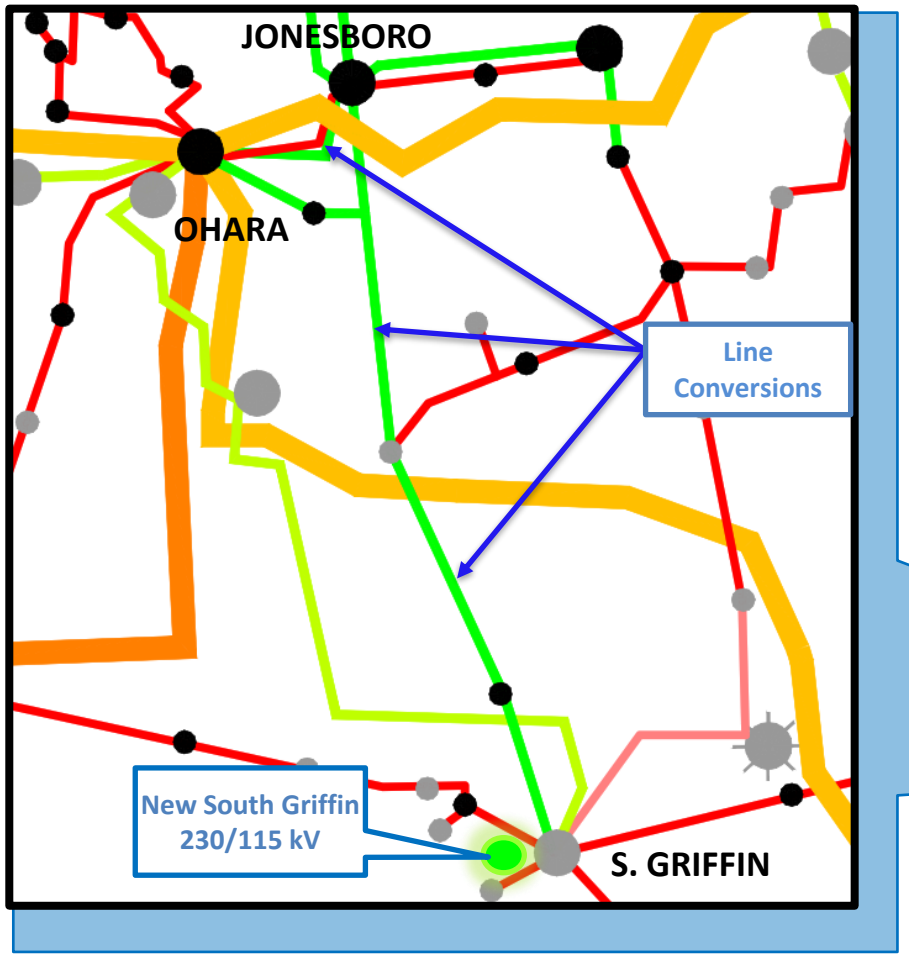


SOUTHERN Balancing Authority Area

SOUTHERN

• 2028

SOCO: HAMPTON AREA 230/115 KV IMPROVEMENTS

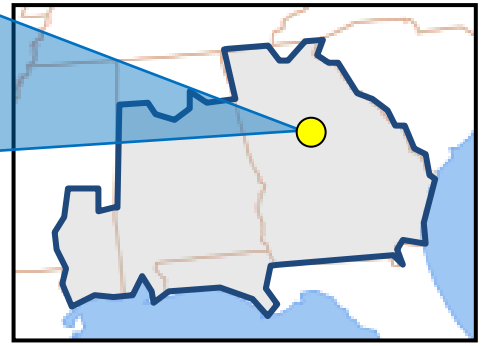


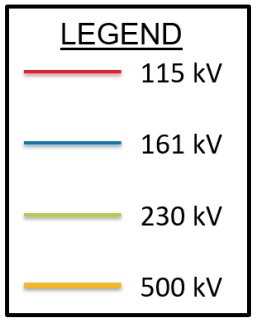
DESCRIPTION:

- GPC: Convert Hampton – Ohara 115 kV and Jonesboro – Ohara 115 kV to create a new Jonesboro – Hampton 230 kV transmission line. Convert Hampton – South Griffin 115 kV to 230 kV operation. Loop in Jonesboro – Ohara 115kV through Bonanza to network the line. Install a new 230/115 kV auto at Jonesboro.
- MEAG: Build a new 230/115 kV substation and relocate all lines except for the South Coweta and Griffin #1 115 kV lines from the existing South Griffin substation. Terminate the newly converted Hampton 230 kV line at South Griffin.
- GTC: Construct a new 230/115 kV substation next to the existing Hampton 115 kV substation. The new substation will serve a new load in the area as well as the existing Hampton 115 kV substation.

SUPPORTING STATEMENT:

- These projects will address multiple thermal overloads in the area that occur under contingency.



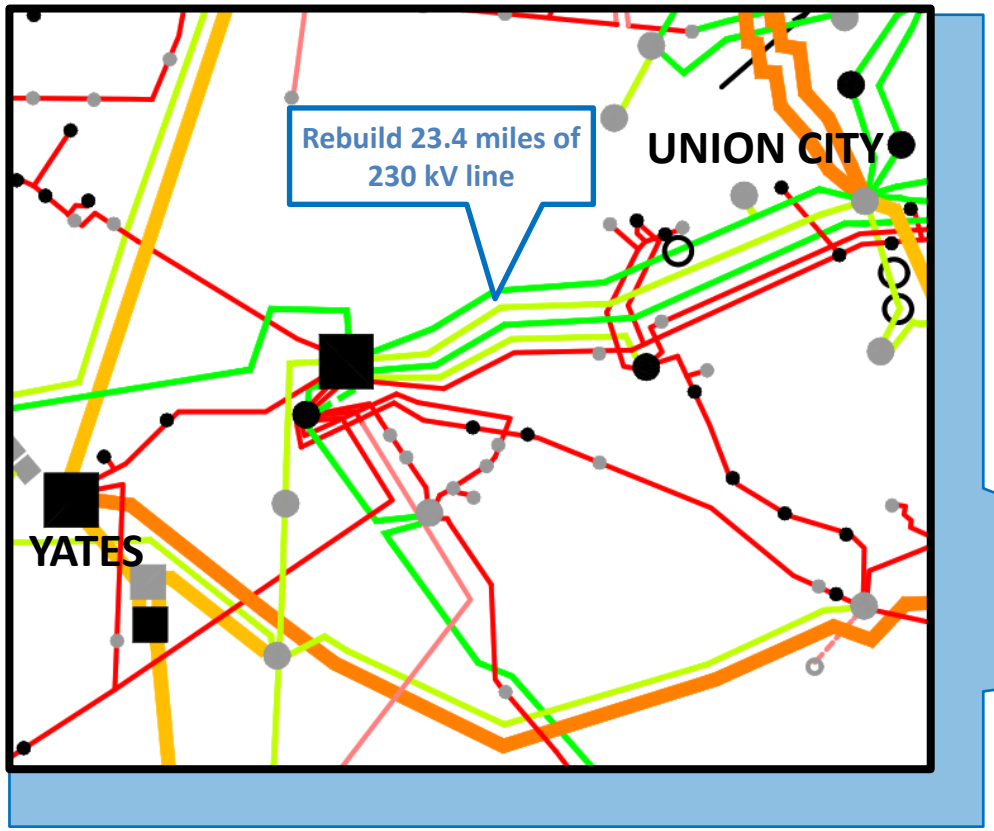


SOUTHERN Balancing Authority Area

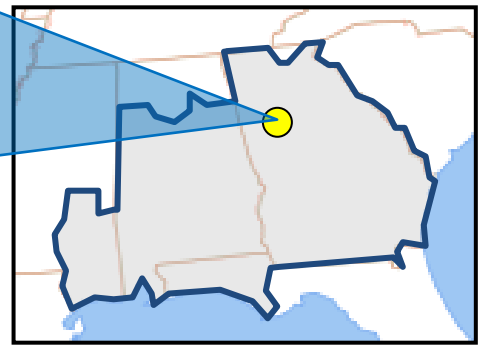
SOUTHERN

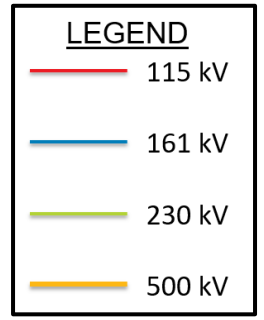
• **2028**

SOCO: UNION CITY – LINE CREEK – YATES 230 KV LINE REBUILD



- **Description:**
  - Rebuild the entire Union City – Line Creek – Yates 230 kV lines (approximately 23.4 miles) with 200°C 1351 ACSS conductor and upgrade limiting elements at substations along the line.
- **Supporting Statement:**
  - The Union City – Line Creek 230kV and Line Creek - Yates 230kV lines overload under contingency.



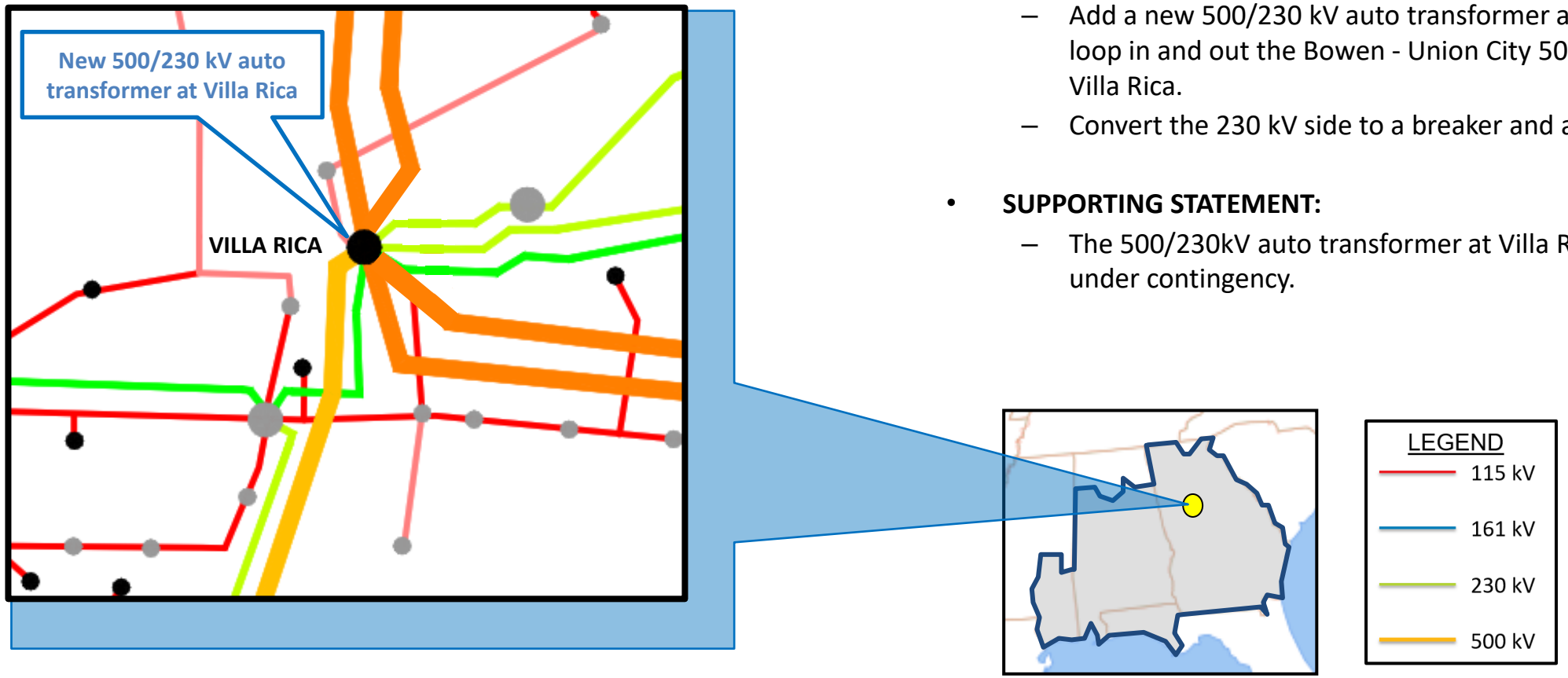


SOUTHERN Balancing Authority Area

SOUTHERN

• **2028**

SOCO: VILLA RICA NEW 500/230 KV AUTO TRANSFORMER



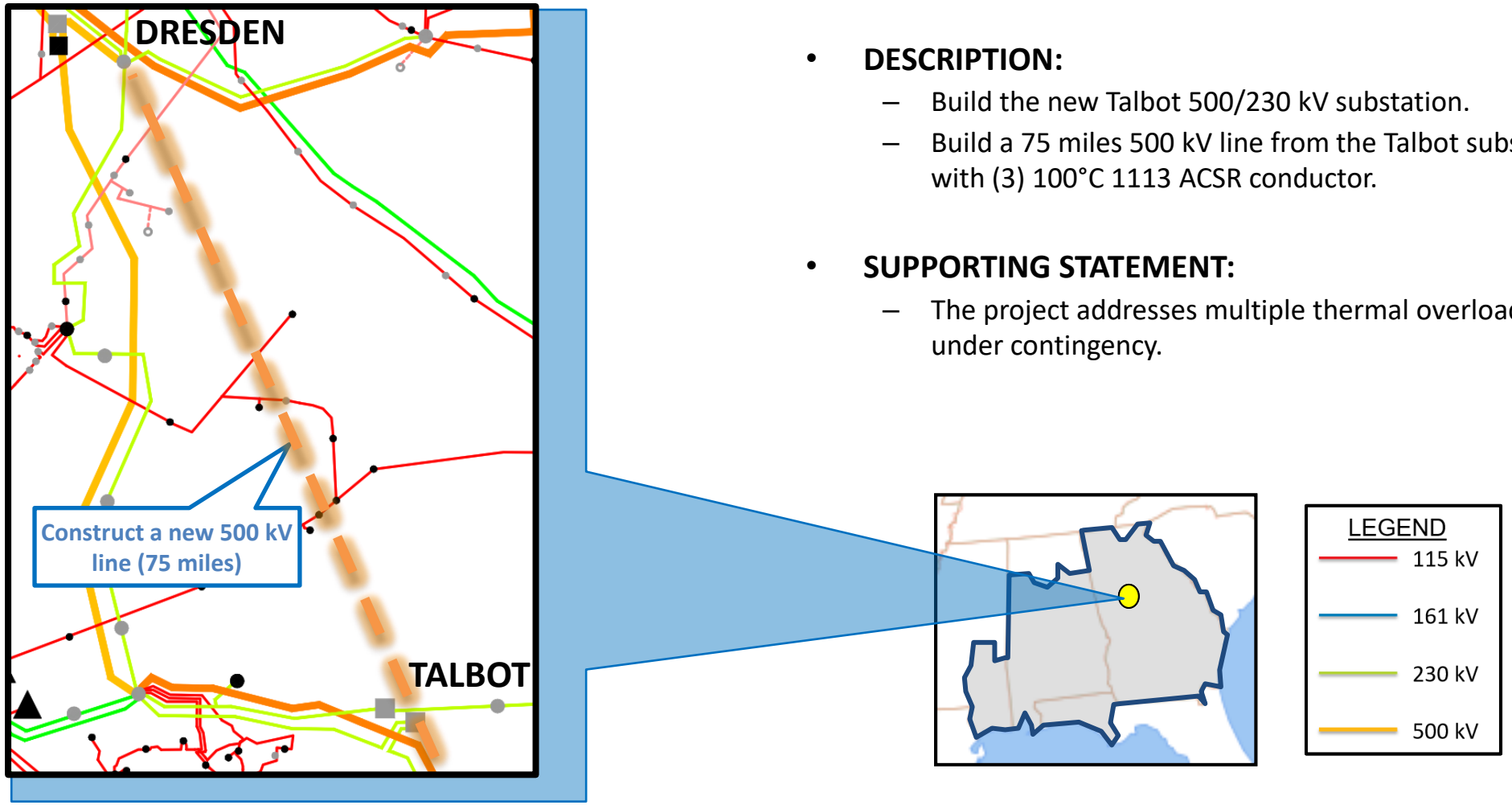
- **DESCRIPTION:**
  - Add a new 500/230 kV auto transformer at Villa Rica, and loop in and out the Bowen - Union City 500 kV line into Villa Rica.
  - Convert the 230 kV side to a breaker and a half scheme.
- **SUPPORTING STATEMENT:**
  - The 500/230kV auto transformer at Villa Rica overloads under contingency.

SOUTHERN Balancing Authority Area

SOUTHERN

- **2029**

GTC: DRESDEN – TALBOT 500 KV LINE



- **DESCRIPTION:**
  - Build the new Talbot 500/230 kV substation.
  - Build a 75 miles 500 kV line from the Talbot substation to Dresden with (3) 100°C 1113 ACSR conductor.

