Welcome

SERTP 2012 – 4th Quarter Meeting

"Annual Transmission Planning Summit & Assumptions Input Meeting"

Southeastern Regional TRANSMISSION PLANNING

2012 SERTP

- The SERTP process is a transmission planning process.

- Please contact the respective transmission provider for questions related to real-time operations or OATT transmission service.

Purposes & Goals of the Meeting

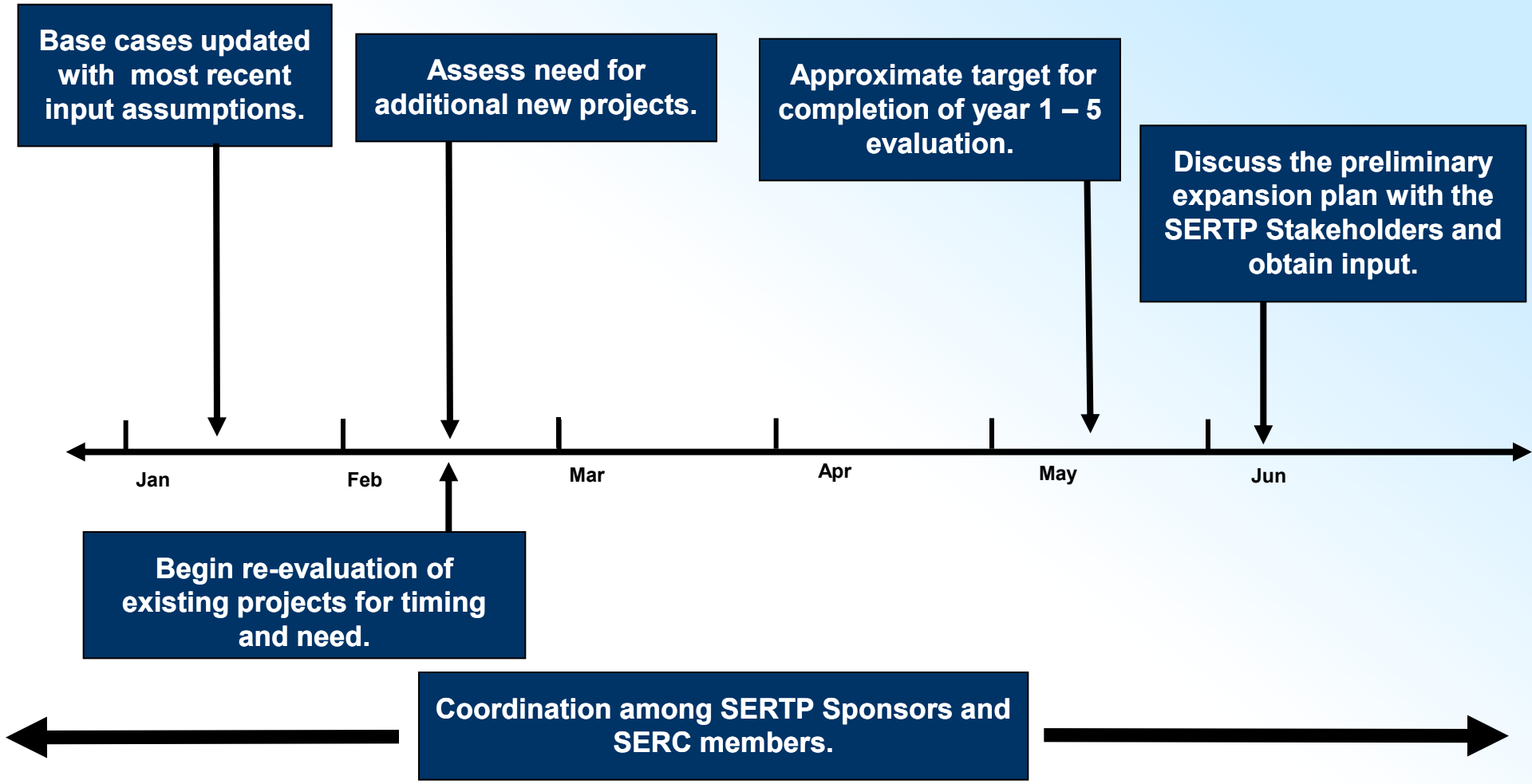
- Ten Year Expansion Plan
  - East
  - West
- 2012 Economic Planning Study Results
- Preliminary 2013 Modeling Assumptions
  - Load Forecast
  - Generation Assumptions
- Miscellaneous Updates
- Upcoming 2013 SERTP Process

