Appendix B – Project Release

- Project Release: East Walton Project – 230 kV Portion: Georgia Transmission Corporation. (GTC), Tucker, GA, February 6, 2023.
- Project Release: East Walton Project – 500 kV Portion: Georgia Transmission Corporation. (GTC), Tucker, GA, April 5, 2018.

GeorgiaTransmission

PROJECT RELEASE

Planning Contact: DAWN JONES DS DJJ

Need Date: 6/1/2027

East Walton 500/230 kV Projects: 230 kV Portion

GTC Projects:

C81682 East Social Circle-East Watkinsville 230 kV Transmission Line

C81721 Bethabara 230/115/25 kV Substation

P79466 Bostwick 230 kV Switching Station

P79467 Bethabara - East Walton 230 kV Transmission Line

P79468 Bostwick - East Walton 230 kV Transmission Line

P79469 East Walton - Jacks Creek 230 kV Transmission Line

Justification:
The addition of new solar facilities, changes in generation, and evolving interregional flow patterns are resulting in constraints on area transmission facilities. Several 230 kV transmission lines are projected to overload under contingency beginning in 2026.

Please see attached justification for additional details on problem statements and project identification.

Peer Review:	Approved By: DocuSigned by: Thomas H Leslie 75D8C81E245C425...	Date: 2/6/2023

Cost Summary

	Total Budget	Retirement	Reimbursement	TSF	DSF	ITS INV
Totals:	$97,000,000	$0	$0	$0	$0	$97,000,000

GTC Projects

C81682 **Cut in:** 6/01/2027

Operational Name: East Social Circle-East Watkinsville 230 kV Transmission Line
Customer:
Region: Northeast
County: MORGAN, OCONEE, WALTON
Project Manager: JAMES FARMER
Description: Modify T/L
Scope: Loop East Social Circle - East Watkinsville 230 kV line into the new Bostwick substation.

Total Budget	Retirement	Reimbursement	DSF	ITS INV
$500,000	$0	$0	$0	$500,000

C81721 **Cut in:** 6/01/2027

Operational Name: Bethabara 230/115/25 kV Substation
Customer:
Region: Northeast
County: OCONEE, WALTON
Project Manager: JAMES FARMER
Description: Scope: General Substation Modification
Install (2) 230 kV PCBs to create a 3-element 230 kV ring bus and terminate one 230 kV line from East Walton.

Total Budget	Retirement	Reimbursement	DSF	ITS INV
$5,000,000	$0	$0	$0	$5,000,000

ITS Member Feeder Information

# of Feeders: 0 **Regulator Size:** 0
Overhd/Undergrd: NA **Oper. Voltage:** NA

P79466 **Cut in:** 6/01/2027

Operational Name: Bostwick 230 kV Switching Station
Customer:
Region: Northeast
County: WALTON
Project Manager: KEVIN DIEDRICK
Description: New Substation
Scope: Construct a new 4 element 230 kV ring bus switching station looped into the East Social Circle - East Watkinsville 230 kV line. Terminate new 230 kV Bostwick - East Walton circuit.

Total Budget	Retirement	Reimbursement	DSF	ITS INV
$7,500,000	$0	$0	$0	$7,500,000

ITS Member Feeder Information

# of Feeders: 0 **Regulator Size:** 0
Overhd/Undergrd: NA **Oper. Voltage:** NA

P79467 **Cut in:** 6/01/2027

Operational Name: Bethabara - East Walton 230 kV Transmission Line
Customer:
Region: Northeast
County: OCONEE, WALTON
Project Manager: JAMES FARMER
Description: New Transmission Line
Scope: Construct new 10 mile 230 kV line from East Walton substation to Bethabara substation with 1351 ACSS designed for 170°C operation.

Total Budget	Retirement	Reimbursement	DSF	ITS INV
$35,000,000	$0	$0	$0	$35,000,000

P79468 **Cut in:** 6/01/2027

Operational Name: Bostwick - East Walton 230 kV Transmission Line
Customer:
Region: Northeast
County: MORGAN, WALTON
Project Manager: KEVIN DIEDRICK
Description: New Transmission Line
Scope: Construct new 5 mile 230 kV line from East Walton substation to Bostwick 230 kV switching station substation with 1351 ACSS designed for 170°C operation.

Total Budget	Retirement	Reimbursement	DSF	ITS INV
$17,500,000	$0	$0	$0	$17,500,000

P79469 **Cut in:** 6/01/2027

Operational Name: East Walton - Jacks Creek 230 kV Transmission Line
Customer:
Region: Northeast
County: OCONEE, WALTON
Project Manager: GREGORY (GREG) STARKS
Description: New Transmission Line
Scope: Construct new 9 mile 230 kV line from East Walton to a new MEAG owned Jack's Creek substation with 1351 ACSS conductor designed for 170°C operation.

Total Budget	Retirement	Reimbursement	DSF	ITS INV
$31,500,000	$0	$0	$0	$31,500,000

East Walton Projects
Scoping Meeting Minutes

Date: 1/5/2023
Location: Webex/Conference Room 320

Attendees:

Name	Department	Name	Department
Jerry White	Construction Inspection	Jeremiah Woody	System Reliability
Blake Brinkley	Construction Inspection	Dawn Jones	Bulk Planning
Craig Heighton	External Affairs	Addis Kifle	Protection Control
Ryan Jackson	Transmission Projects	Josh Knight	Member Planning
Ian Miller	Transmission Projects	Laura Suber	Merrick
Andrew Morgan	Bulk Planning	BJ Parkerson	Construction Inspection
Levi Bennett	Bulk Planning	Obi Okwandu	Project Controls
James Billingsley	Construction Inspection	Ashok Padman	T/L Design
Fred Bowers	Cyber Security	Daniel Phillips	Electronic Maintenance
Nate Brex	Protection Control	Ishaq Saima	Bulk Planning
Jeffrey Brogdon	Protection Control	Austin Sheppard	Relay Maintenance
Robert Casey	Member Planning	Larra Stansbury	T/L Design
Kevin Diedrick	Transmission Projects	Thomas Leslie	Bulk Planning
Ron Frazier	System Reliability	Ty King	T/L Maintenance
Tim Harben	Project Controls	Jerome Vinson	Bulk Planning
Joey Heath	Member Planning	Jordan Webb	Member Relations
Heather Ahrens	Environmental	Rob Wiley	Bulk Planning
Susan Ingall	Project Controls	Ken Wofford	Bulk Planning
Chris Smith	Environmental	Andy Yap	Project Controls
Lance Djibo	Bulk Planning	Melvin Dillard	Relay Maintenance
Joseph Cathey	Member Planning	Lindberg Sweatmon	Transmission Projects
James Farmer	Transmission Projects	Terry Buttrill	External Affairs
Anne Lerner	External Affairs	Derek Hughes	Substation Design
Danny Cortese	Substation Design	Daniel Lascau	Relay & Control
Chip Buttrill	Substation Design	Camron Carden	Transmission Projects
Quan Fan	T/L Design	Robert Fede	Member Planning
Tony Chaapel	Land Services	Dwaine Wright	Land Services
Dawn Jones	Bulk Planning		

Bethabara 230/115 kV Substation

Project #: C81721

Cut-in Date: 6/1/27

Scope: Install (2) 230 kV PCBs to create a 3-element 230 kV ring bus and terminate one 230 kV line from East Walton.