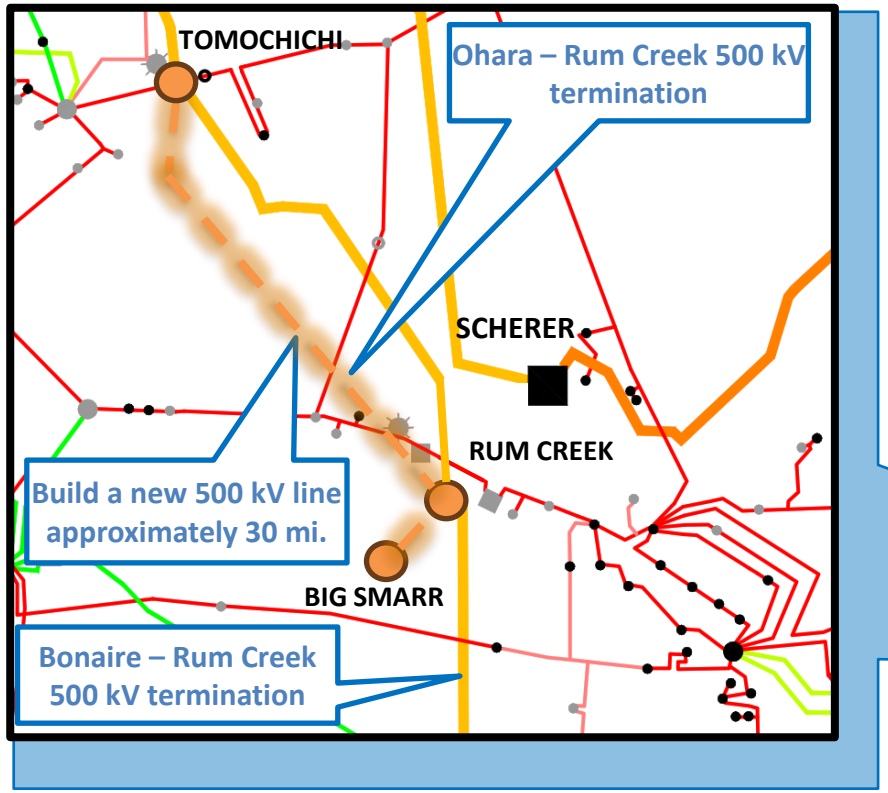
- **SUPPORTING STATEMENT:**
  - The project addresses multiple thermal overloads that occur under contingency.

SOUTHERN Balancing Authority Area

SOUTHERN

• 2029

GTC: RUM CREEK – TOMOCHICHI 500 KV

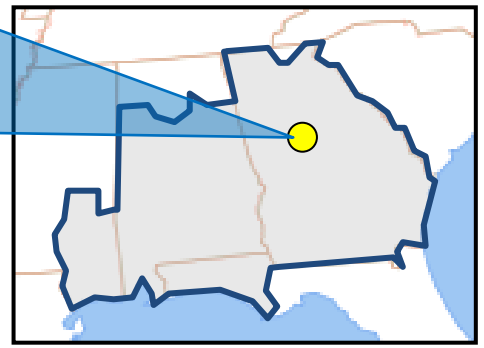


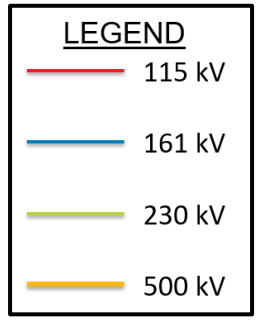
DESCRIPTION:

- Construct a 500 kV line from Rum Creek to Tomochichi, approximately 30 miles long, with (3) 100°C 1113 ACSR conductor.
- Make the necessary modifications at Rum Creek and Tomochichi to add breakers and terminate the line.

SUPPORTING STATEMENT:

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



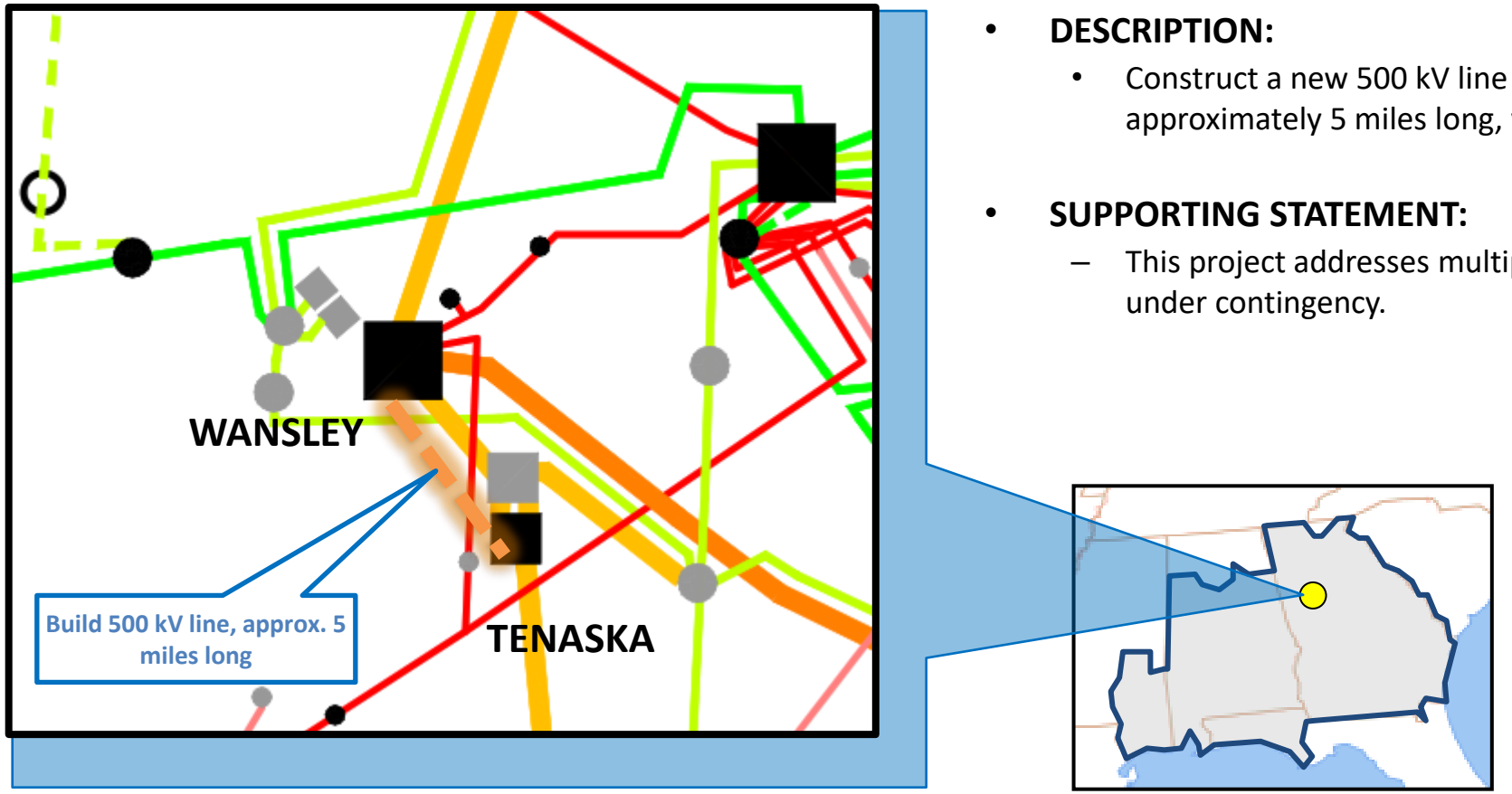


SOUTHERN Balancing Authority Area

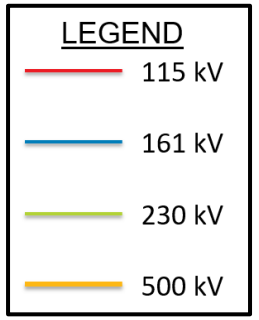
SOUTHERN

• **2029**

GTC: TENASKA – WANSLEY 500 KV



- **DESCRIPTION:**
  - Construct a new 500 kV line from Tenaska to Wansley, approximately 5 miles long, with (3) 100°C 1113 ACSR conductor.
- **SUPPORTING STATEMENT:**
  - This project addresses multiple thermal overloads that occur under contingency.

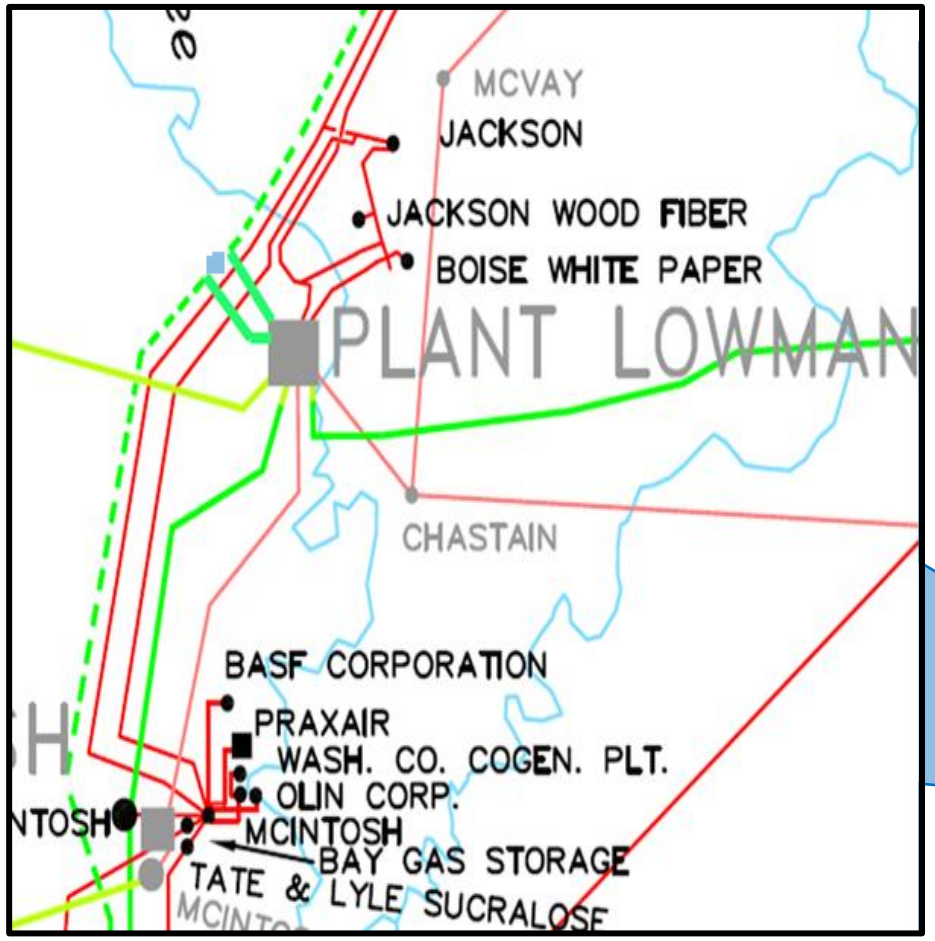


SOUTHERN Balancing Authority Area

POWERSOUTH

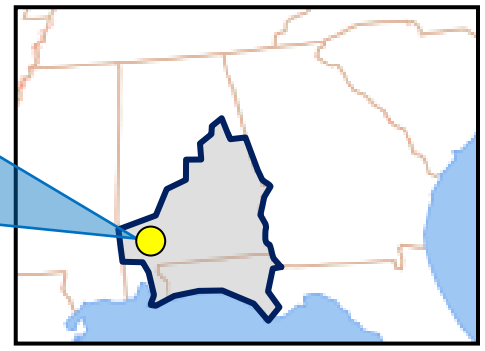
- **2029**

PS: BASSETT CREEK - TENSAW 230 KV LINE LOOP INTO LOWMAN 230 KV



- **DESCRIPTION:**
  - Loop the existing Bassett Creek - Tensaw 230 kV line into Lowman 230 kV station as new tie lines between PS and SOCO. Requires the construction of approximately 7 miles of new 230 kV transmission line with 1351 ACSS at 200°C.

- **SUPPORTING STATEMENT:**
  - Prevents thermal overloading under contingency after addition of new generation at Lowman.

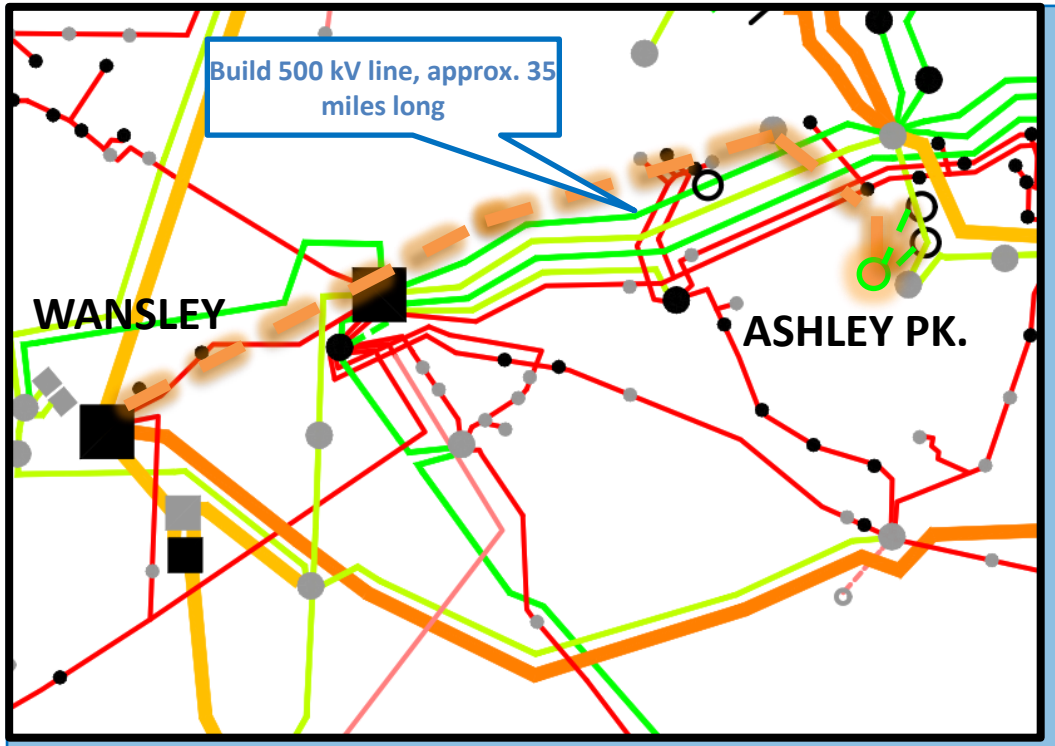


SOUTHERN Balancing Authority Area

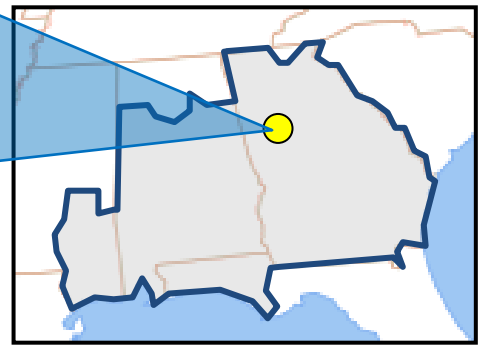
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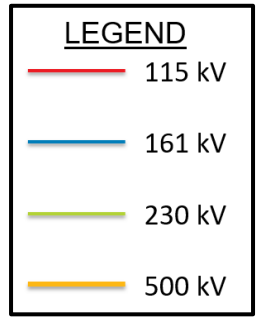
• **2029**

SOCO: ASHLEY PARK – WANSLEY 500 KV



- **DESCRIPTION:**
  - Construct a new 500 kV line from Ashley Park to Wansley, approximately 35 miles long, with (3) 100°C 1113 ACSR conductor.
  - At Ashley Park, install three new 500kV breakers and associated equipment to accommodate for the newline to Wansley.
- **SUPPORTING STATEMENT:**
  - This project addresses multiple thermal overloads that occur under contingency.