Ten Year Expansion Plan 2012

Southeastern Regional TRANSMISSION PLANNING

10 Year Expansion Plan Timeline

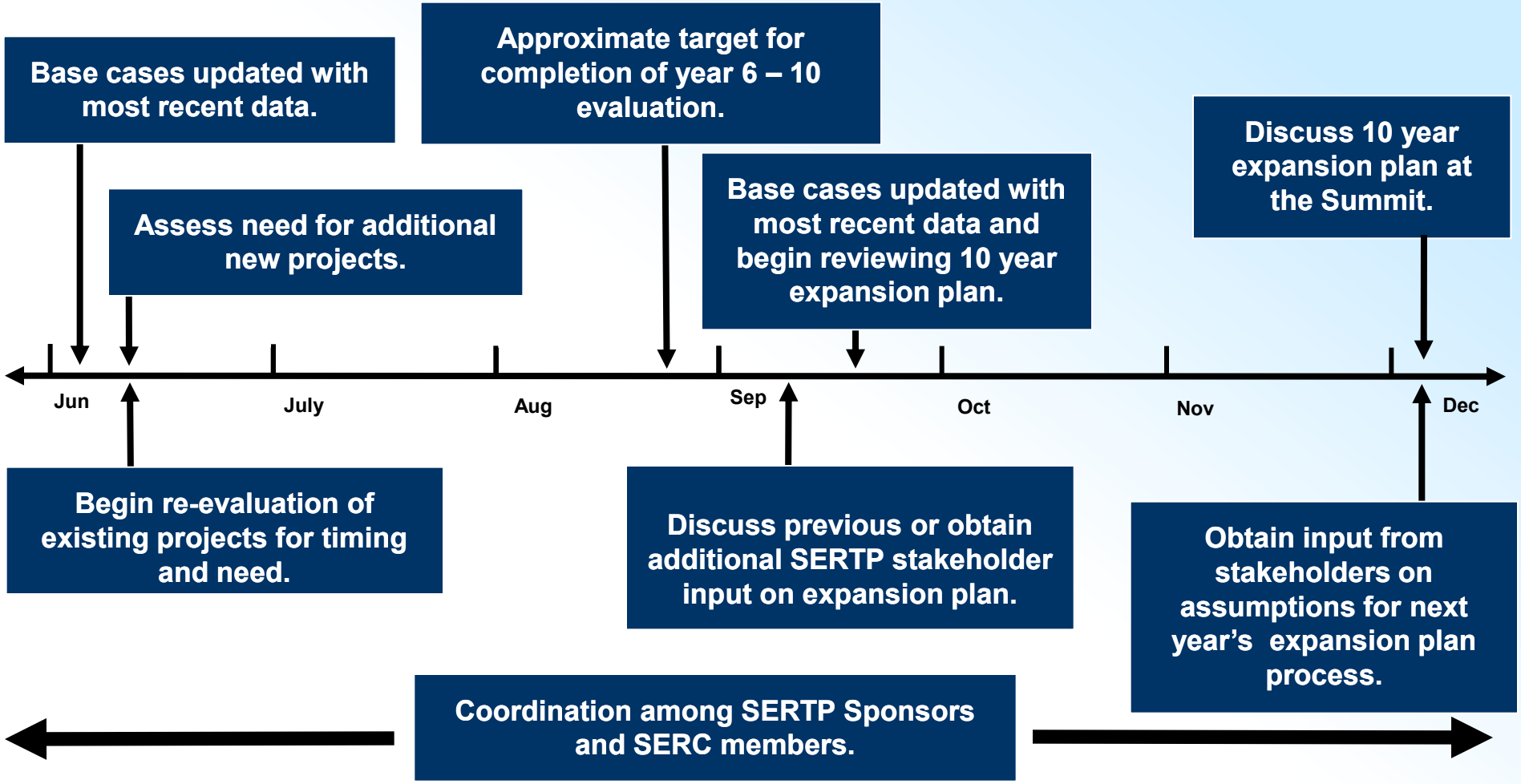
Approximate Planning Time Line (Years 1 – 5)



Southeastern Regional TRANSMISSION PLANNING

10 Year Expansion Plan Timeline

Approximate Planning Time Line (Years 6 – 10)



Southeastern Regional TRANSMISSION PLANNING

2012 SERTP

- The projects described in this presentation represent the ten (10) year expansion plan. The 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.
- The in-service date of each project is June 1st of the stated project year, unless otherwise specified.