Substation Discussion:

- **General**
  - On site meeting will be held late Jan/early Feb to determine the following:
    - Existing substation footprint can accommodate the 230 kV ring bus
    - Control house size

- **Construction & Outage**
  - Project construction TBD
    - Outage duration will be based on final design
    - Member Planning will communicate with Walton EMC once construction/outage time is identified

- **230 kV Equipment**
  - Install (2) 230 kV 3000A, 40 kA PCBs and associated switches
  - Terminate the Bethabara – East Walton 230 kV T/L
    -
  - Existing 2000A equipment does not require attention at this time (2008 vintage)

- **Miscellaneous**
  - The modifications to Bethabara will not impact the current CIP classification
  - Substation Design to reevaluate the ground grid due to increased fault current
    - Substation Design to determine if separate ground grid study efforts are needed at area substations.

Bethabara - East Walton 230 kV T/L

Project #: P79467

Cut-in Date: 6/1/27

Scope: Construct an approximately 10-mile 230 kV line from the East Walton 500/230 kV substation to Bethabara 230/115 kV substation.

Discussion:

- ROW mostly acquired under Bethabara - East Walton ALP project P79050
- Line length will be 10miles
- The conductor type will be 1351 ACSS 170^{o}C
- 144 count OPGW is assumed

TINs/PCDs:

- None required

Estimating:

- Bulk planning will produce the estimate.
  - ~~Estimate uses a line build assumption of $3.5M per mile to determine overall project cost~~.
  - Projects and T/L Design to create assumptions for estimating purposes

Bostwick 230 kV Switching Station

Project #: P79466/C81682

Cut-in Date: 6/1/27

Scope:

P79466: Construct a new 3 element 230 kV ring bus switching station. Terminate new 230 kV Bostwick East Walton circuit.

C81682: Loop the East Social Circle – East Watkinsville 230 kV line into Bostwick 230 kV switching station

T/L Discussion:

- Land has been acquired
- T/L clearance required
- The station will be located near structure 52 along the GTC owned East Social Circle – East Watkinsville 230 kV T/L

Substation Discussion:

- General
  - Land has been acquired under the Bostwick ALP project P79137
  - Allow room for a distribution bank for Walton EMC
    - Scoping activities to follow at a later date

- 230 kV Equipment
  - Install (4) 230 kV 3000A, 40 kA PCBs and associated switches
  -
- CIP Classification
  - Low impact
  - Installed equipment: Card reader on control house, cameras

Bostwick - East Walton 230 kV T/L

Project #: P79468

Cut-in Date: 6/1/27

Scope: Construct an approximately 5-mile 230 kV line from the East Walton 500/230 kV substation to Bostwick 230 kV switching station.

Discussion:

- ROW acquired under Bostwick - East Walton ALP project P78860
- Line length will be 5 miles
- The conductor type will be 1351 ACSS 170^{o}C
- 144 count OPGW is assumed

TINs/PCDs:

- None required

Estimating:

- Bulk planning will produce the estimate.
  - ~~Estimate uses a line build assumption of $3.5M per mile to determine overall project cost.~~
  - Projects and T/L Design to create assumptions for estimating purposes

East Walton – Jacks Creek 230 kV T/L

Project #: P79469

Cut-in Date: 6/1/27

Scope: Construct an approximately 9-mile 230 kV line from the East Walton 500/230 kV substation to Jacks Creek 230 kV switching station.

Discussion:

- ROW acquired under East Walton – Jacks Creek ALP project P79060
- Line length will be 9 miles
- The conductor type will be 1351 ACSS 170^{o}C
- 144 count OPGW is assumed

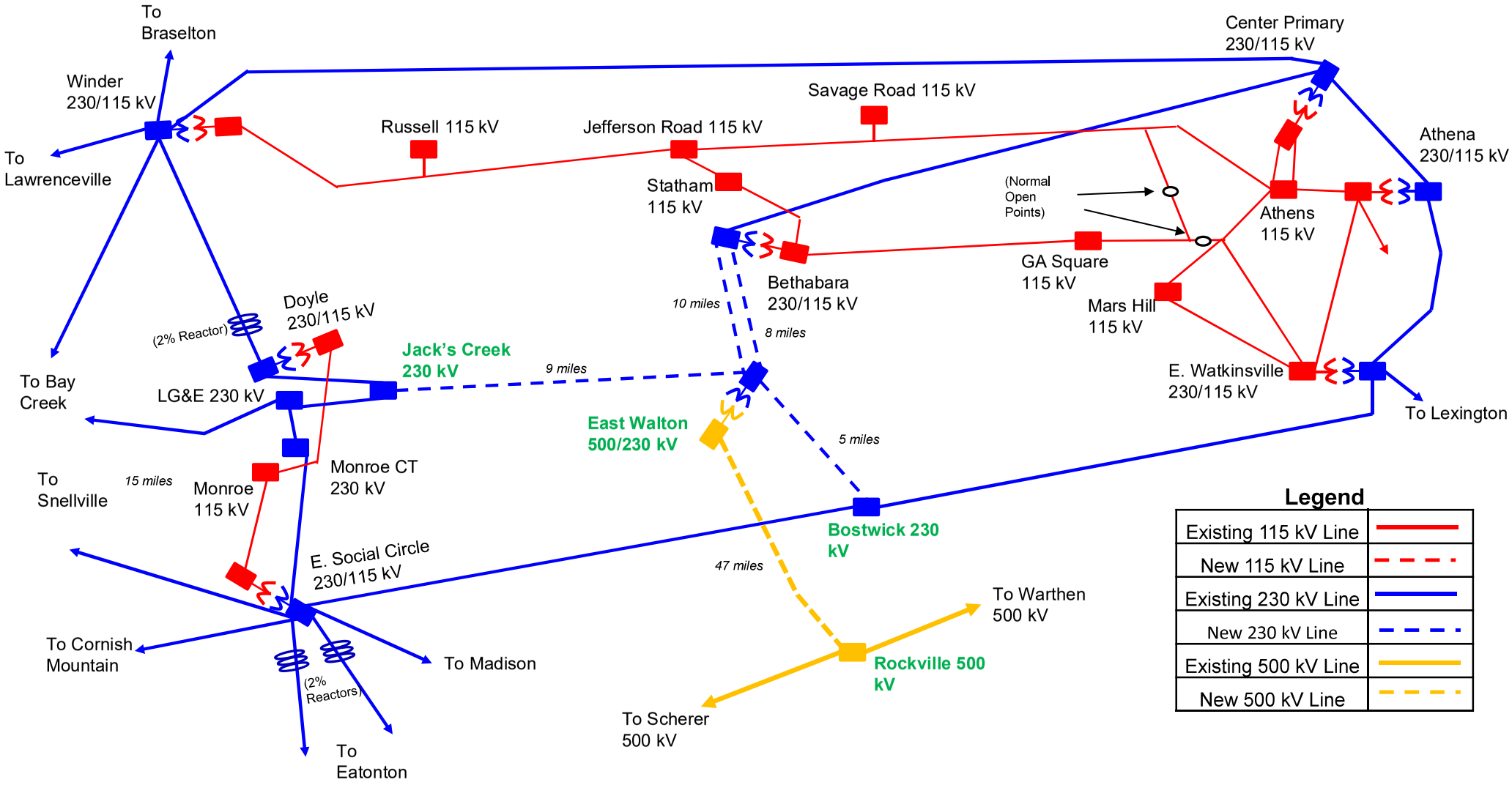
TINs/PCDs:

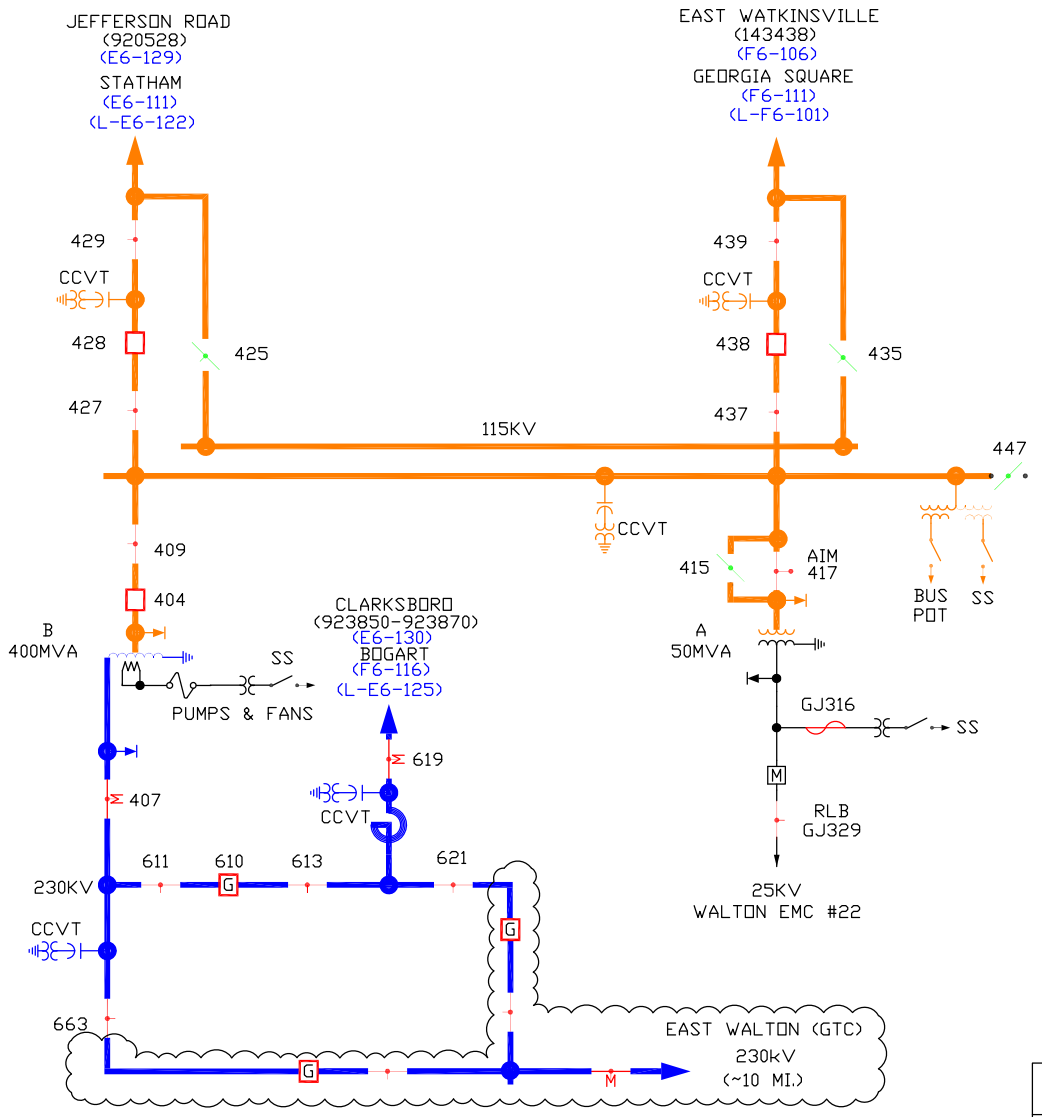
- None required

Estimating:

- Bulk planning will produce the estimate.
  - ~~Estimate uses a line build assumption of $3.5M per mile to determine overall project cost.~~
  - Projects and T/L Design to create assumptions for estimating purposes