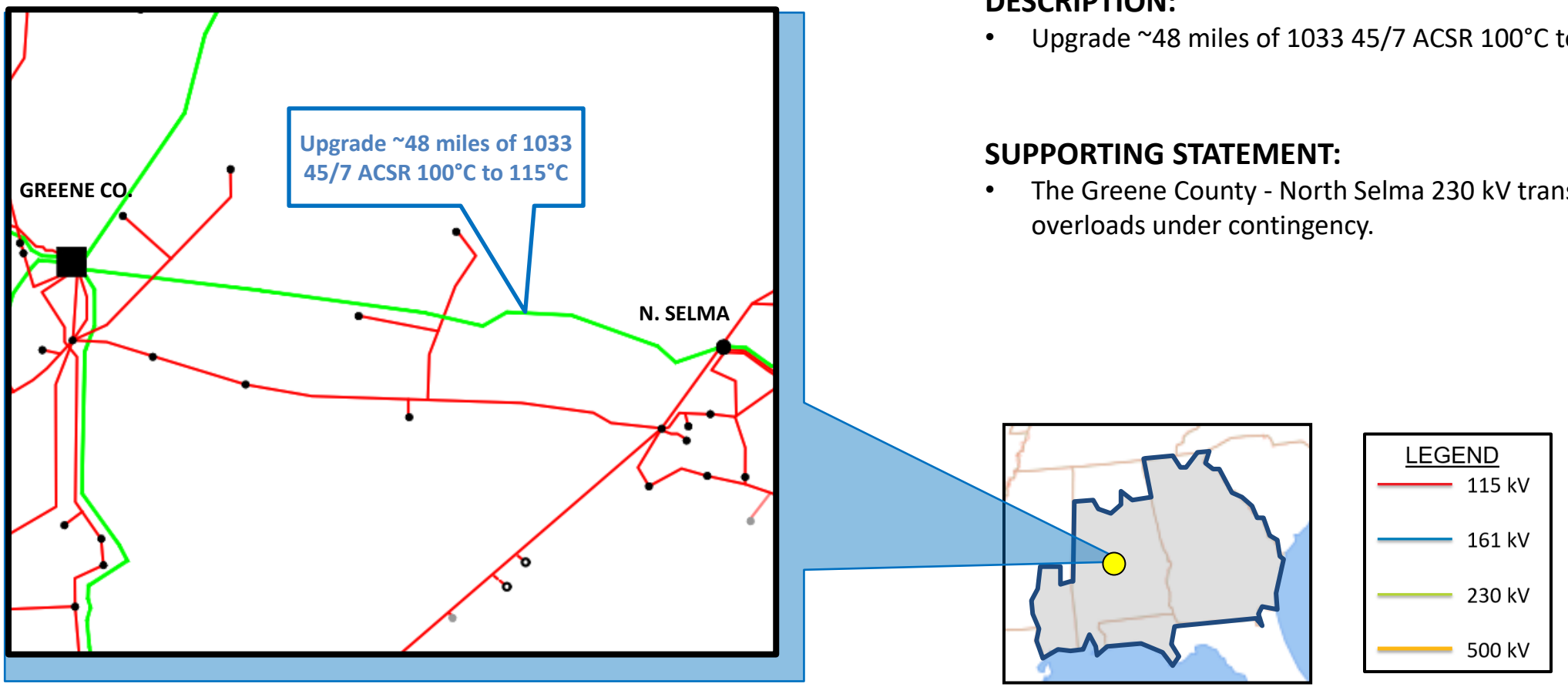


SOUTHERN Balancing Authority Area

SOUTHERN

• **2029**

SOCO: GREENE COUNTY – NORTH SELMA 230 KV TL UPGRADE



DESCRIPTION:

- Upgrade ~48 miles of 1033 45/7 ACSR 100°C to 115°C.

SUPPORTING STATEMENT:

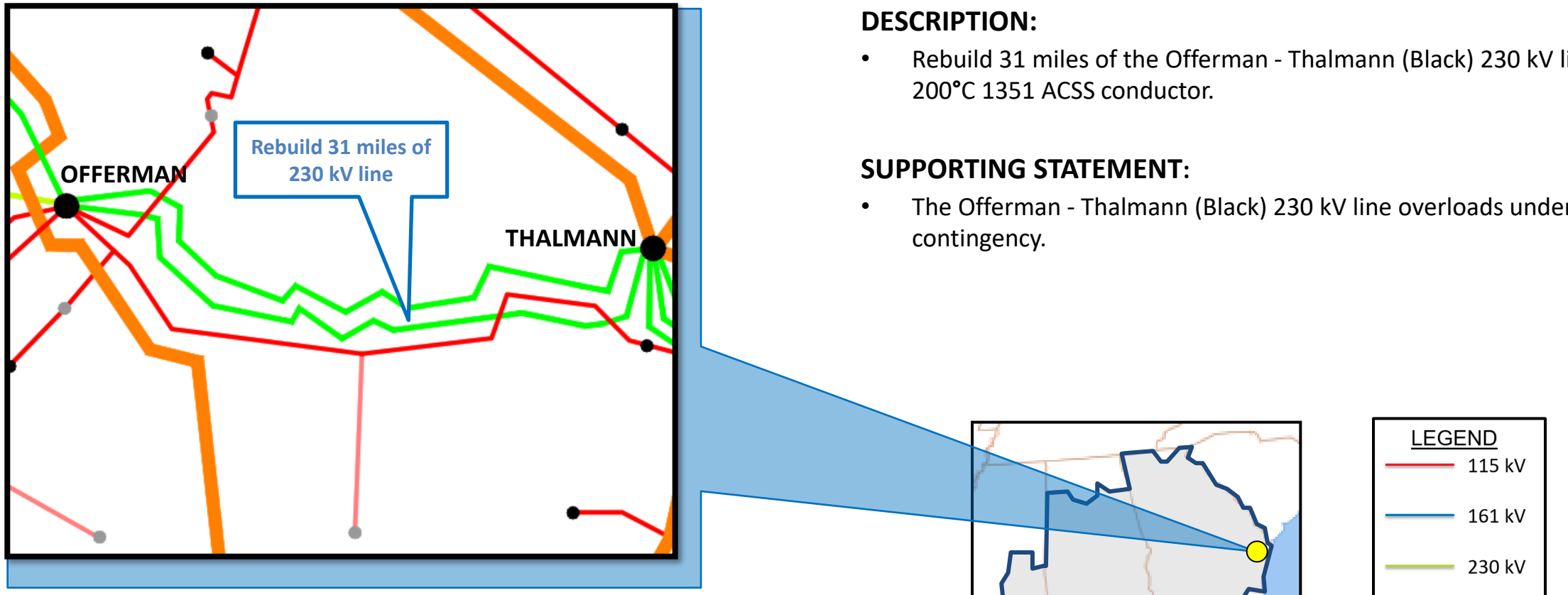
- The Greene County - North Selma 230 kV transmission line overloads under contingency.

SOUTHERN Balancing Authority Area

SOUTHERN

• **2029**

SOCO: OFFERMAN-THALMANN (BLACK) 230 KV



DESCRIPTION:

- Rebuild 31 miles of the Offerman - Thalmann (Black) 230 kV line using 200°C 1351 ACSS conductor.

SUPPORTING STATEMENT:

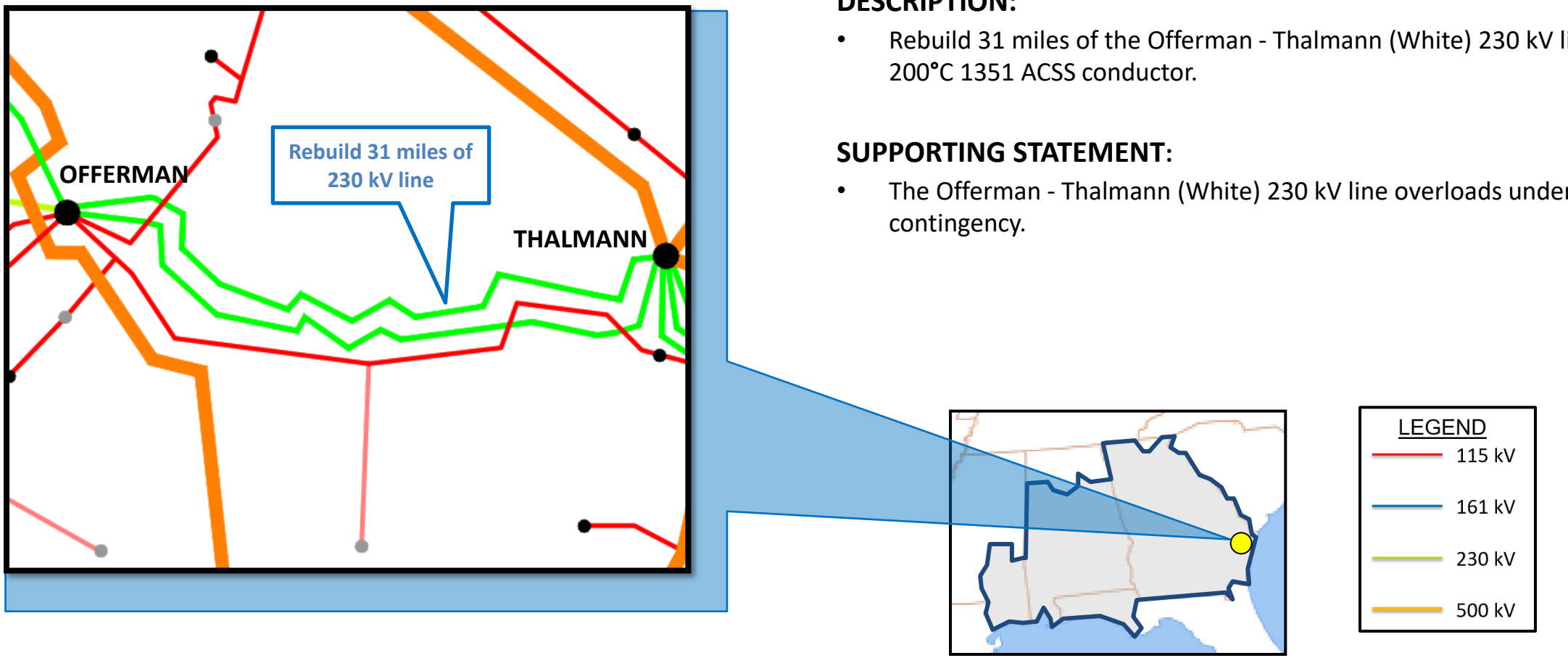
- The Offerman - Thalmann (Black) 230 kV line overloads under contingency.

SOUTHERN Balancing Authority Area

SOUTHERN

• **2029**

SOCO: OFFERMAN-THALMANN (WHITE) 230 KV



DESCRIPTION:

- Rebuild 31 miles of the Offerman - Thalmann (White) 230 kV line using 200°C 1351 ACSS conductor.

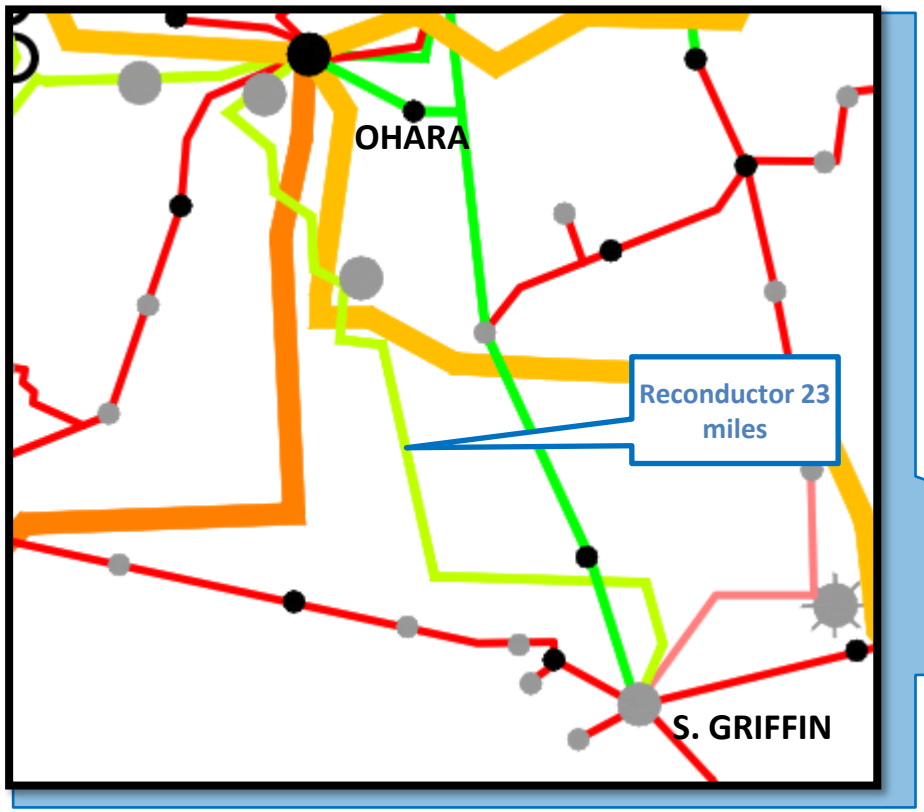
SUPPORTING STATEMENT:

- The Offerman - Thalmann (White) 230 kV line overloads under contingency.

SOUTHERN

• 2029

SOCO: OHARA – SOUTH GRIFFIN 230 KV LINE RECONDUCTOR

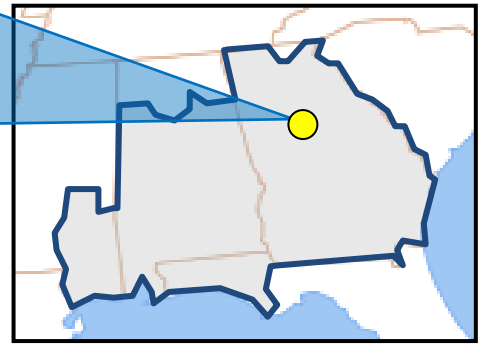


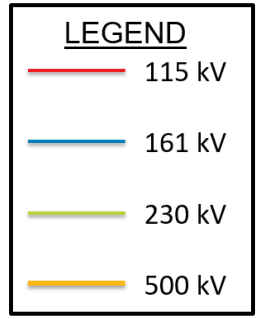
DESCRIPTION:

- Reconductor the 23 miles of the Ohara - South Griffin 230 kV line section using 200C 1351 ACSS conductor.

SUPPORTING STATEMENT:

- The Ohara - South Griffin 230 kV line overloads under contingency.



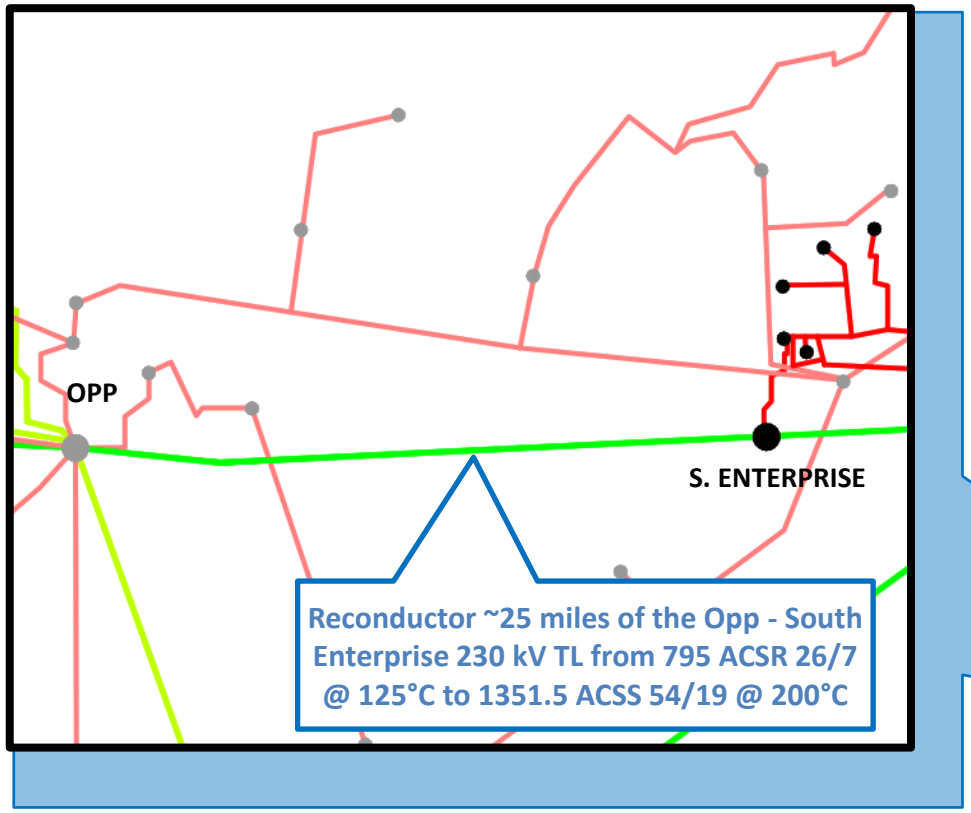


SOUTHERN Balancing Authority Area

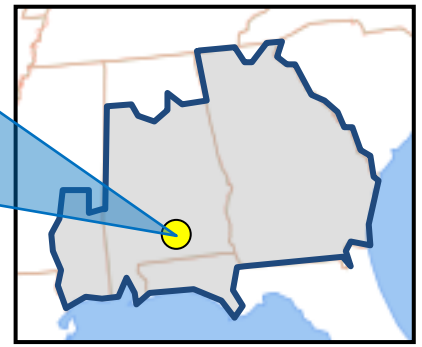
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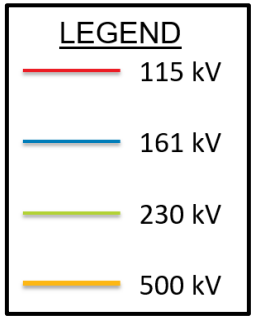
• **2029**

SOCO: OPP – SOUTH ENTERPRISE 230 KV TL RECONDUCTOR



- **DESCRIPTION:**
  - Reconductor ~25 miles of the Opp - South Enterprise 230 kV TL from 795 ACSR 26/7 @ 125°C to 1351.5 ACSS 54/19 @ 200°C.
- **SUPPORTING STATEMENT:**
  - The Opp - South Enterprise 230 kV transmission line overloads under contingency.