2012 SERTP

2012 Ten Year Expansion Plan

- East
- West

Southeastern Regional TRANSMISSION PLANNING

2012 SERTP

Economic Planning Studies

PowerSouth Energy Cooperative

Dalton Utilities

GeorgiaTransmission

MEAG POWER

South Mississippi Electric Power Association

Southern Company — Energy to Serve Your World℠

2012 SERTP

Five Economic Planning Studies

- TVA Border to Southern
  - 500 MW (2017)
- PJM West to Southern Balancing Authority
  - 3500 MW (2017)
- Southern Balancing Authority to TVA Border
  - 1000 MW (2013)
- SCPSA Border to EES Border
  - 500 MW (2013)
- SCPSA Border to GTC
  - 200 MW (2013)

Power Flow Cases Utilized

- Study years: 2013, 2017
- Load Flow Cases:
  - 2012 Series Version 2A
    - Summer Peak
    - Shoulder

2012 SERTP

Economic Planning Studies

- Final Report Components:
  - Thermal Analysis
    - Contingency Analysis to identify constrained elements/contingency pairs
  - Interface Transfer Capability Impacts
  - Stability Impacts
  - Potential Solutions
    - Transmission Enhancements and Cost Estimates

2012 SERTP

- The following information depicts recommended enhancements for the proposed transfer levels above and beyond existing, firm commitments. Therefore, this information does not represent a commitment to proceed with the recommended enhancements nor implies that the recommended enhancements could be implemented by the study dates (2013, 2017).

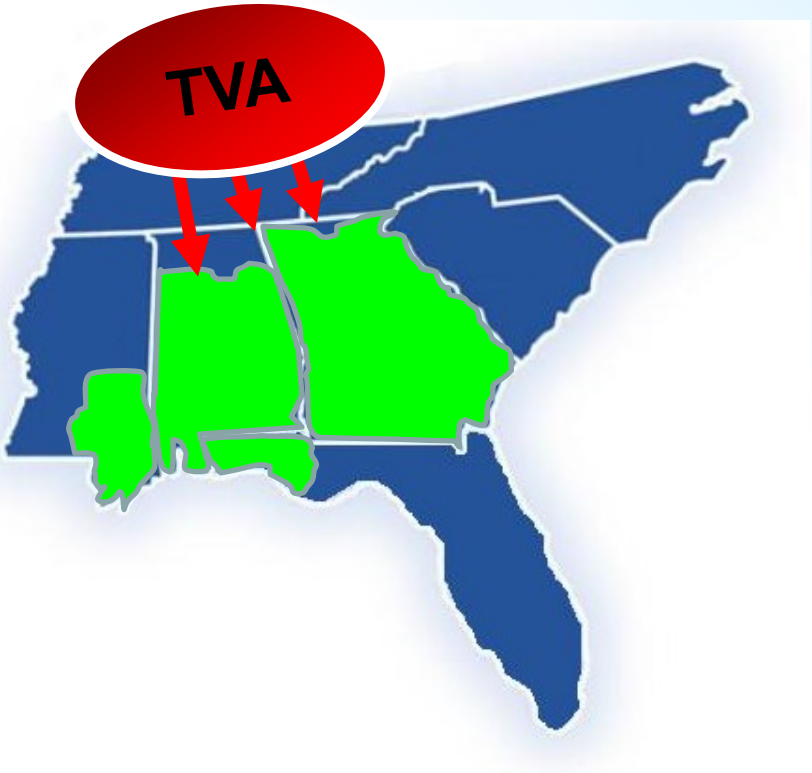
- These potential solutions only address constraints identified within the SERTP Sponsors' areas that are associated with the proposed transfers. Other Balancing Areas were not monitored which could result in additional limitations and required system enhancements.