East Walton 500/230 kV Project





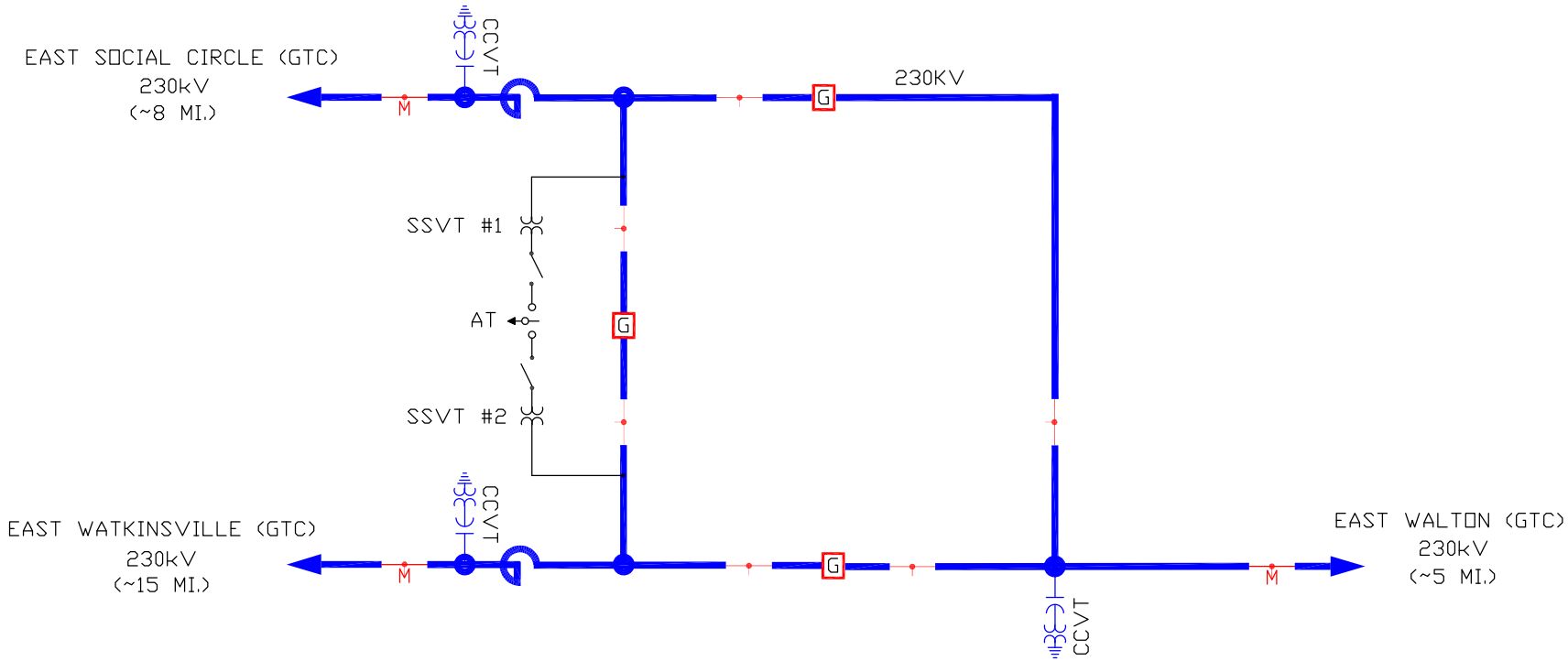
115KV SW. NO. PREFIX 911

GEORGIA INTEGRATED TRANSMISSION SYSTEM
SUBSTATION DIAGRAM

BETHABARA (GTC)

Drawn: 06-01-07 | Revised: 01-10-23

SHEET NO. F6-113

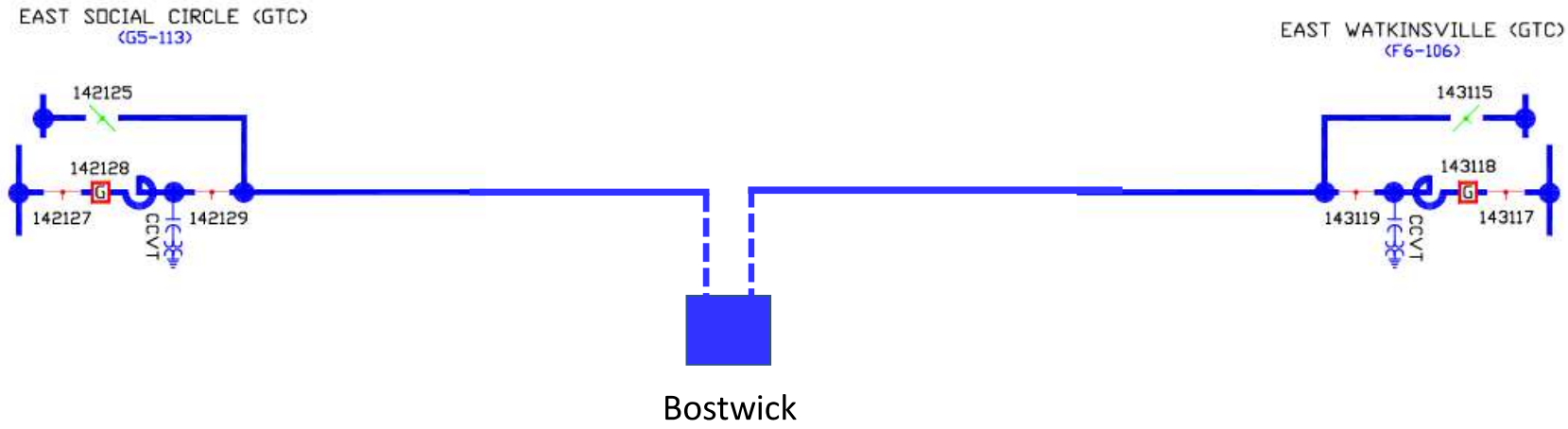


SW. NO. PREFIX XXX

GEORGIA INTEGRATED TRANSMISSION SYSTEM
SUBSTATION DIAGRAM

BOSTWICK (GTC)

Drawn: 01-10-23 | Revised:



GEORGIA INTEGRATED TRANSMISSION SYSTEM
SUBSTATION DIAGRAM

EAST SOCIAL CIRCLE -
EAST WATKINSVILLE 230KV

Drawn: 01-05-98 | Revised: 06-12-18 CDH

SHEET NO. L-G5-103

Planning Grade Estimate

2/1/2023

Project Name: Bethabara - East Walton 230 kV Line
Project Number: P79467
Scope: Construct new 10 miles of 230 kV line from East Walton to Bethabara substation with (1) 1351 ACSS conductor for 170 degree C operation. (See Project # P79050 for the ALP.)

Project Cut-In Date 6/1/2027

Direct Charges	
EC 50 - Construction Contract Labor	$12,239,966.22
EC 64 - Owner Furnished Material	$8,457,795.42
Land	$0.00
Labor (40 & 54)	$1,823,592.07
EC 56 - Professional Services	$2,348,887.58
Legal	$212,145.26
Other	$117,613.45
Project Contingency & Escalation	$2,799,999.72
Total Direct Cost	**$28,000,000**
Indirect (overheads)	**$7,000,000**
Total Project Cost	**$35,000,000**
Retired Asset Value	$0
ITS Investment	$35,000,000
DSF Investment	$0
TSF Investment	$0
Net Change to Facility Investment	**$35,000,000**

Assumptions:

1. Estimate based on an estimate of $3.5M per mile provided by Transmission Projects
2. Contingency costs set at 10% of direct costs. Cost is intended to cover high level nature of planning grade estimates.
3. Indirect cost assumptions include 25% of direct costs.

Planning Grade Estimate

2/1/2023

Project Name: Bostwick - East Walton 230 kV Line
Project Number: P79468
Scope: Construct new 5 miles of 230 kV line from East Walton to Bostwick 230 kV Switching Station with (1) 1351 ACSS conductor for 170 degree C operation. (See Project # P78860 for the ALP.)