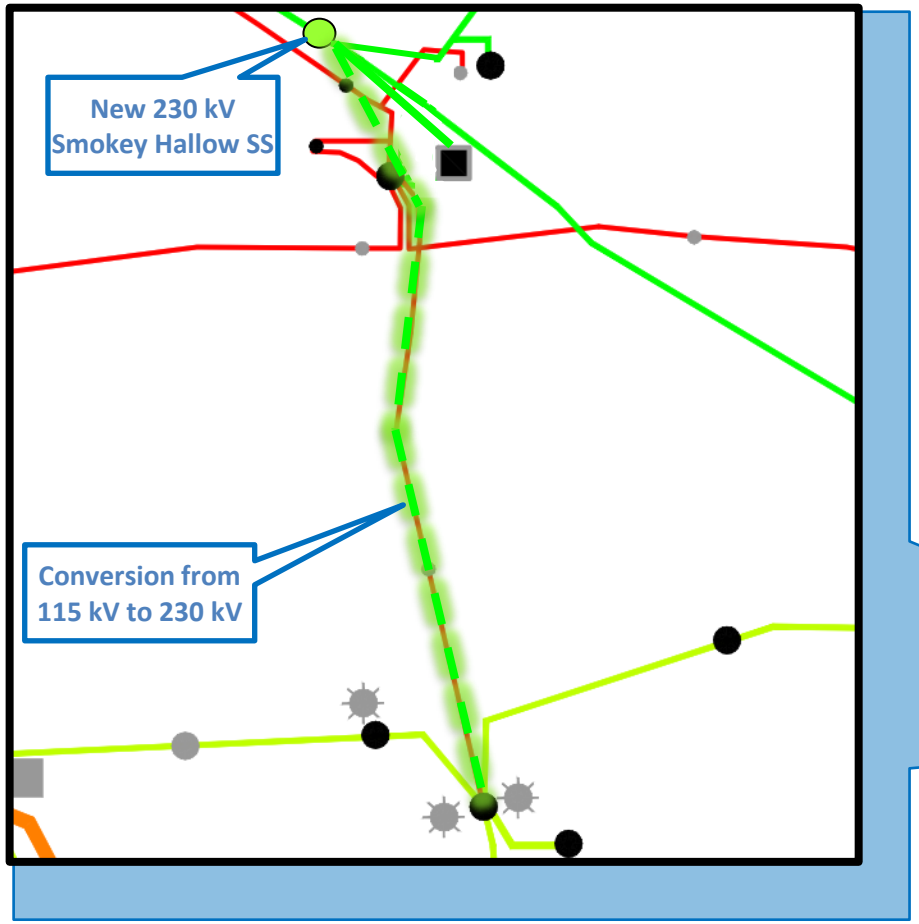


SOUTHERN Balancing Authority Area

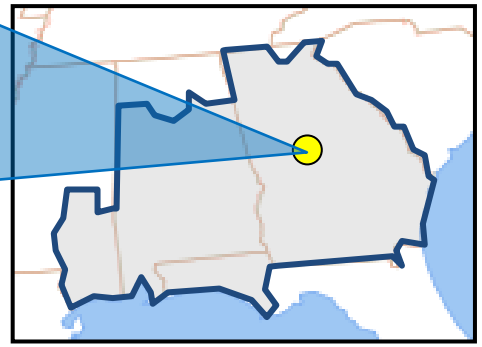
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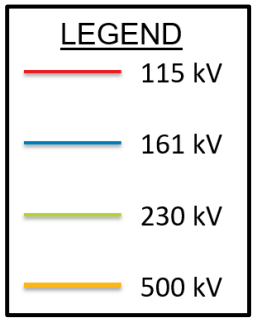
• **2029**

SOCO: THOMASTON 230 KV NETWORK AREA IMPROVEMENT



- **Description:**
  - Rebuild the 23 miles radial Butler – Thomaston 115 kV line to 230 kV voltage operation with 200°C 1351 ACSS conductor. Make all necessary upgrades and accommodations in substations along the line.
  - Build new 230 kV Smokey Hallow switching station to replace the Thomaston 230 kV yard and end of life equipment.
- **Supporting Statement:**
  - Line conversion and new 230 kV substation reduces multiple 230 kV line loadings, replaces end of life equipment, and provides additional operational and maintenance flexibility, which increases reliability.



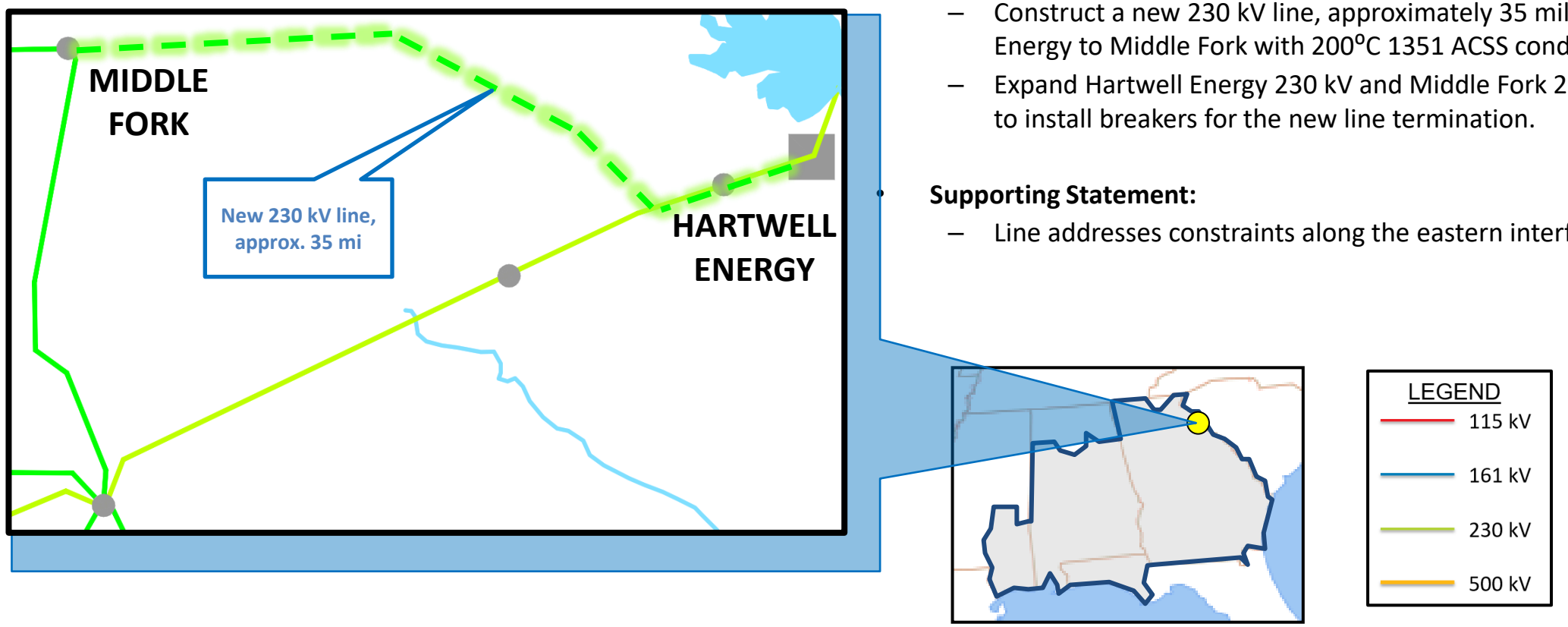


SOUTHERN Balancing Authority Area

SOUTHERN

• 2030

GTC: HARTWELL ENERGY – MIDDLE FORK 230 KV LINE



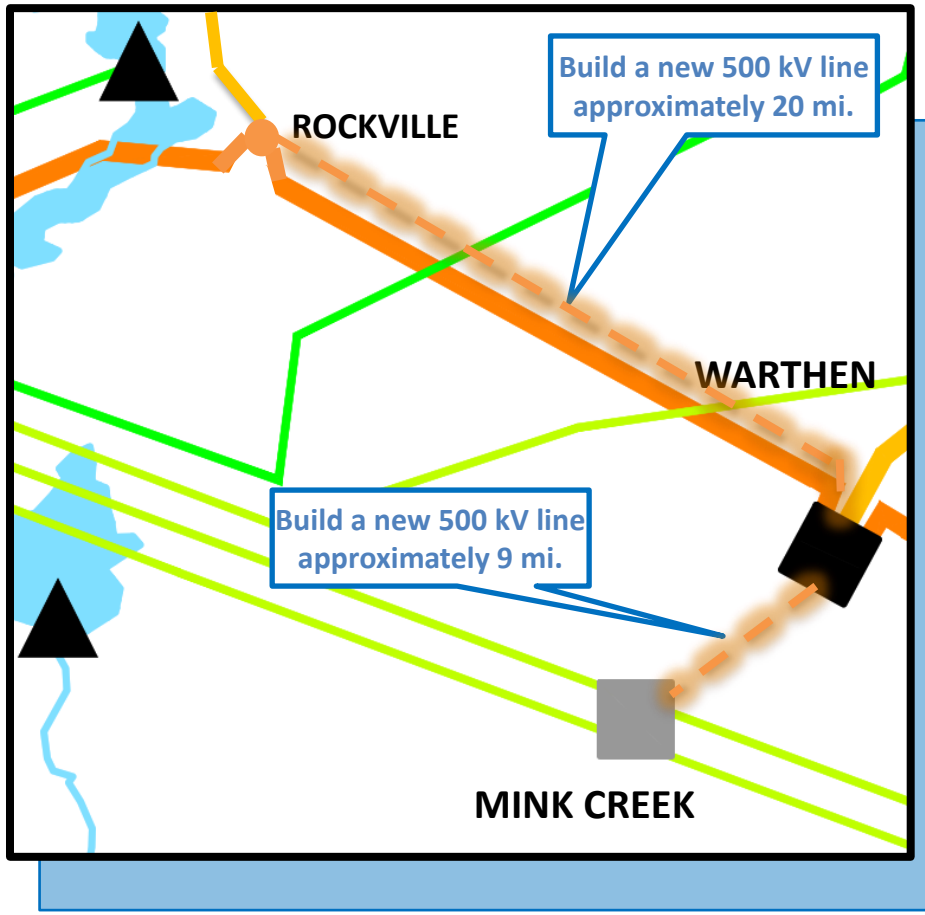
- **Description:**
  - Construct a new 230 kV line, approximately 35 miles, from Hartwell Energy to Middle Fork with 200°C 1351 ACSS conductor.
  - Expand Hartwell Energy 230 kV and Middle Fork 230 kV as necessary to install breakers for the new line termination.
- **Supporting Statement:**
  - Line addresses constraints along the eastern interface.

SOUTHERN Balancing Authority Area

SOUTHERN

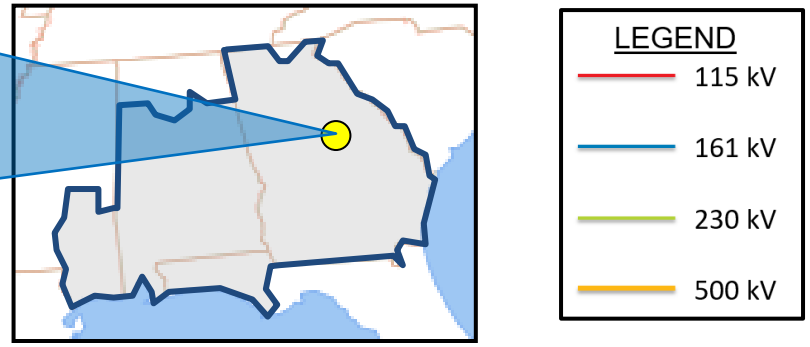
• **2030**

GTC: ROCKVILLE – MINK CREEK – WARTHEN 500 KV LINES



- **Description:**
  - Build the new 500 kV line from Rockville to Mink Creek and Mink Creek to Warthen, approximately 20 miles and 9 miles long respectively with (3) 100°C 1113 ACSR conductor.
  - Build a 500 kV yard at Tiger Creek and install a 500/230 kV autotransformer.
  - Make all necessary accommodations at Warthen and Rockville for the new 500 kV breakers and line termination

- **Supporting Statement:**
  - This project addresses multiple thermal overloads that occur under contingency.

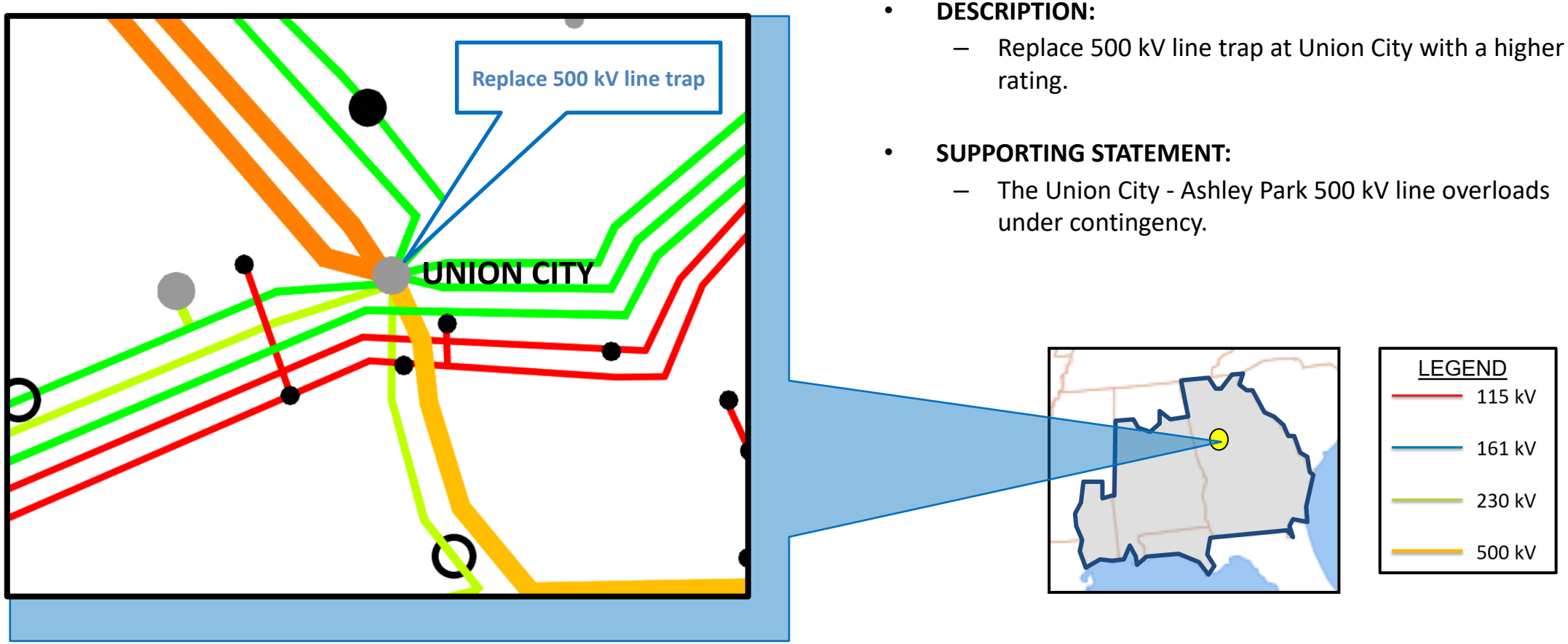


SOUTHERN Balancing Authority Area

SOUTHERN

• **2030**

GTC: UNION CITY LINE TRAP REPLACEMENT



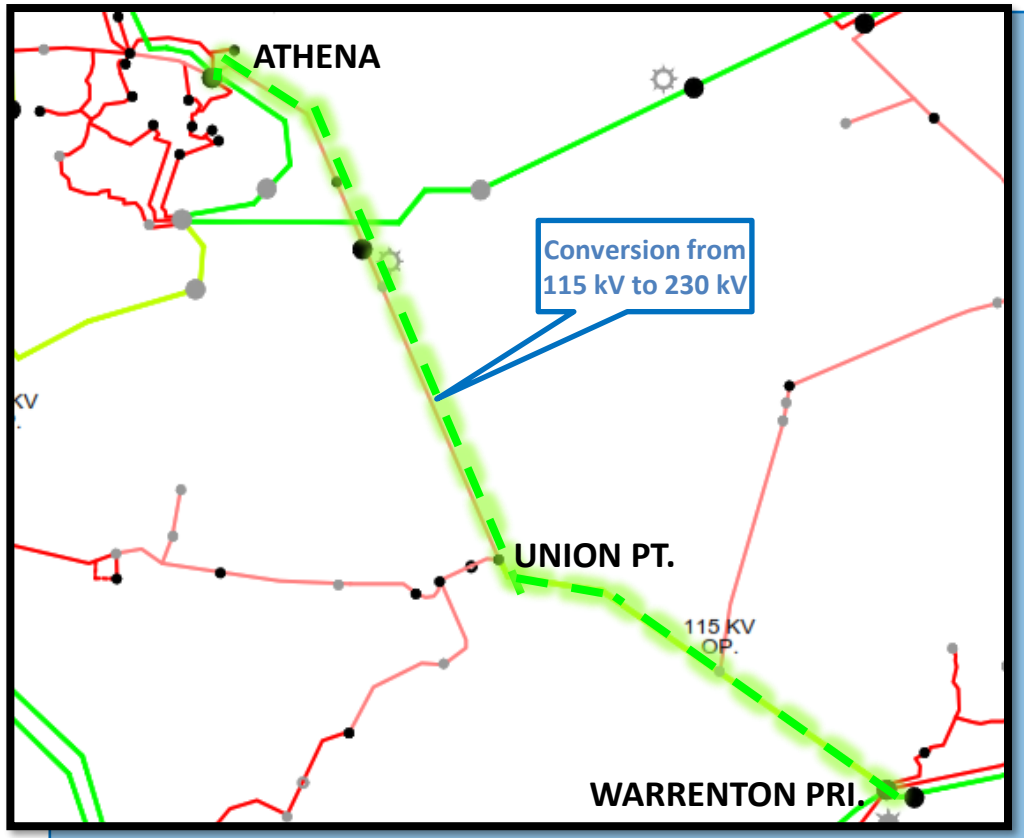
- **DESCRIPTION:**
  - Replace 500 kV line trap at Union City with a higher rating.
- **SUPPORTING STATEMENT:**
  - The Union City - Ashley Park 500 kV line overloads under contingency.