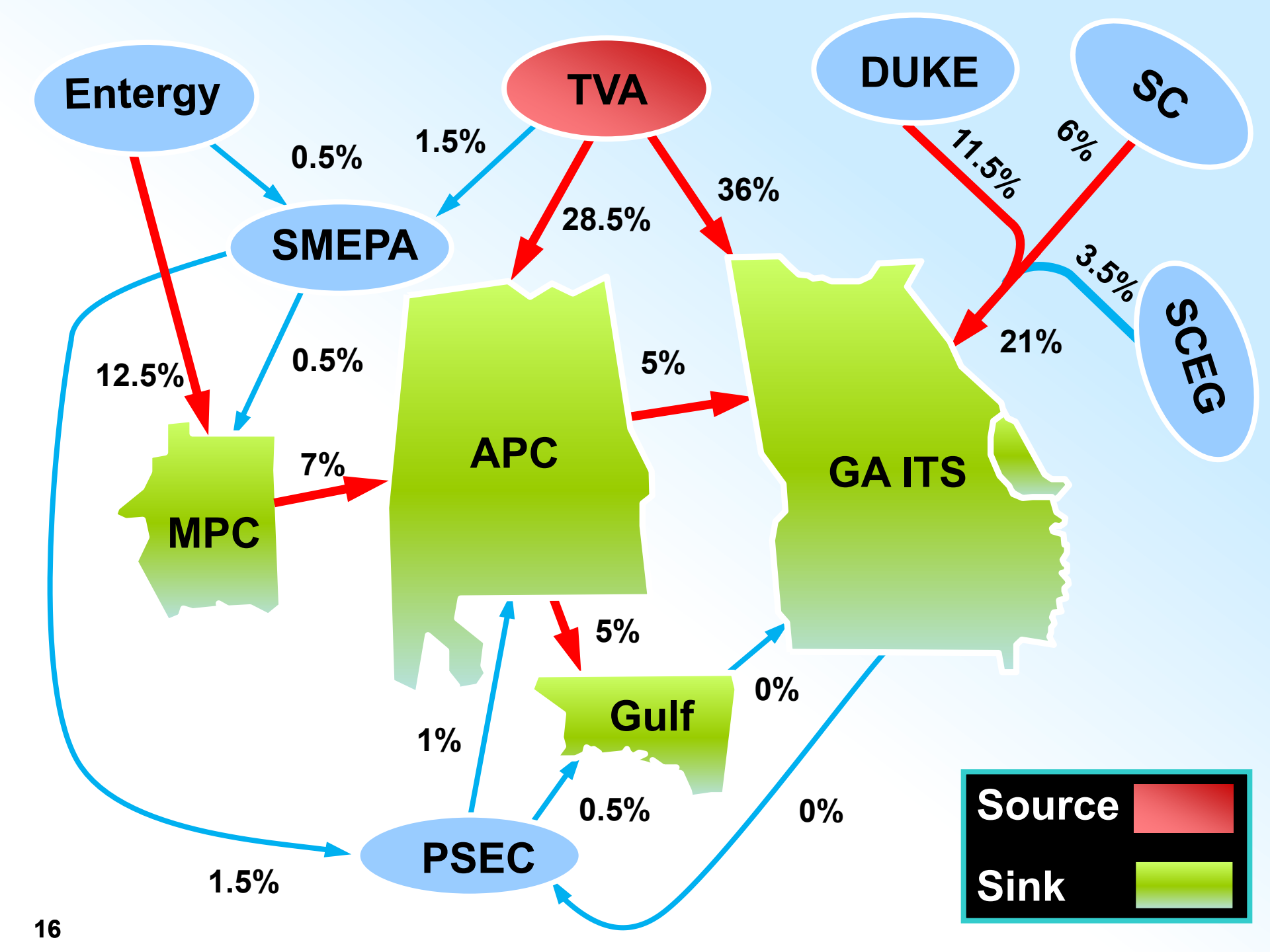
TVA Border to Southern

500 MW

TVA Border to Southern 500 MW

- Transfer Type: Load to Generation (2017)
- Source: Uniform load reduction in TVA
- Sink: Southern Generation




Entergy
TVA
DUKE
SC
SMEPA
SCEG
APC
GA ITS
MPC
Gulf
PSEC
0.5%
1.5%
36%
28.5%
11.5%
6%
3.5%
21%
12.5%
0.5%
5%
7%
5%
0%
1%
0.5%
0%
1.5%
Source
Sink