Project Cut-In Date 6/1/2027

Direct Charges	
EC 50 - Construction Contract Labor	$6,119,983.11
EC 64 - Owner Furnished Material	$4,228,897.71
Land	$0.00
Labor (40 & 54)	$911,796.04
EC 56 - Professional Services	$1,174,443.79
Legal	$106,072.63
Other	$58,806.72
Project Contingency & Escalation	$1,399,999.86
Total Direct Cost	**$14,000,000**
Indirect (overheads)	**$3,500,000**
Total Project Cost	**$17,500,000**
Retired Asset Value	$0
ITS Investment	$17,500,000
DSF Investment	$0
TSF Investment	$0
Net Change to Facility Investment	**$17,500,000**

Assumptions:

1. Estimate based on an estimate of $3.5M per mile provided by Transmission Projects
2. Contingency costs set at 10% of direct costs. Cost is intended to cover high level nature of planning grade estimates.
3. Indirect cost assumptions include 25% of direct costs.

Planning Grade Estimate

2/1/2023

Project Name: East Walton - Jacks Creek 230 kV Line
Project Number: P79469
Scope: Construct approximately 9 miles of 230 kV line from East Walton to a new MEAG 230 kV S/S (Jack's Creek) in the Monroe area with 1351 ACSS conductor for 170 degree C operation. (See Project # P79060 for the ALP.)

Project Cut-In Date 6/1/2027

Direct Charges	
EC 50 - Construction Contract Labor	$11,015,969.60
EC 64 - Owner Furnished Material	$7,612,015.88
Land	$0.00
Labor (40 & 54)	$1,641,232.87
EC 56 - Professional Services	$2,113,998.82
Legal	$190,930.73
Other	$105,852.10
Project Contingency & Escalation	$2,519,999.75
Total Direct Cost	**$25,200,000**
Indirect (overheads)	**$6,300,000**
Total Project Cost	**$31,500,000**
Retired Asset Value	$0
ITS Investment	$31,500,000
DSF Investment	$0
TSF Investment	$0
Net Change to Facility Investment	**$31,500,000**

Assumptions:

1. Estimate based on an estimate of $3.5M per mile provided by Transmission Projects
2. Contingency costs set at 10% of direct costs. Cost is intended to cover high level nature of planning grade estimates.
3. Indirect cost assumptions include 25% of direct costs.

Planning Grade Estimate

2/1/2023

Project Name: Bethabara 230/115/25 kV Substation
Project Number: C81721
Scope: Install (2) 230 kV PCBs to create a 3-element 230 kV ring bus and terminate one 230 kV line from East Walton.

Project Cut-In Date 6/1/2027

Direct Charges	
EC 50 - Construction Contract Labor	$1,600,904.56
EC 64 - Owner Furnished Material	$1,297,004.75
Land	$0.00
Labor (40 & 54)	$464,377.81
EC 56 - Professional Services	$232,206.20
Legal	$3,095.67
Other	$2,411.02
Project Contingency & Escalation	$400,000.00
Total Direct Cost	**$4,000,000**
Indirect (overheads)	**$1,000,000**
Total Project Cost	**$5,000,000**
Retired Asset Value	$0
ITS Investment	$5,000,000
DSF Investment	$0
TSF Investment	$0
Net Change to Facility Investment	**$5,000,000**

Assumptions:

1. Estimate based on an analogous estimating approach.McFarland (P89599) used as basis for determining EC values.
2. Contingency costs set at 10% of direct costs. Cost is intended to cover high level nature of planning grade estimates.
3. Indirect cost assumptions include 25% of direct costs.

Planning Grade Estimate 2/1/2023

Project Name: Bostwick 230 kV Switching Station
Project Number: P79466
Scope: Construct a new 3 element 230 kV ring bus switching station looped into the East Social Circle - East Watkinsville 230 kV Line. Terminate new 230 kV Bostwick - East Walton circuit with 230 kV breakers (at least 1600 A). (See P79137 for the ALP.)

Project Cut-In Date 6/1/2027

Direct Charges	
EC 50 - Construction Contract Labor	$2,401,356.84
EC 64 - Owner Furnished Material	$1,945,507.12
Land	$0.00
Labor (40 & 54)	$696,566.71
EC 56 - Professional Services	$348,309.30
Legal	$4,643.50
Other	$3,616.53
Project Contingency & Escalation	$599,999.94
Total Direct Cost	**$6,000,000**
Indirect (overheads)	**$1,500,000**
Total Project Cost	**$7,500,000**
Retired Asset Value	$0
ITS Investment	$7,500,000
DSF Investment	$0
TSF Investment	$0
Net Change to Facility Investment	**$7,500,000**

Assumptions:

1. Estimate based on an analogous estimating approach.McFarland (P89599) used as basis for determining EC values.
2. Contingency costs set at 10% of direct costs. Cost is intended to cover high level nature of planning grade estimates.
3. Indirect cost assumptions include 25% of direct costs.

GeorgiaTransmission

PROJECT RELEASE

Planning Contact: DAWN JONES DS DJJ

Need Date: 6/1/2027

East Walton 500/230 kV Projects: 500 kV Portion

GTC Projects:

P79463 East Walton-Rockville 500 kV Transmission Line

P79465 East Walton 500/230 kV Substation

Justification:

The addition of new solar facilities, changes in generation, and evolving interregional flow patterns are resulting in constraints on area transmission facilities. Several 230 kV transmission lines are projected to overload under contingency beginning in 2026.

Please see attached justification for additional details on problem statements and project identification.

Peer Review:	Approved By: DocuSigned by: Thomas H Leslie 75D8C81E245C425...	Date: 2/6/2023

Cost Summary

	Total Budget	Retirement	Reimbursement	TSF	DSF	ITS INV
Totals:	$283,900,000	$0	$0	$0	$0	$283,900,000

GTC Projects

P79463 **Cut in:** 6/01/2027

Operational Name: East Walton-Rockville Transmission Line
Customer:
Region: Northeast
County:
Project Manager: Ryan Jackson
Description: New Transmission Line
Scope: Construct new ~47 mile 500 kV line from the new East Walton substation to the new Rockville substation with 3-1113 ACSR conductor designed for 100°C operation.

Total Budget	Retirement	Reimbursement	DSF	ITS INV
$235,000,000	$0	$0	$0	$235,000,000

P79465 **Cut in:** 6/01/2027

Operational Name: East Walton 500/230 kV Substation

Customer:
Region: Northeast
County: WALTON
Project Manager: JAMES FARMER
Description: New Substation
Scope: New 500/230 kV substation. Install 500/230 kV 2016 MVA transformer with an on-site spare phase.