SOUTHERN Balancing Authority Area

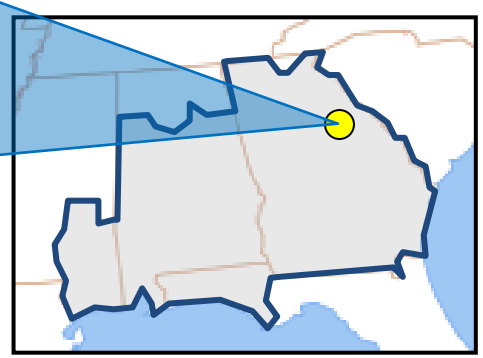
SOUTHERN

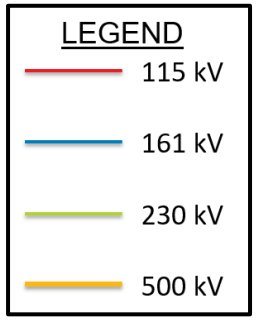
• **2030**

MEAG: ATHENA – UNION POINT – WARRENTON PRIMARY 230 KV CONVERSION



- **DESCRIPTION:**
  - Convert the 115 kV lines from Athena - Union Point - Ray Place Road - Warrenton Primary to 230 kV operation, a total of 32 miles.
  - Replace limiting equipment in substations along the lines.
- **SUPPORTING STATEMENT:**
  - This project addresses multiple thermal overloads that occur under contingency.



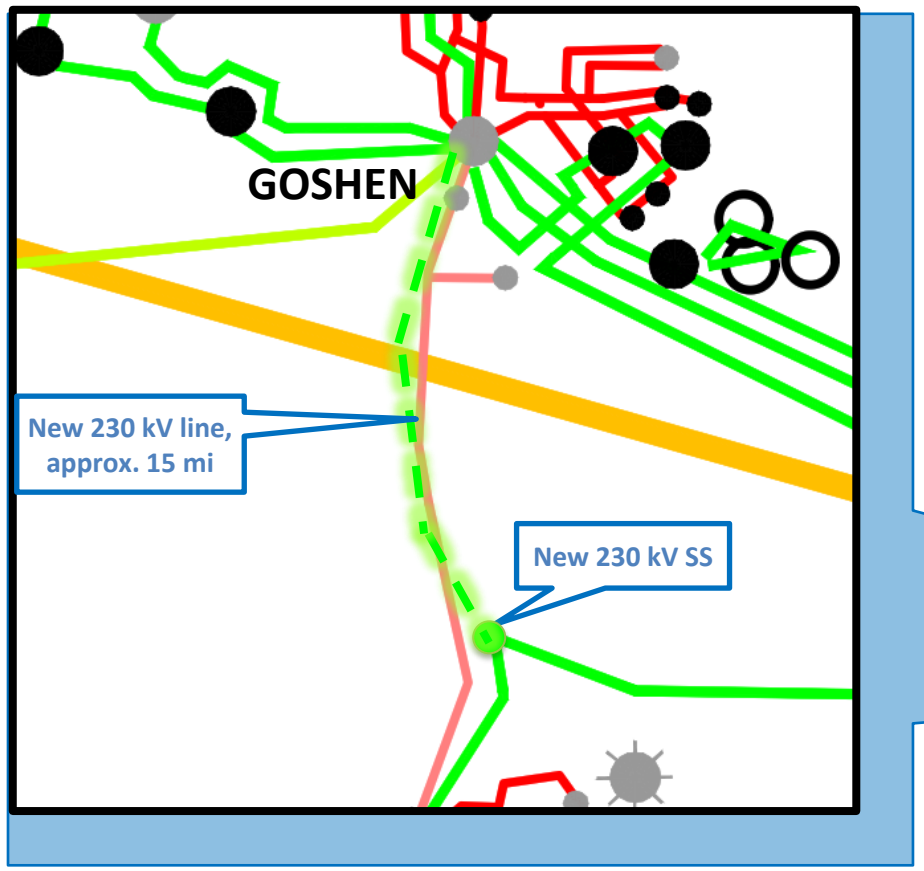


SOUTHERN Balancing Authority Area

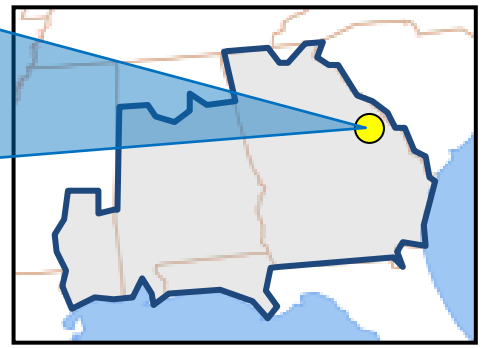
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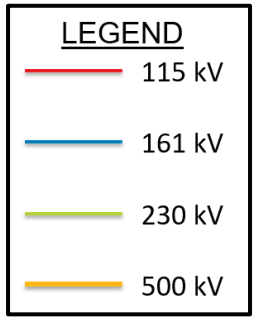
• **2030**

MEAG: GOSHEN AREA 230 KV SOLUTION



- **DESCRIPTION:**
  - Construct a 230 kV switching station on the Waynesboro – Wilson 230 kV line and a new 230 kV line between the switching station and Goshen, approximately 12 miles, with 200°C 1351 ACSS conductor.
- **SUPPORTING STATEMENT:**
  - This project addresses multiple thermal overloads that occur under contingency.



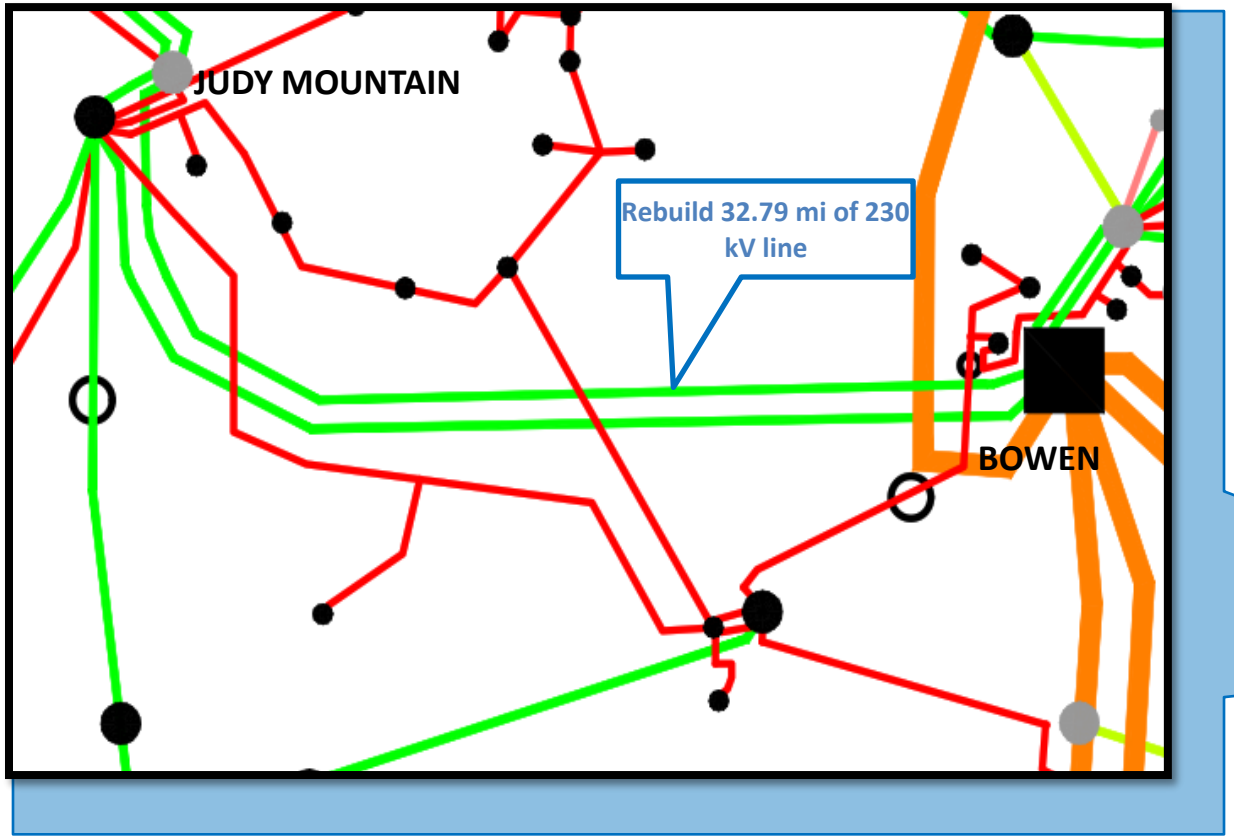


SOUTHERN Balancing Authority Area

SOUTHERN

• 2030

SOCO: BOWEN – JUDY MOUNTAIN 230 KV LINE REBUILD

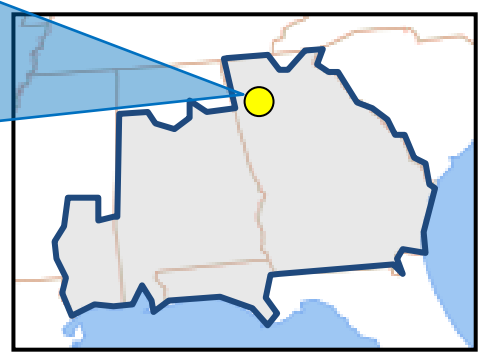


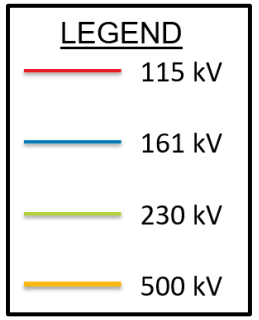
DESCRIPTION:

- Rebuild the 32.79 miles of the Bowen - Judy Mountain 230 kV line with (2) 200C 1351 ACSS Martin conductor.

SUPPORTING STATEMENT:

- The Bowen – Judy Mountain 230 kV line overloads under contingency.



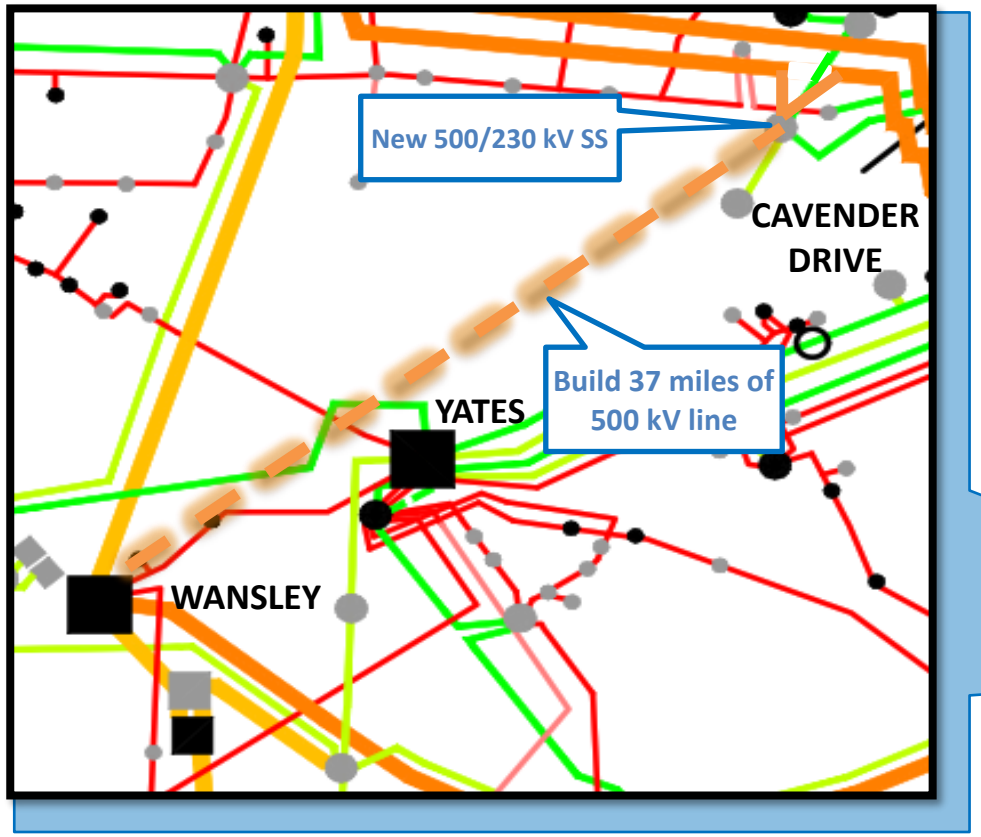


SOUTHERN Balancing Authority Area

SOUTHERN

• 2030

SOCO: CAVENDER DRIVE 500/230 KV SUBSTATION AND NEW 500 KV LINE

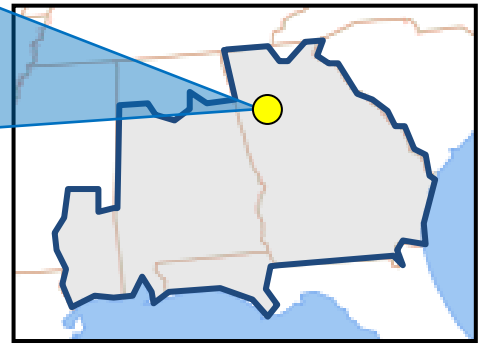


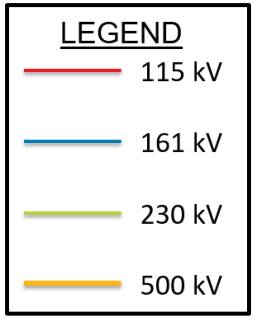
DESCRIPTION:

- GTC: Install a 500/230 kV autotransformer at Cavender Drive substation and loop in the Villa Rica - Union City 500 kV line.
- GPC: Construct a new 500 kV line from Cavender to Wansley, approximately 37 miles long, with (3) 100°C 1113 ACSR conductor.
- GTC/GPC: Provide accommodations at the substations for the Cavender Dr – Wansley 500 kV line terminations.

SUPPORTING STATEMENT:

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



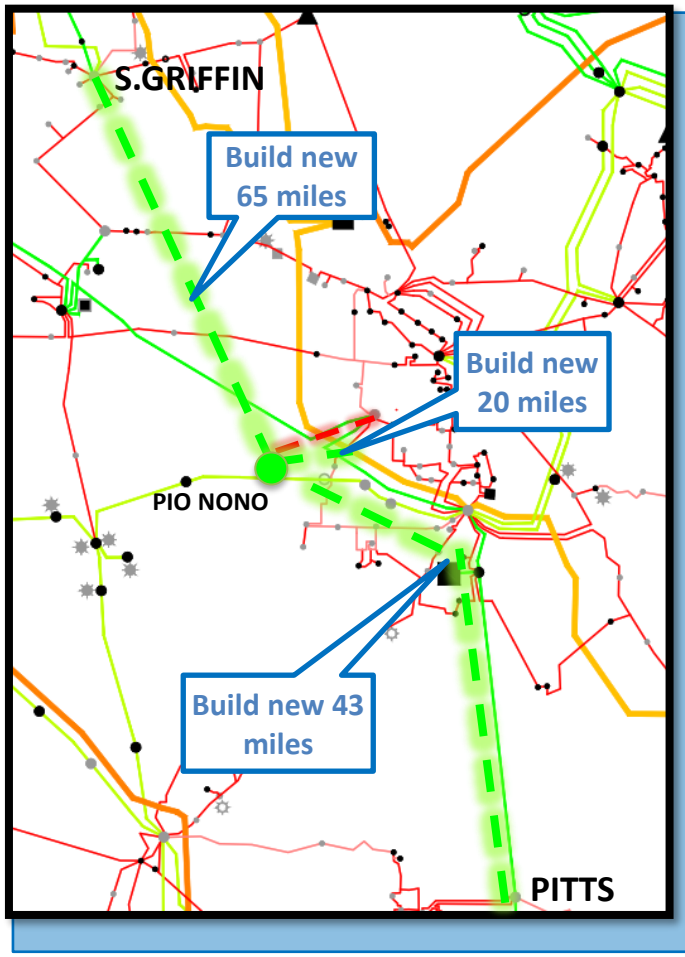


SOUTHERN Balancing Authority Area

SOUTHERN

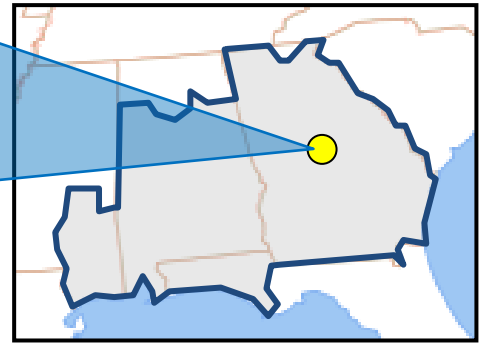
• **2031**

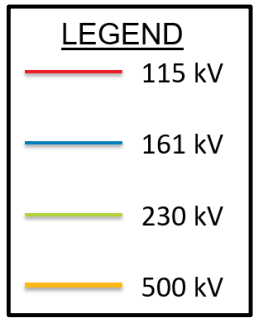
MEAG: PIO NONO 230/115 KV AREA SOLUTION



- **DESCRIPTION:**
  - Build a 230 kV substation and terminate lines from Dorsett, South Griffin, and Pitts. Lines to be build with 200°C 1351 ACSS conductor. Install a 400MVA autotransformer and build a 115 kV yard to terminate a line from Broadway.
  - Make all necessary modifications to accommodate all the 230 kV and 115 kV lines terminations.

- **SUPPORTING STATEMENT:**
  - This project addresses 230 kV and 115 kV thermal overloads that occur under contingency in the Central area and increases transfer capability from the South into Central and Metro South areas.



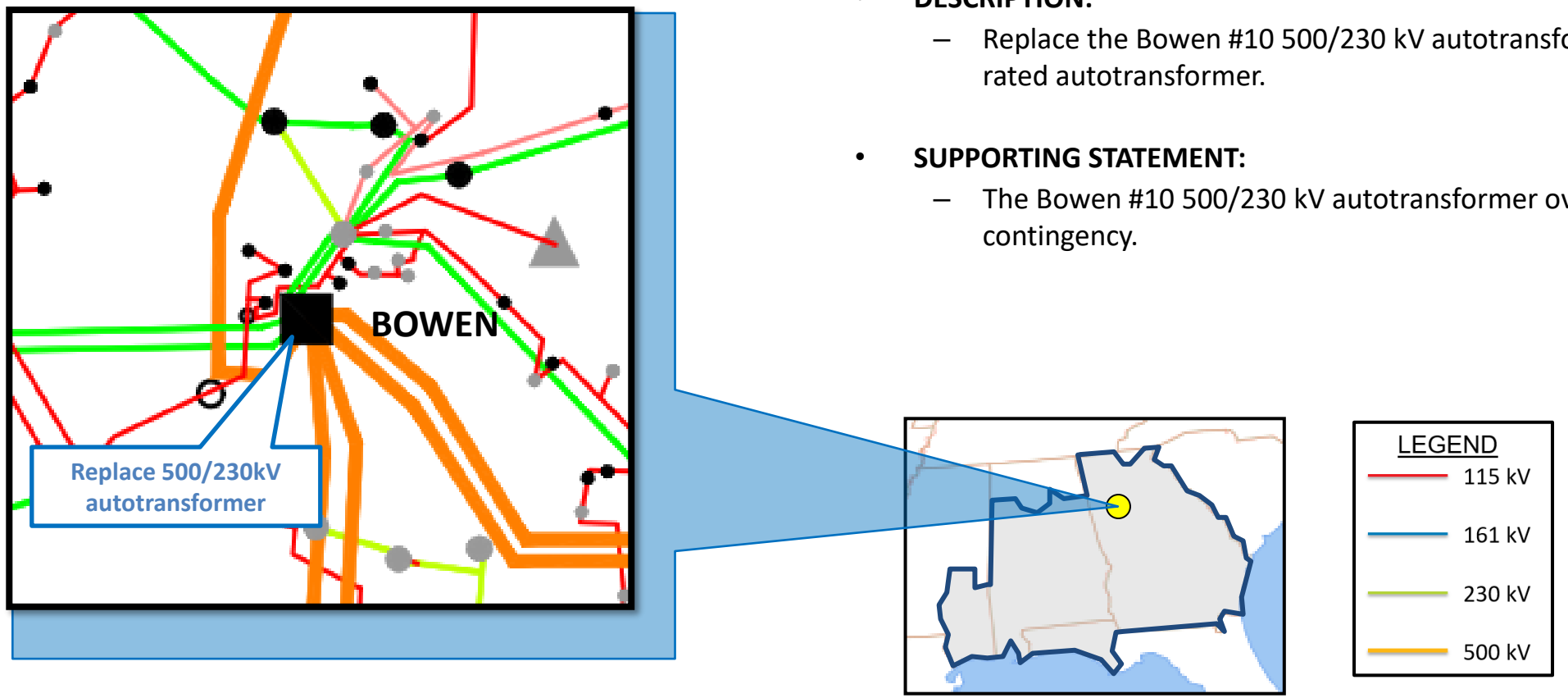


SOUTHERN Balancing Authority Area

SOUTHERN

• **2031**

SOCO: BOWEN #10 500/230 KV AUTOTRANSFORMER REPLACEMENT



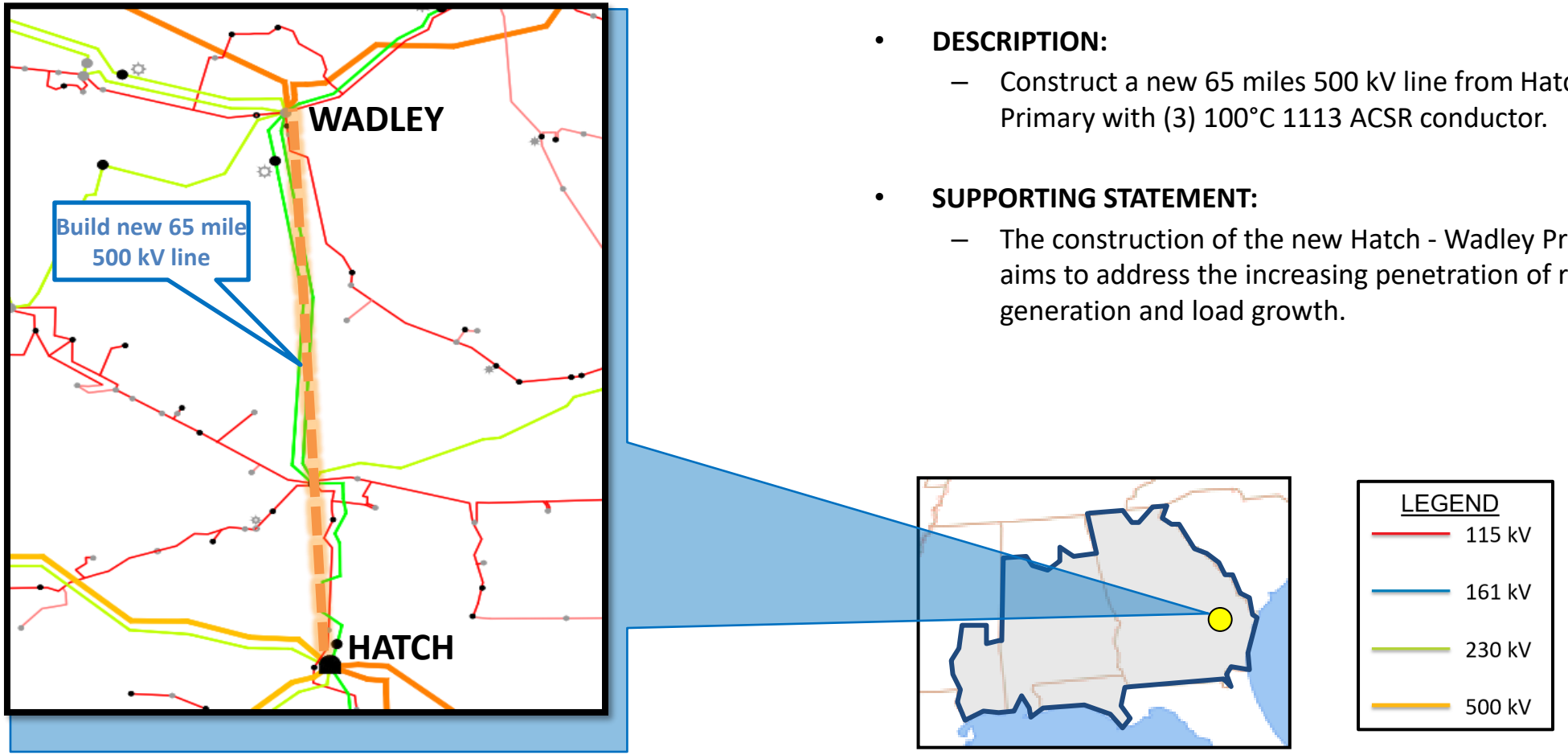
- **DESCRIPTION:**
  - Replace the Bowen #10 500/230 kV autotransformer with higher rated autotransformer.
- **SUPPORTING STATEMENT:**
  - The Bowen #10 500/230 kV autotransformer overloads under contingency.

SOUTHERN Balancing Authority Area

SOUTHERN

• **2031**

SOCO: HATCH - WADLEY 500 KV LINE STRATEGIC PROJECT



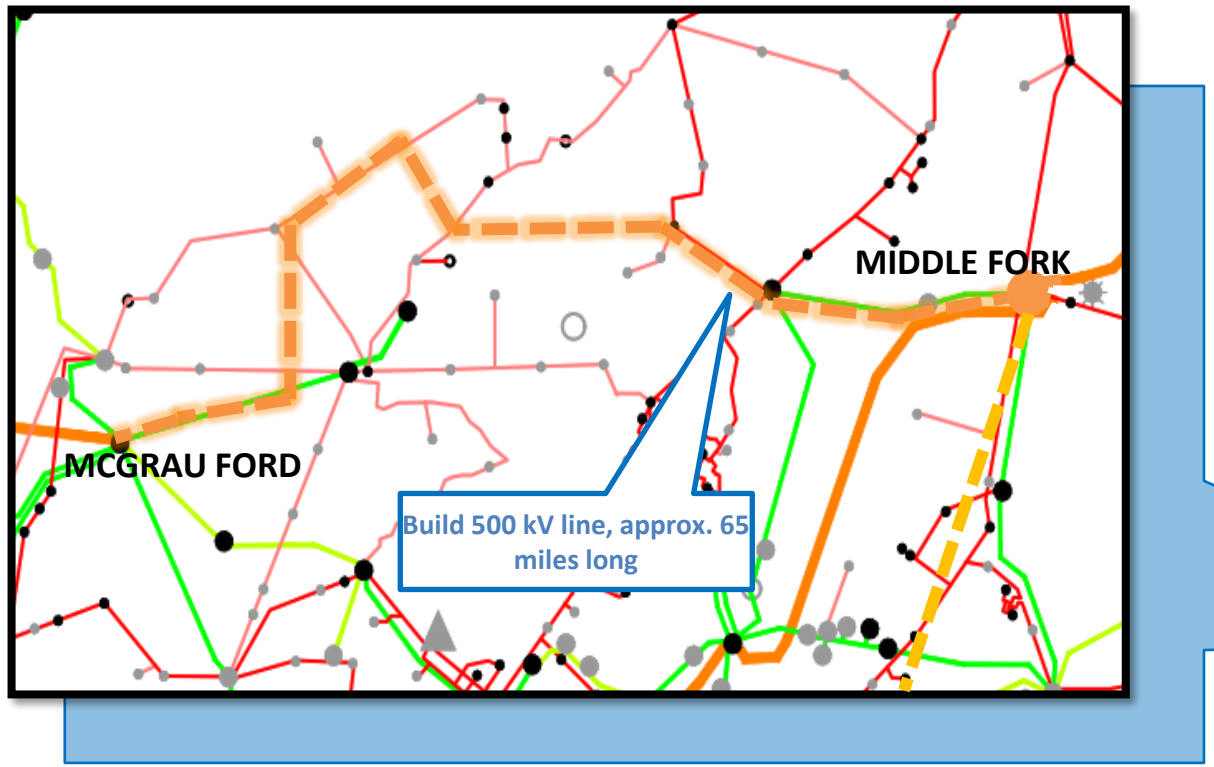
- **DESCRIPTION:**
  - Construct a new 65 miles 500 kV line from Hatch - Wadley Primary with (3) 100°C 1113 ACSR conductor.
- **SUPPORTING STATEMENT:**
  - The construction of the new Hatch - Wadley Primary 500 kV line aims to address the increasing penetration of renewable generation and load growth.

SOUTHERN Balancing Authority Area

SOUTHERN

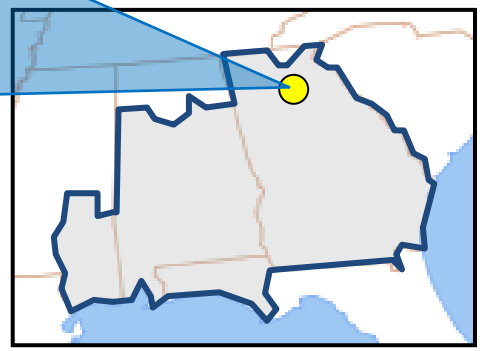
• **2033**

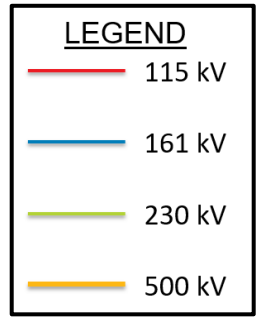
SOCO: MCGRAU FORD – MIDDLE FORK 500 KV



- **DESCRIPTION:**
  - Build a 65 miles long, 500 kV line from McGrau Ford to Middle Fork, with (3) 100°C 1113 ACSR conductor.
  - Add 2-500 kV breakers at McGrau Ford and and make accommodations for additional transmission line.
  - GTC: Build a new 500 kV switchyard at Middle Fork to terminate the new line.

- **SUPPORTING STATEMENT:**
  - This project reduces multiple 230 kV line loadings, resolves thermal overloads that occur under contingency, and provides additional operational and maintenance flexibility, which increases reliability.





TVA Balancing Authority Area

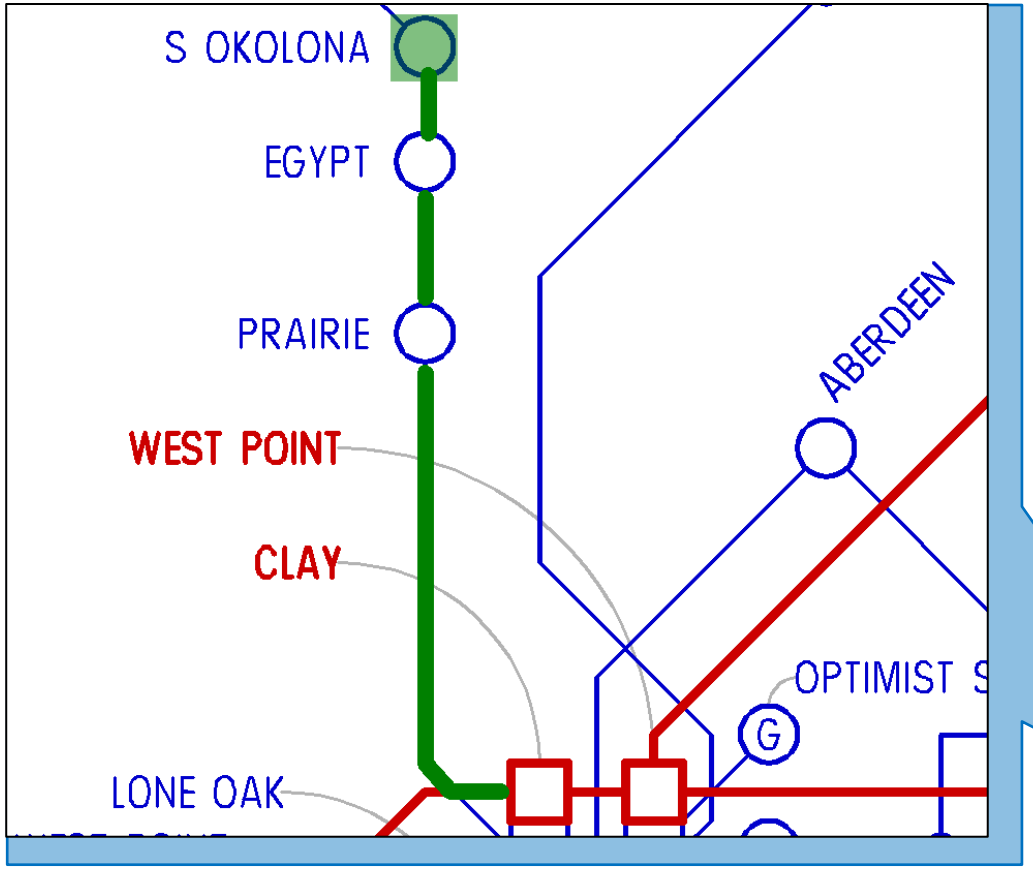
Regional Transmission Expansion Plan

TVA Balancing Authority Area

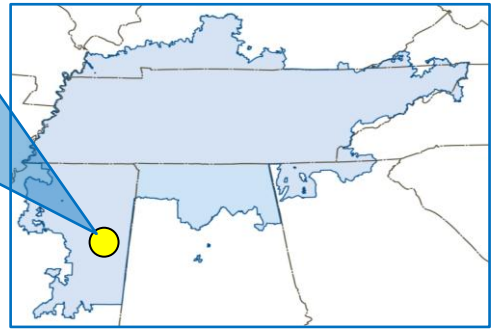
TVA

- **2027**

NEW CALEDONIA GAS



- **DESCRIPTION:**
  - Clay - Prairie 161 kV TL rebuild 11.54 miles and reconductor 0.23 miles. Prairie - Egypt MS rebuild 4.61 miles. Egypt - Okolona reconductor 9.36 miles and bus and jumper replacement at Okolona.
- **SUPPORTING STATEMENT:**
  - New Caledonia CT is adding 520 MW summer (610 MW winter) at the Lowndes 161 kV bus. Plant causes thermal overload on Clay to Okolona line.