Total Budget	Retirement	Reimbursement	DSF	ITS INV
$48,900,000	$0	$0	$0	$48,900,000

ITS Member Feeder Information

# of Feeders: 0 **Regulator Size:** 0
Overhd/Undergrd: NA **Oper. Voltage:** NA

East Walton Projects
Scoping Meeting Minutes

Date: 1/5/2023
Location: Webex/Conference Room 320

Attendees:

Name	Department	Name	Department
Jerry White	Construction Inspection	Jeremiah Woody	System Reliability
Blake Brinkley	Construction Inspection	Dawn Jones	Bulk Planning
Craig Heighton	External Affairs	Addis Kifle	Protection Control
Ryan Jackson	Transmission Projects	Josh Knight	Member Planning
Ian Miller	Transmission Projects	Laura Suber	Merrick
Andrew Morgan	Bulk Planning	BJ Parkerson	Construction Inspection
Levi Bennett	Bulk Planning	Obi Okwandu	Project Controls
James Billingsley	Construction Inspection	Ashok Padman	T/L Design
Fred Bowers	Cyber Security	Daniel Phillips	Electronic Maintenance
Nate Brex	Protection Control	Ishaq Saima	Bulk Planning
Jeffrey Brogdon	Protection Control	Austin Sheppard	Relay Maintenance
Robert Casey	Member Planning	Larra Stansbury	T/L Design
Kevin Diedrick	Transmission Projects	Thomas Leslie	Bulk Planning
Ron Frazier	System Reliability	Ty King	T/L Maintenance
Tim Harben	Project Controls	Jerome Vinson	Bulk Planning
Joey Heath	Member Planning	Jordan Webb	Member Relations
Heather Ahrens	Environmental	Rob Wiley	Bulk Planning
Susan Ingall	Project Controls	Ken Wofford	Bulk Planning
Chris Smith	Environmental	Andy Yap	Project Controls
Lance Djibo	Bulk Planning	Melvin Dillard	Relay Maintenance
Joseph Cathey	Member Planning	Lindberg Sweatmon	Transmission Projects
James Farmer	Transmission Projects	Terry Buttrill	External Affairs
Anne Lerner	External Affairs	Derek Hughes	Substation Design
Danny Cortese	Substation Design	Daniel Lascau	Relay & Control
Chip Buttrill	Substation Design	Camron Carden	Transmission Projects
Quan Fan	T/L Design	Robert Fede	Member Planning
Tony Chaapel	Land Services	Dwaine Wright	Land Services
Dawn Jones	Bulk Planning		

East Walton 500/230 kV Substation

Project #: P79465

Cut-in Date: 6/1/27

Scope: New 500/230 kV substation with a two element 500 kV ring bus, four element 230 kV ring bus, and one new 500/230 kV, 2016 MVA transformer. Allow room for three spare bays on the 500 kV ring bus and 1 spare bay on the 230 kV ring bus to provide future substation expansion.

Substation Discussion:

- **General**
  - Land has been acquired under East Walton ALP project P84958

- **500 kV Equipment**
  - Construct 2 element 500 kV ring bus
    - Allow room for three spare positions for future expansion
    - 500 kV ring equipment will be 4000A, 63 kV rated
    -

- **230 kV Equipment**
  - Construct 4 element 230 kV ring bus
    - Allow room for one spare position
    - Design to accommodate future expansion
    - Transformer LS switch will be rated 5000A
    - 230 kV ring bus equipment will be 3000A, 63kA rated

- **500/230 kV Transformer**
  - Install new 500/230 kV, 2016 MVA transformer
    - One onsite spare phase
    - Transformer will use the same spec as the unit at Dresden Substation

- **Control House**
  - Panel count TBD
    - System Protection to follow up with panel count to determine the control house dimensions
    -

- **Miscellaneous**
  - Fence will cover perimeter of the 500 and 230 kV yards
  - CIP classification
    - Medium Impact
    - Install equipment will be as follows:
      - Thermal cameras, pan tilt zoom cameras, speakers, LED lighting, ballistic protection and card readers for control house
      - Fence to be expanded steel mesh
    - Clear a minimum of 60 ft outside of the fence

East Walton - Rockville 500 kV T/L

Project #: P79463

Cut-in Date: 6/1/27

Scope: Construct an approximately 47-mile 500 kV line from the East Walton 500/230 kV substation to Rockville 500 kV Substation.

Discussion:

- ROW previously acquired under East Walton – Rockville ALP project P78670
- Line length will be 47 miles
- The conductor type will be 3-1113 ACSR 100^{o}C
- 96 count OPGW will be assumed
    - Current 500 kV standard allows for (2) 48 count OPGW

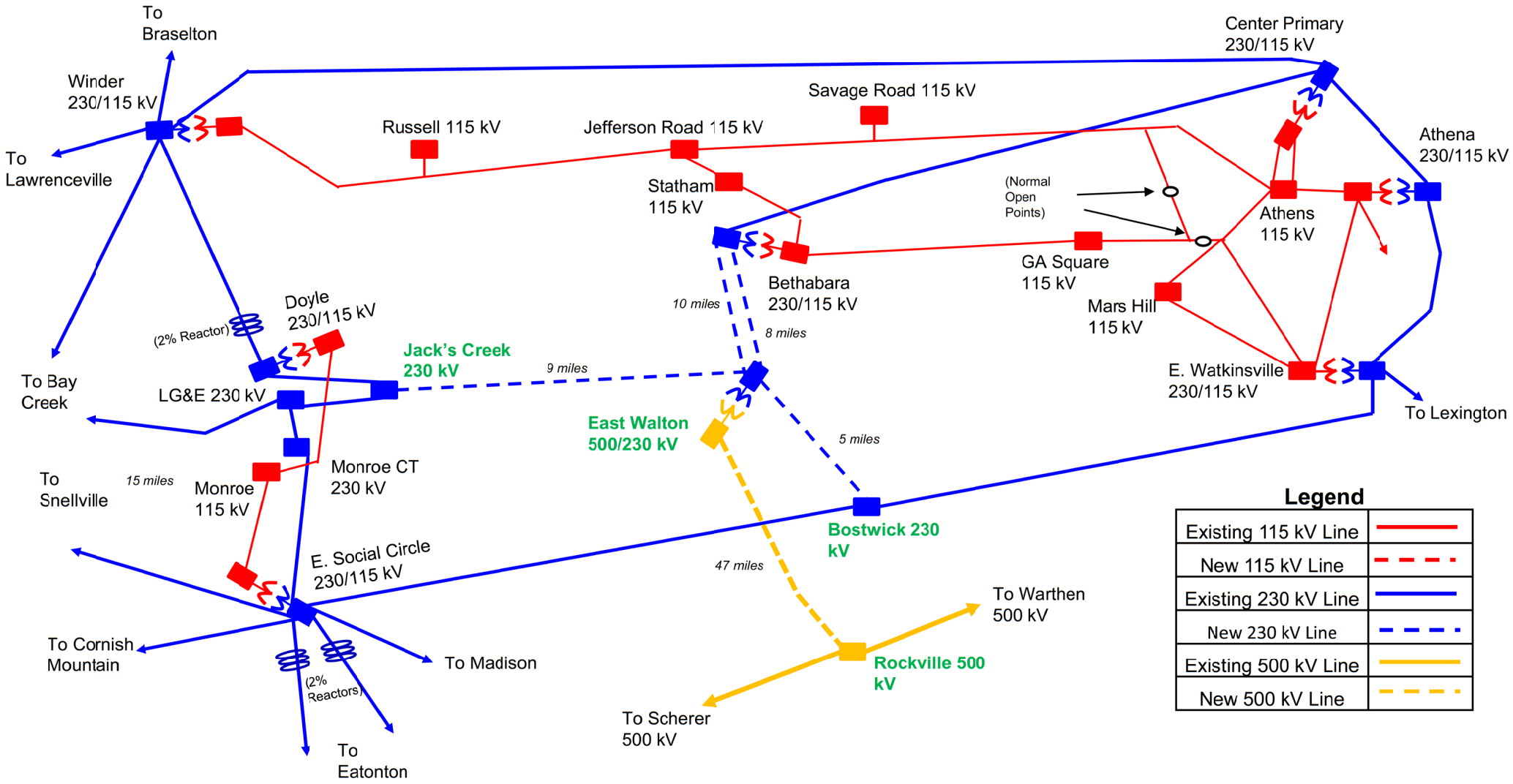
TINs/PCDs:

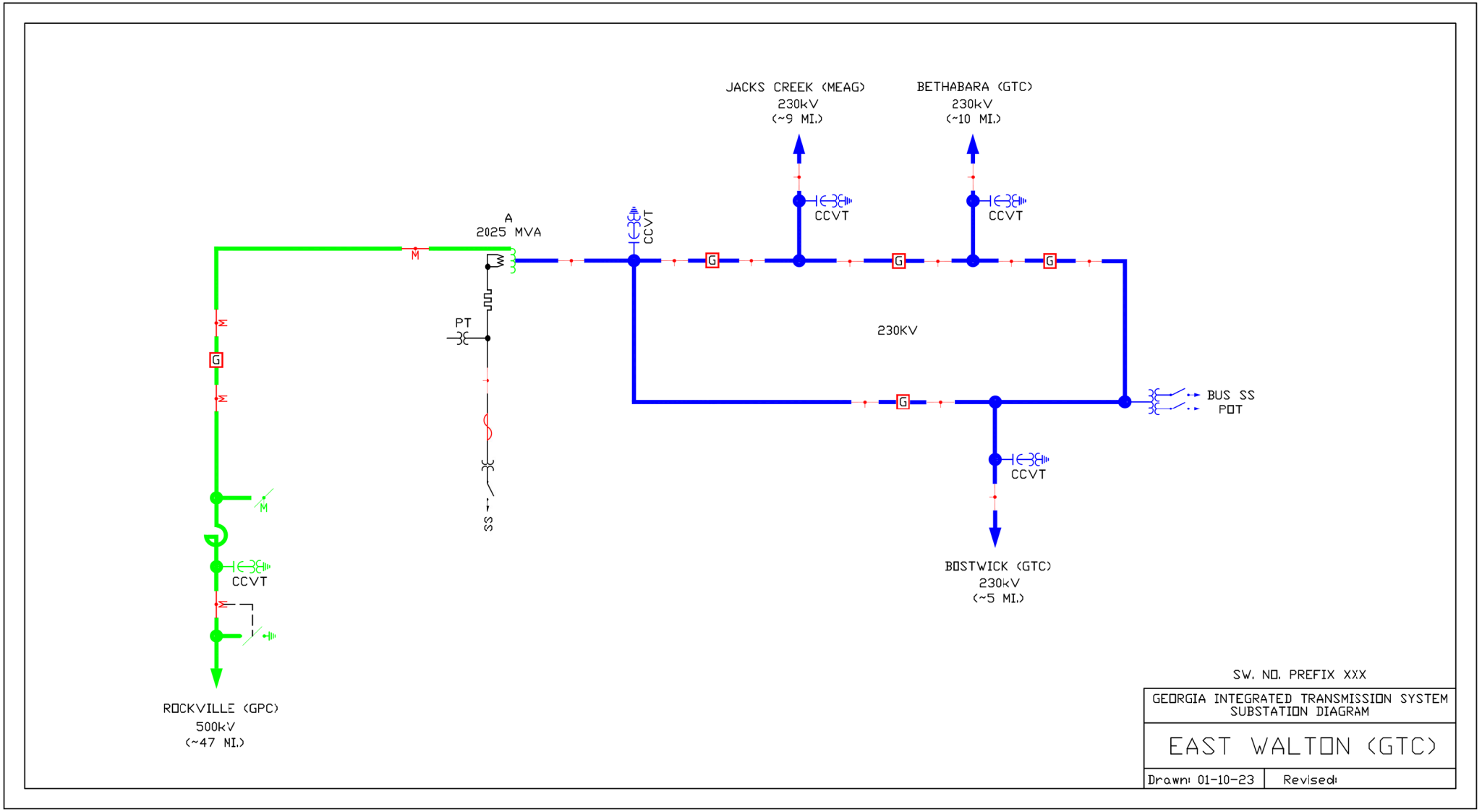
- GTC will send GPC a TIN for the termination of the line at Rockville

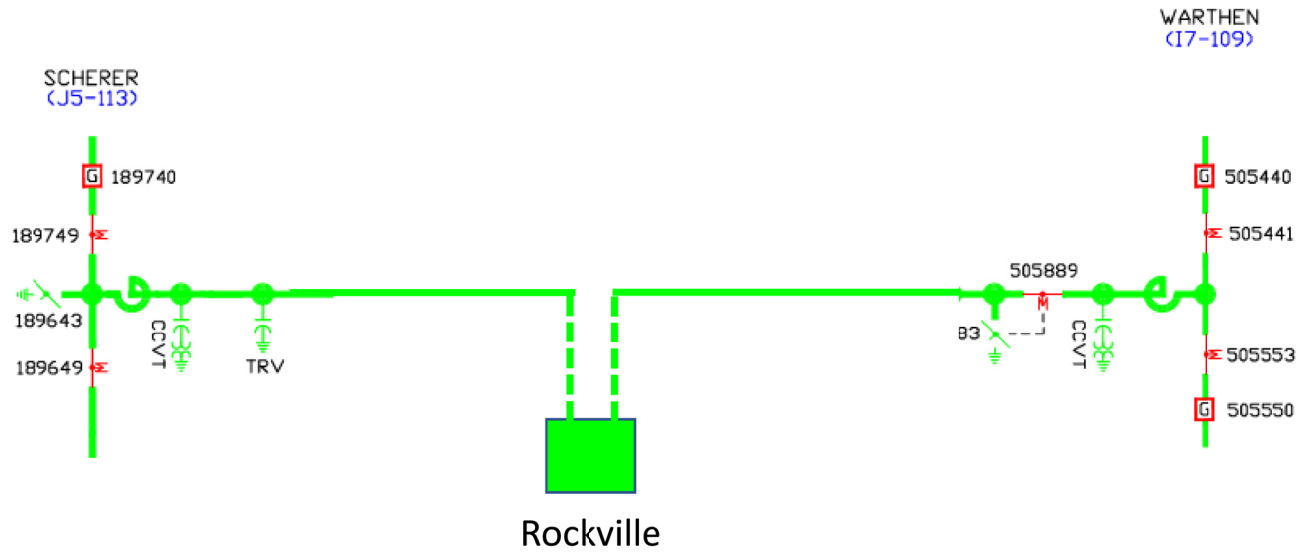
Estimating:

- Bulk planning will produce the estimate.
    - Projects to provide a per mile figure and assumptions for estimating purposes

East Walton 500/230 kV Project







GEORGIA INTEGRATED TRANSMISSION SYSTEM SUBSTATION DIAGRAM	
SCHERER – WARTHEN 500KV	
Drawn: 01-14-00	Revised: 03-30-22 CJM

SHEET NO. L-J5-108

NET500-1

GEORGIA INTEGRATED TRANSMISSION SYSTEM
SUBSTATION DIAGRAM

EAST WALTON – ROCKVILLE 500KV

Drawn: 01-14-00 | Revised: 11-12-08 BAL

SHEET NO. L-H4-102

Planning Grade Estimate 2/1/2023

Project Name: East Walton 500/230 kV Substation
Project Number: P79465
Scope: Construct 500/230 kV S/S. Install 500/230 kV 2016 MVA transformer with an on-site spare phase. (See below for additional scope details. See P78780 for the associated ALP.)

Project Cut-In Date 6/1/2027

Direct Charges	
EC 50 - Construction Contract Labor	$17,100,981.38
EC 64 - Owner Furnished Material	$11,816,748.46
Land	$0.00
Labor (40 & 54)	$2,547,818.64
EC 56 - Professional Services	$3,281,731.50
Legal	$296,397.23
Other	$164,322.79
Project Contingency & Escalation	$3,911,999.96
Total Direct Cost	**$39,120,000**
Indirect (overheads)	**$9,780,000**
Total Project Cost	**$48,900,000**
Retired Asset Value	$0
ITS Investment	$48,900,000
DSF Investment	$0
TSF Investment	$0
Net Change to Facility Investment	**$48,900,000**

Assumptions:

1. Estimate based on an analogous estimating approach. Raccoon Creek (P75960) used as basis for determining EC values.
2. Contingency costs set at 10% of direct costs. Cost is intended to cover high level nature of planning grade estimates.
3. Indirect cost assumptions include 25% of direct costs.

East Walton 500 kV Substation P79465

Cut-In: 6/1/2027
Estimate Assumptions

Scope:
Construct 500/230 kV S/S. Install 500/230 kV 2016 MVA transformer with an on-site spare phase.

The following is a list of assumptions on which the estimate for the subject project is based:

1. Estimate based on normal lead time schedule.
2. Contingency is included in the estimate.
3. Estimate overheads are calculated using the 2023 methodology (25%)
4. Estimate assumes normal soil conditions, with some rock removal.
5. Estimate assumes that land rights were acquired under a previous ALP project.
6. Estimate is based on a 2 element 500 kV ring bus with 3 spare positions for future expansion, bus work will be built to 5000A specification.
7. Estimate is based on a 4 element 230 kV ring bus with 1 spare position for future expansion, bus work will be built to 3000A specification.
8. Estimate includes a 500/230 kV, 2016 MVA transformer. The transformer will be (3) single phase units with (1) spare phase on site. The transformer specification will match Dresden Substation. The total transformer cost is estimated to be $15,250,000.
9. Estimate includes Medium Impact CIP classification, with similar equipment to Dresden.
10. Estimate includes costs for clearing and inclusion of mats and stream crossings.
11. There will be moderate to heavy clearing on the future substation site. The estimate includes cost to cover moderate to heavy excavation and grading on the future substation site.
12. Estimate includes standard Cartography and on site surveying/staking support.

Planning Grade Estimate 2/1/2023

Project Name: East Walton - Rockville 500 kV Line
Project Number: P79463
Scope: Construct new 46.6 miles of 500 kV line from GTC's new East Walton 500/230 kV S/S to GPC's new Rockville 500 kV S/S (near Wallace Dam) w/ 3-1113 ACSR conductor for 100 degree centigrade operation. (See Project # P78670 for the ALP.)

Project Cut-In Date 6/1/2027

Direct Charges	
EC 50 - Construction Contract Labor	$83,107,573.62
EC 64 - Owner Furnished Material	$59,183,895.46
Land	$0.00
Labor (40 & 54)	$8,846,429.94
EC 56 - Professional Services	$15,182,801.20
Legal	$1,370,312.44
Other	$1,508,987.33
Project Contingency & Escalation	$18,799,999.81
Total Direct Cost	**$188,000,000**
Indirect (overheads)	**$47,000,000**
Total Project Cost	**$235,000,000**
Retired Asset Value	$0
ITS Investment	$235,000,000
DSF Investment	$0
TSF Investment	$0
Net Change to Facility Investment	**$235,000,000**

Assumptions:

1. Estimate based on an estimate of $5M per mile provided by Transmission Projects
2. Contingency costs set at 10% of direct costs. Cost is intended to cover high level nature of planning grade estimates.
3. Indirect cost assumptions include 25% of direct costs.

East Walton – Rockville P79463

Cut-In: 6/1/2027

Estimate Assumptions

Scope:

Construct approximately 47 miles of 500 kV line from GTC's new East Walton 500/230 kV S/S to the new Rockville 500 kV S/S w/ 3-1113 ACSR conductor for 100ºC operation.

The following is a list of assumptions on which the estimate for the subject project is based:

1. Estimate assumes 47 mile total length, with the majority of the right-of-way width at 150'.
2. Estimate assumes the per mile cost is roughly $5.0M per mile. Contingency is built in to that per mile number.
3. Line will be built to 500 kV specifications using a bundle of (3) 1113 ACSR with 96 count (2 – 48 count) OPGW.
4. Estimate assumes normal soil conditions, with some rock removal.
5. Estimate includes costs for clearing and inclusion of mats and stream crossings.
6. There will be moderate to heavy ROW clearing along the ROW.
7. Cartography assumes standard maps will be required and full Title 22 support.
8. Estimate assumes that all TL right-of-way easements have been acquired under a previous ALP project and does not include cost for TL right-of-way easements.
9. The estimate assumes that there will be additional "off right-of-way" access easements required and those costs are included in this project.
10. Estimate overheads are calculated using the 2023 methodology (25%).
11. Estimate includes costs for permitting and NPDES monitoring.