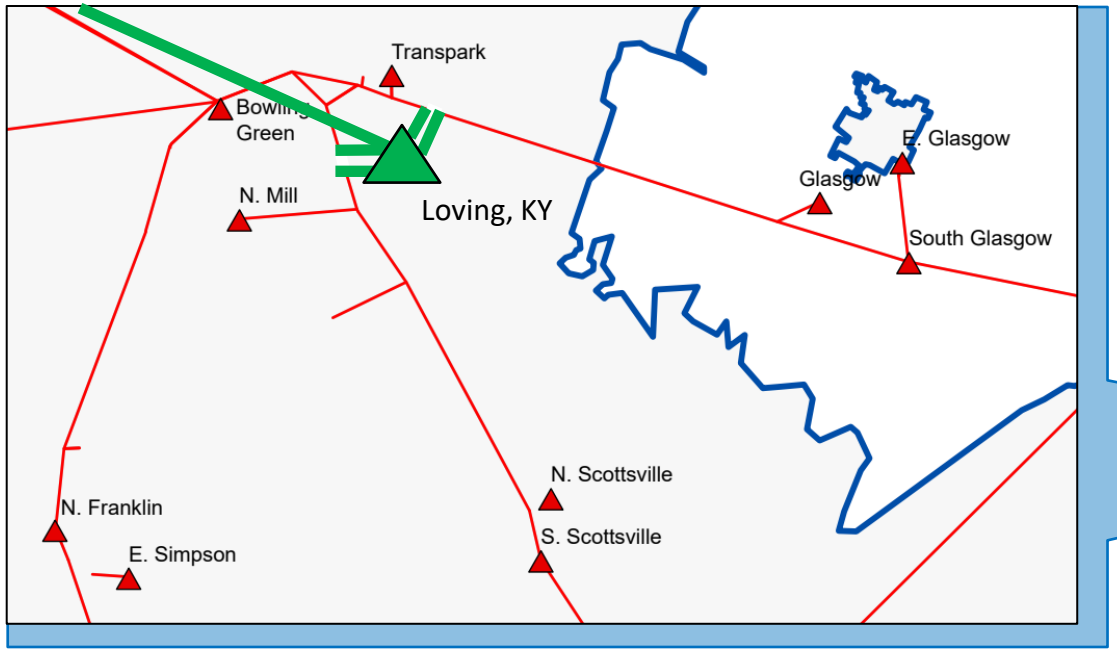


TVA Balancing Authority Area

TVA

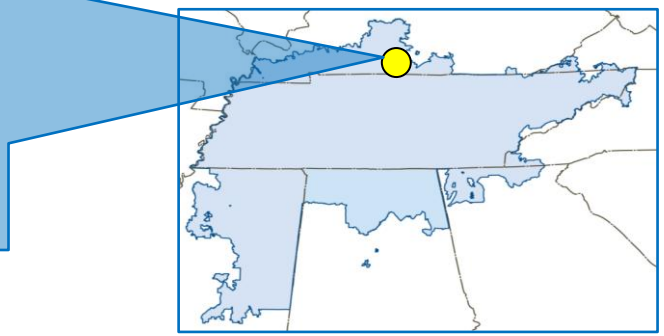
• **2027**

LOVING, KY 161 KV STATION



- **DESCRIPTION:**
  - Construct the Loving, KY 161 kV Substation. Reconductor approximately 26.71 miles of transmission line from Bowling Green to Lost City with 1351 ACSS at 140°C. Reconductor approximately 8.64 miles of transmission line from Bowling Green to East Bowling Green with 1351 ACSS at 135°C.

- **SUPPORTING STATEMENT:**
  - Additional voltage support & thermal capacity is needed in the Bowling Green area for economic development.

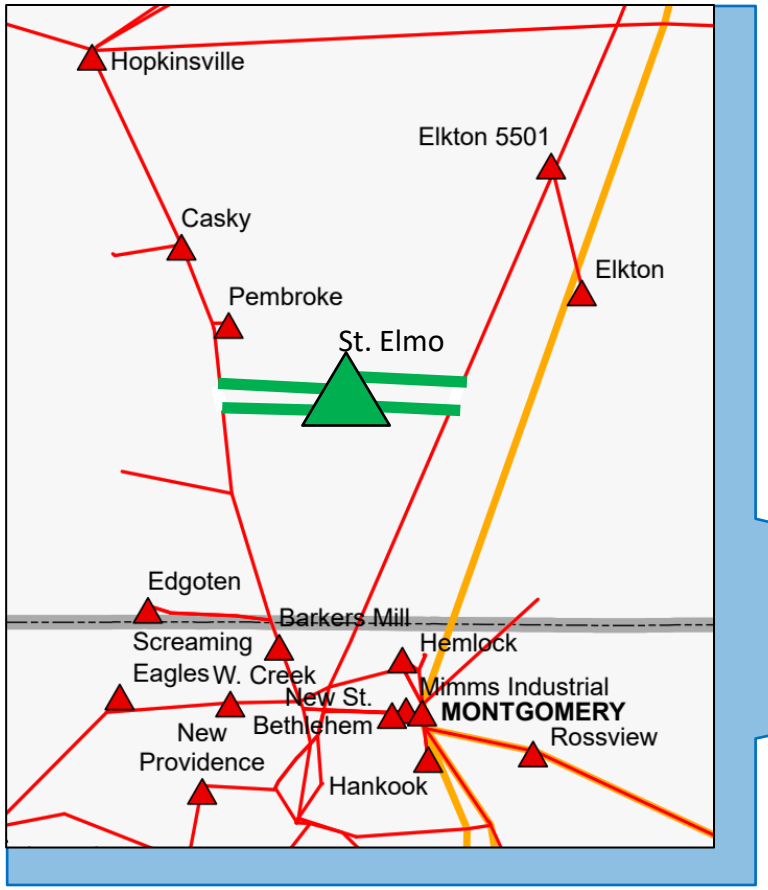


TVA Balancing Authority Area

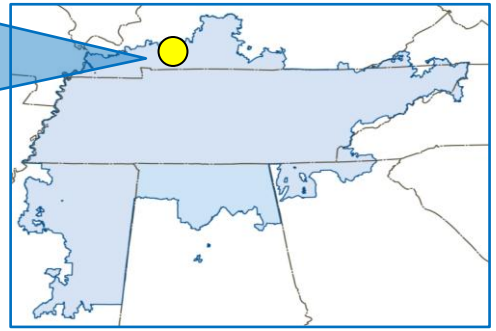
TVA

• **2027**

ST. ELMO, KY 161 KV SUBSTATION



- **DESCRIPTION:**
  - Construct the St. Elmo KY 161 kV and loop in the Casky - Edgoten line and the Paradise - Clarksville line.
- **SUPPORTING STATEMENT:**
  - Voltage support and additional thermal capacity is needed for economic development in the area.

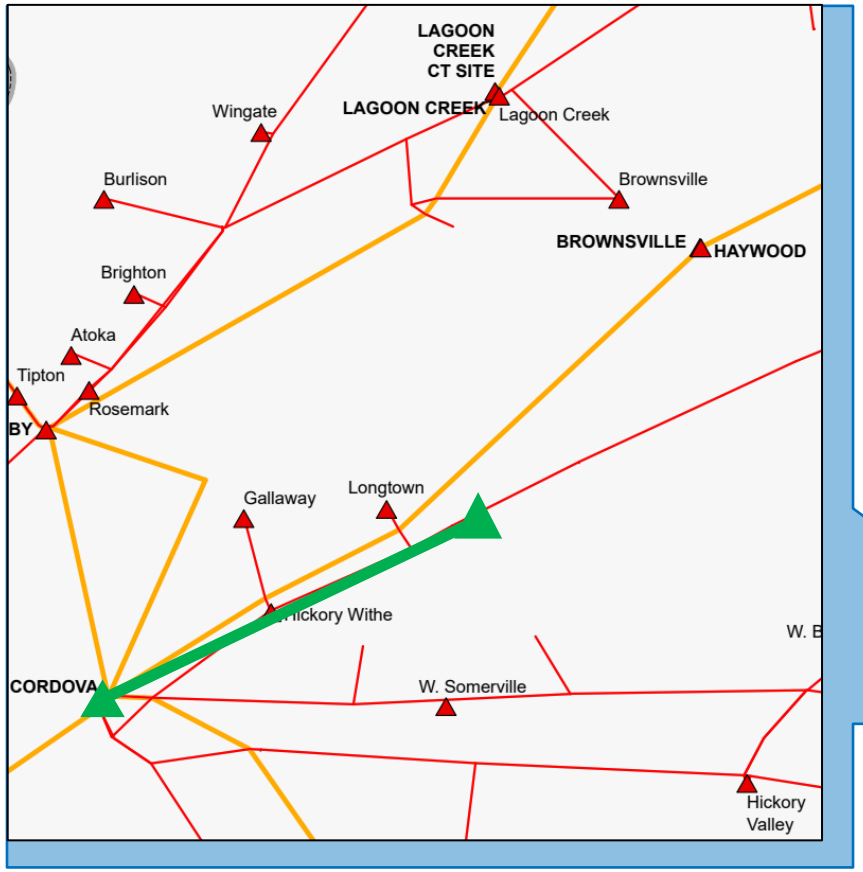


TVA Balancing Authority Area

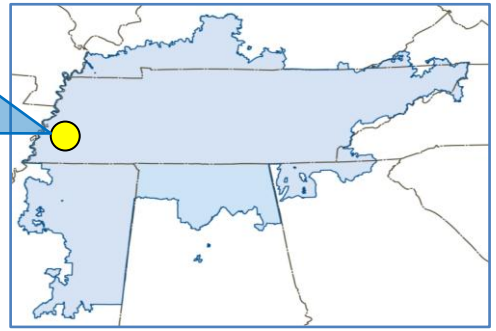
TVA

- **2027**

CORDOVA - YUM YUM TL 161 KV 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.

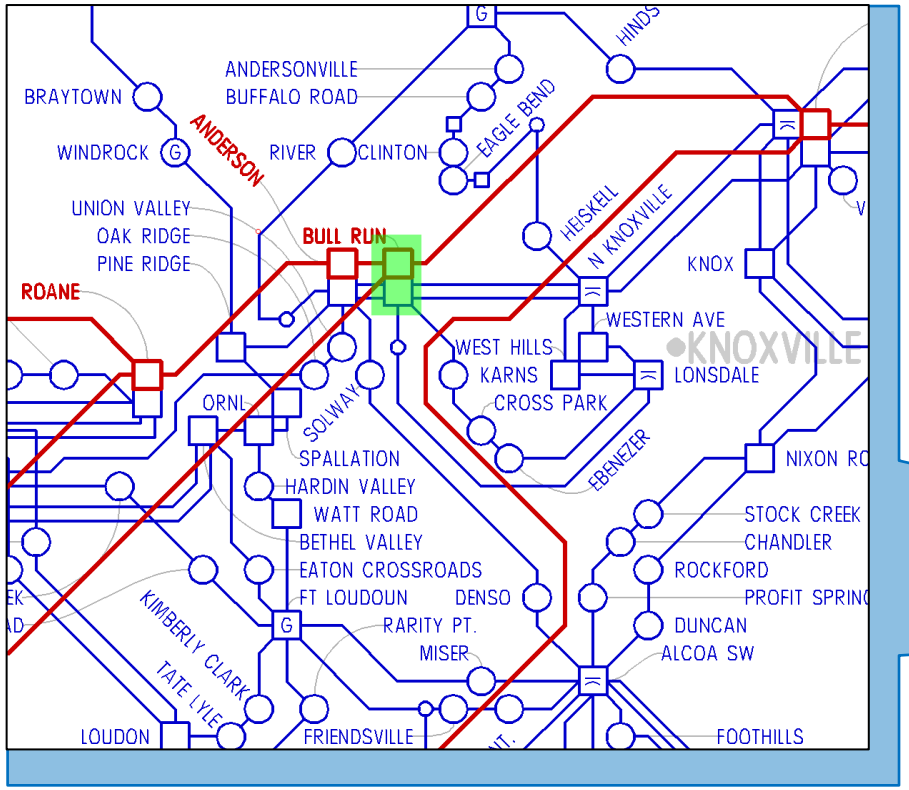


TVA Balancing Authority Area

TVA

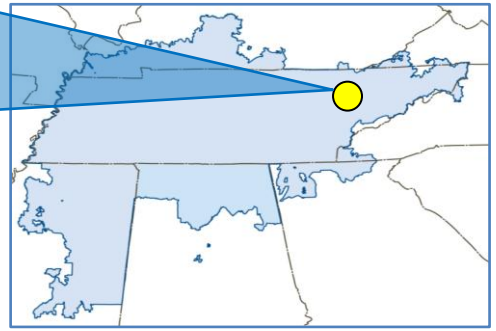
- **2027**

BULL RUN SYNCHRONOUS CONDENSER



- **DESCRIPTION:**
  - TVA to install Breaker, Switches, Relaying and metering to support synchronous condensing units at Bull Run 500 kV.

- **SUPPORTING STATEMENT:**
  - Voltage support and additional capacity is needed for economic development in the area.

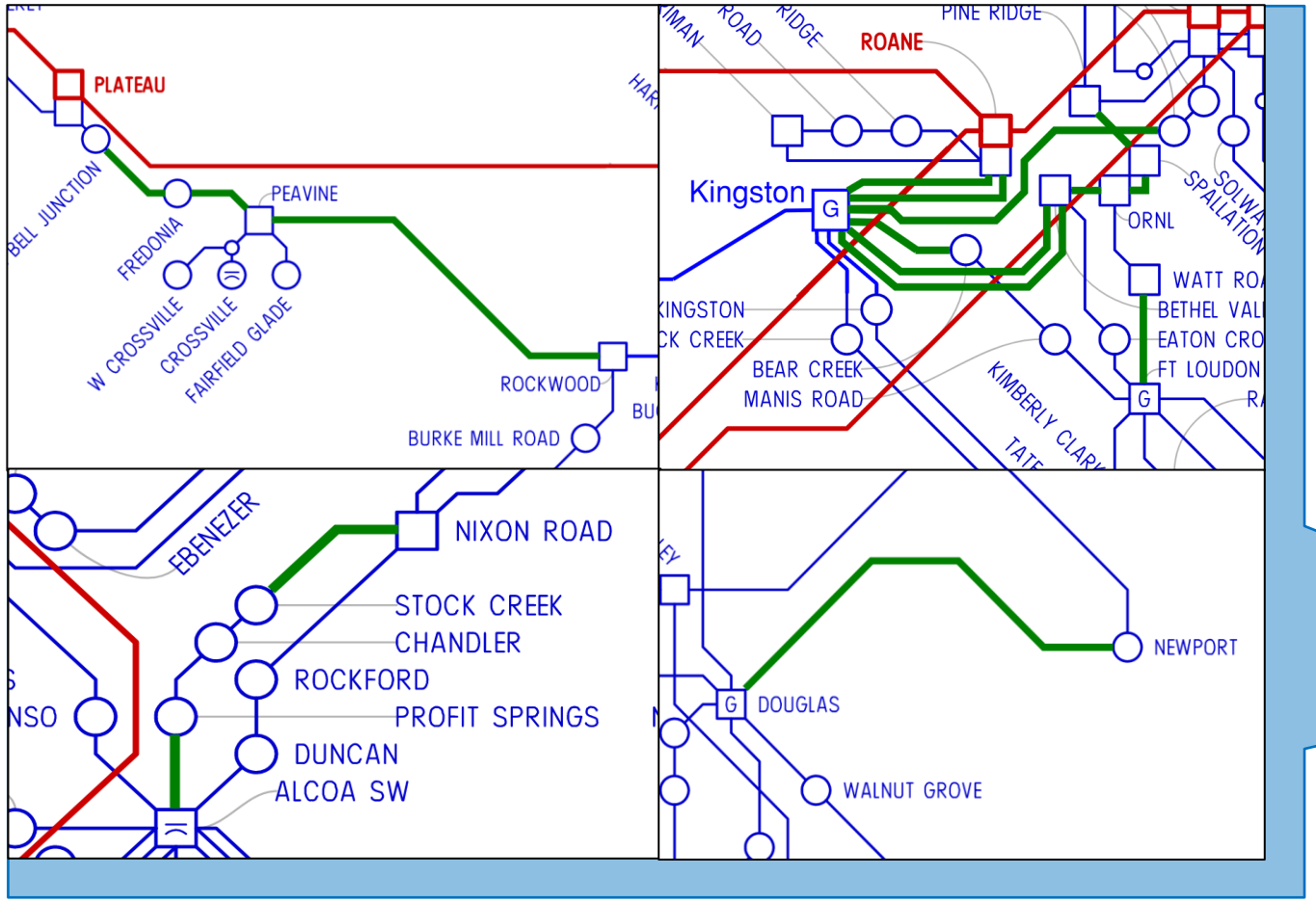


TVA Balancing Authority Area

TVA

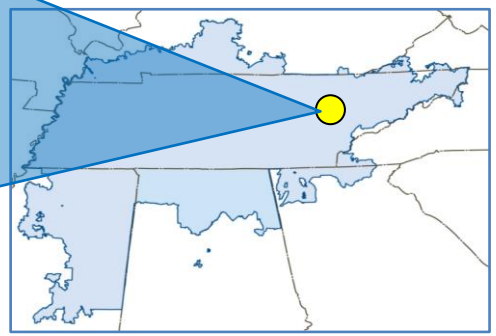
• **2027**

KINGSTON CC & AERODERIVATIVE CT GENERATION INTERCONNECTION



- **DESCRIPTION:**
  - Construct new 161 kV station to interconnect new natural gas fired CC and Aeroderivative generation. Loop in area 161 kV TLs. Reconductor/uprate fifteen existing 161 kV TLs to increase the thermal rating of each.

- **SUPPORTING STATEMENT:**
  - Scope is driven by the interconnection of new generation. This is Q489 in TVA's Interconnection Queue which is publicly available on TVA's OASIS.

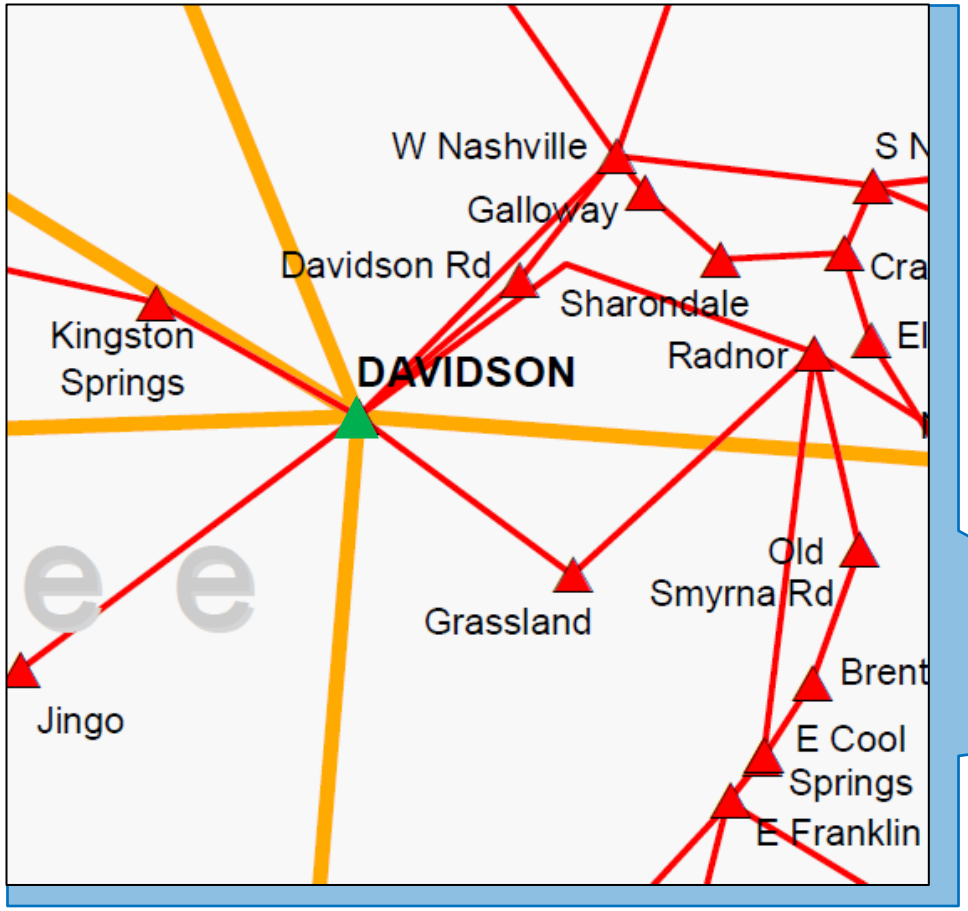


TVA Balancing Authority Area

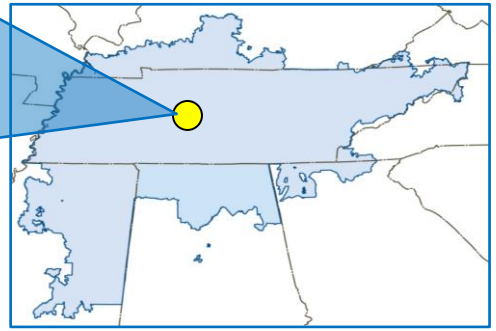
TVA

- **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.

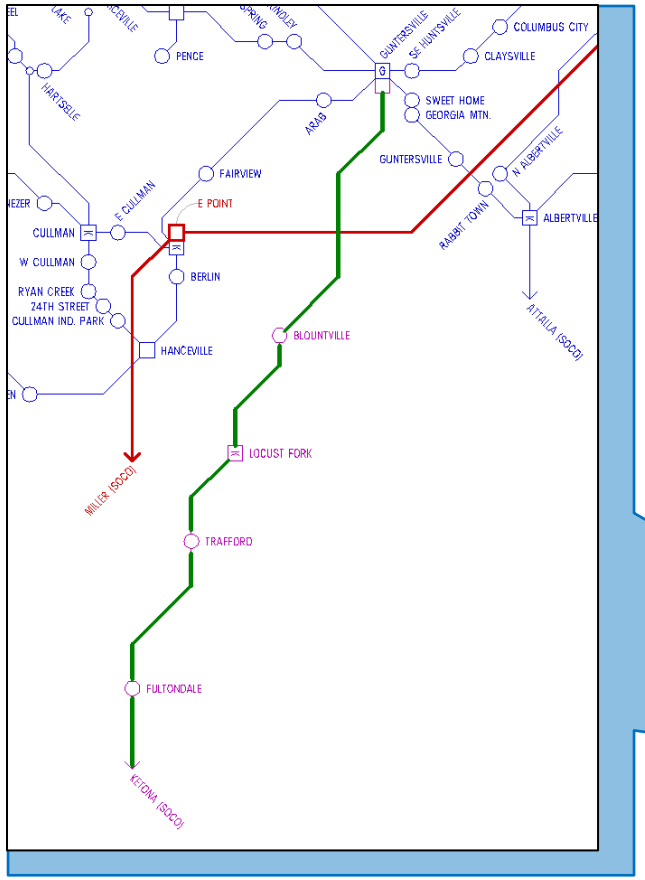


TVA Balancing Authority Area

TVA

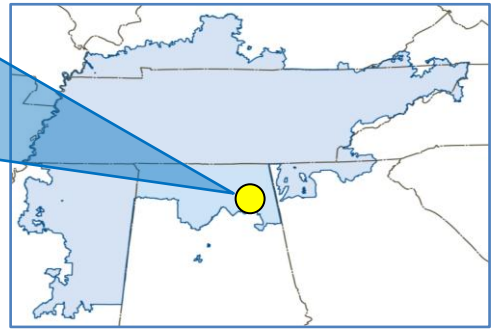
- **2029**

GUNTERSVILLE – KETONA 115 KV TL REBUILD



- **DESCRIPTION:**
  - Rebuild portions of the TVA Guntersville Hydro - AL Power Ketona 115 KV transmission line with single circuit 954 ACSR at 100°C.

- **SUPPORTING STATEMENT:**
  - Additional thermal capacity is needed in the area under contingency.

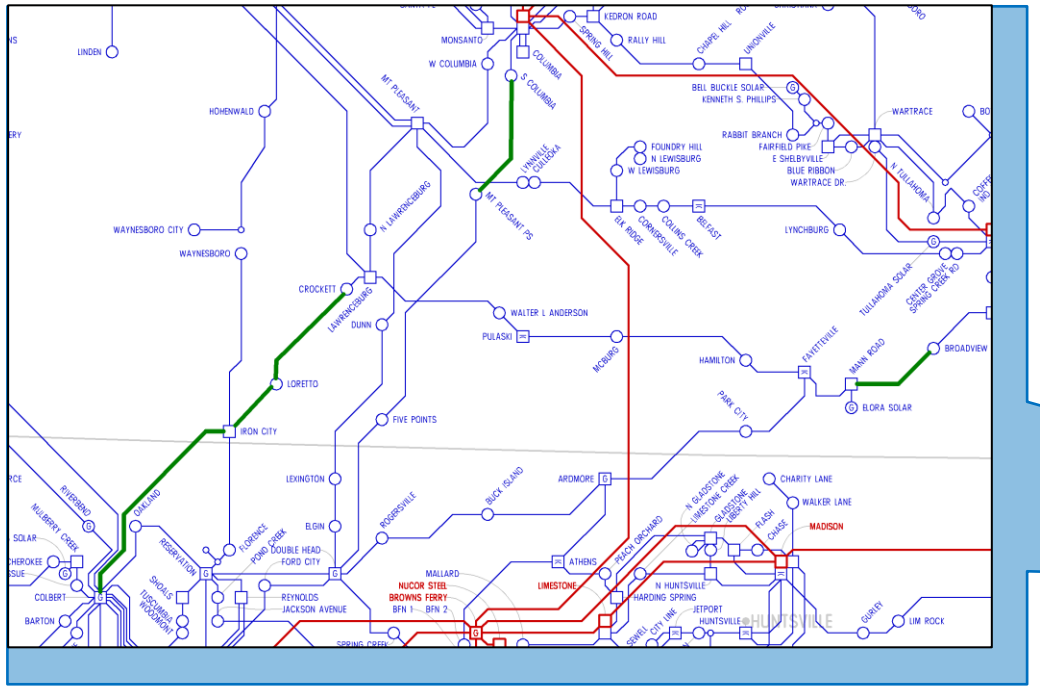


TVA Balancing Authority Area

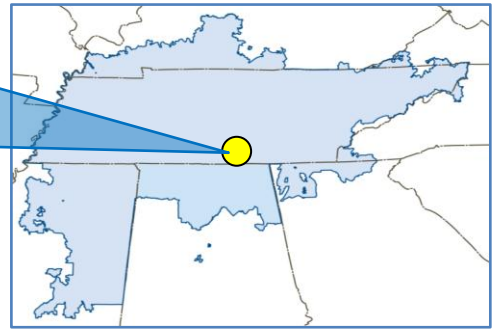
TVA

• 2030

Hillsboro III Generation Upgrades



- **DESCRIPTION:**
  - Reconductor Colbert – Iron City, Iron City – Loretto, Loretto – Crockett, Mt. Pleasant – S. Columbia & Mann Road – Broadview Tap 161 kV TLs. Approx 75 mi of total TL.
- **SUPPORTING STATEMENT:**
  - Scope is driven by the interconnection of new generation. This is Q385 in TVA's Interconnection Queue which is publicly available on TVA's OASIS.

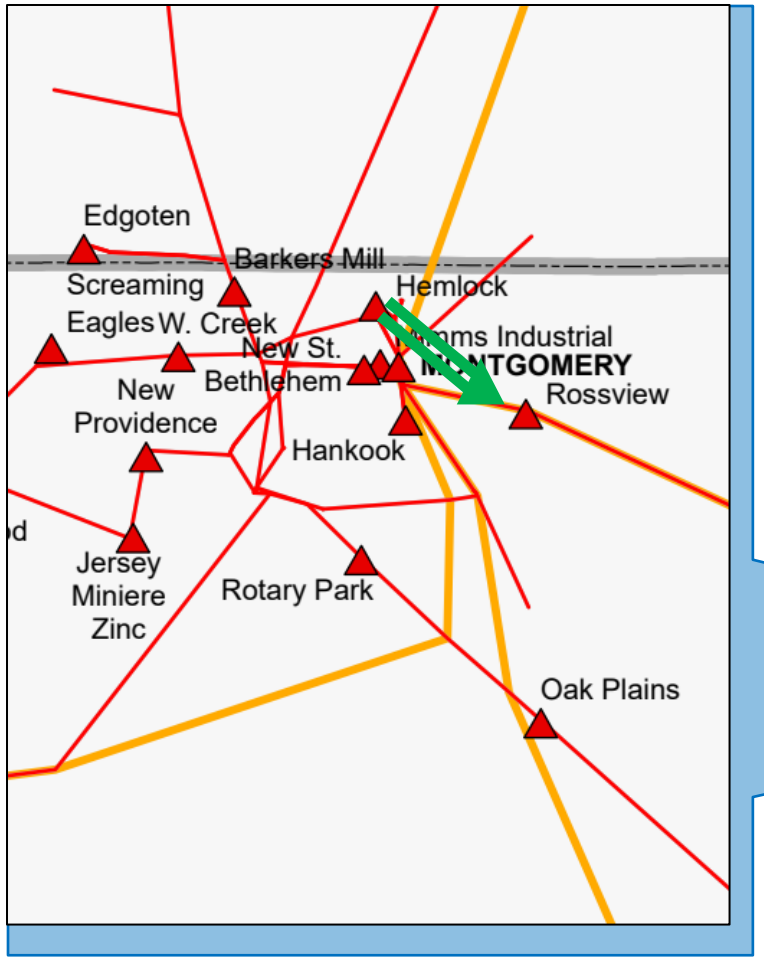


TVA Balancing Authority Area

TVA

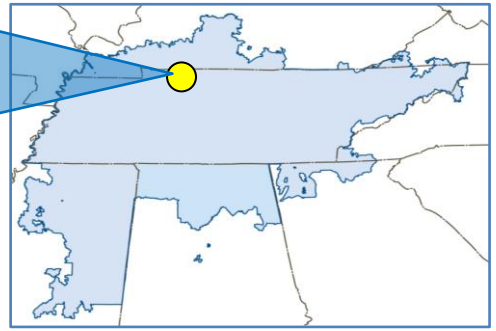
- **2030**

HAMPTON 500 KV STATION



- **DESCRIPTION:**
  - Construct new 500/161 kV Hampton station. Loop in existing Montgomery-Wilson 500 kV line (approximately 0.1 mile from station to loop point). Loop in existing double circuit 161 kV 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.

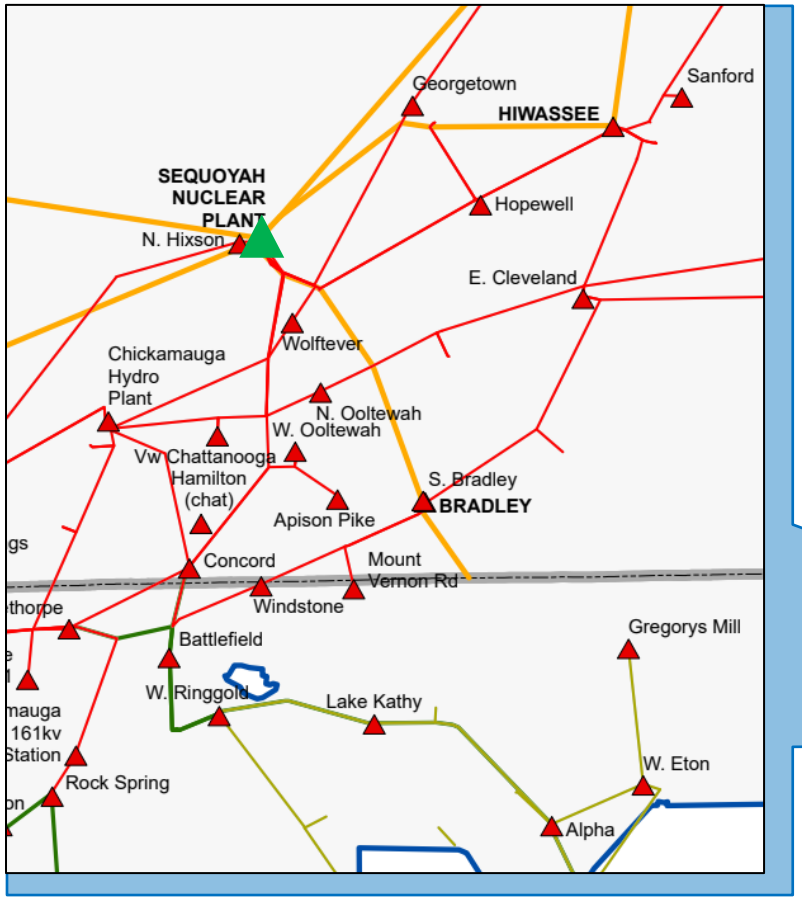


TVA Balancing Authority Area

TVA

- **2031**

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:**
  - New revision of the TPL expands the single point of failure which results in violations at Sequoyah.