TVA Border to Southern
500 MW

Transmission System Impacts

- Thermal Constraints Identified:
  - One (1) 230 / 115 kV Transformer

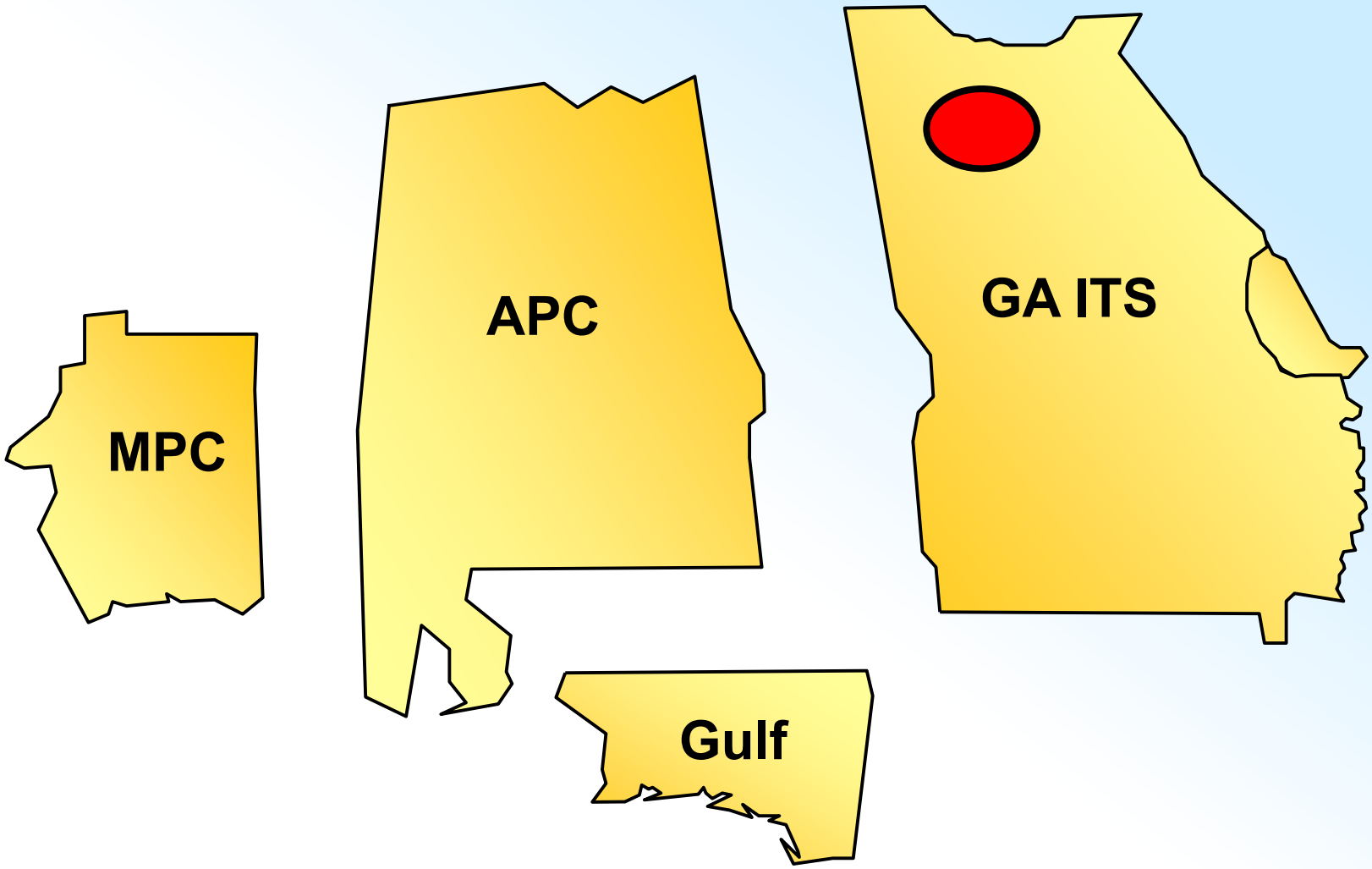
Total Cost (2012$) = $900,000

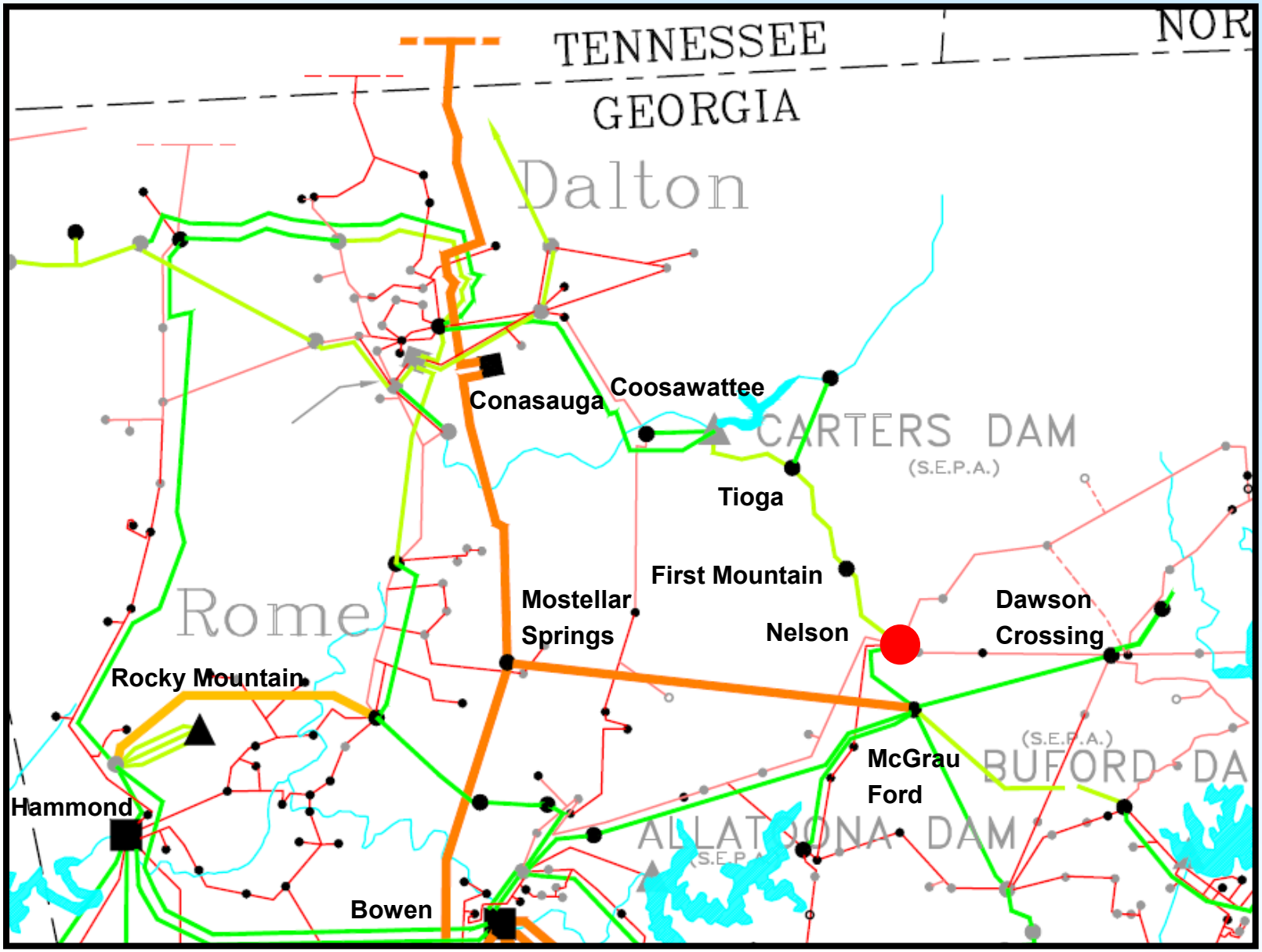
TVA Border to Southern 500 MW

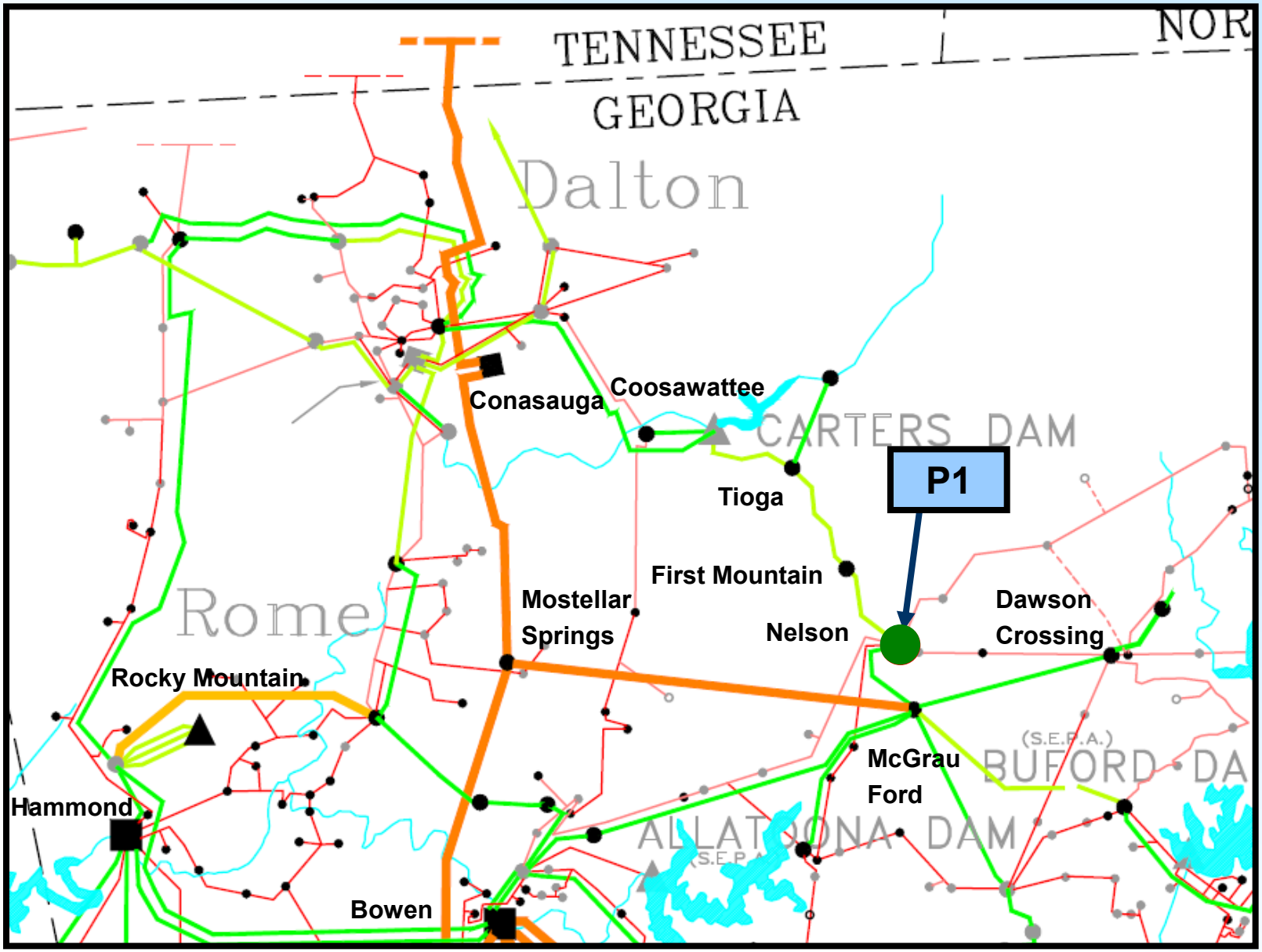
Significant Constraints – PASS 0

Limiting Elements	Rating (MVA)	Thermal Loading (%)	
		Without Request	With Request
Nelson 230 / 115 kV TL	176	99.5	100.5

Significant Constraints




TENNESSEE
GEORGIA
Dalton
Conasauga
Coosawattee
CARTERS DAM
(S.E.P.A.)
Tioga
First Mountain
Mostellar
Springs
Nelson
Dawson
Crossing
Rome
Rocky Mountain
McGrau
Ford
(S.E.P.A.)
Hammond
Bowen


TENNESSEE
GEORGIA
Dalton
Rome
Conasauga
Coosawattee
CARTERS DAM
P1
Tioga
First Mountain
Mostellar
Springs
Nelson
Dawson
Crossing
Rocky Mountain
McGrau
Ford
Hammond
Bowen

TVA Border to Southern 500 MW

Projects Identified

Item	Proposed Enhancements	Cost ($)
P1	Nelson Substation	$900,000(1)

(1) Advancement cost associated with a project in the latest ten year expansion plan

SBA Total Cost (2012$) = $900,000

2012 SERTP

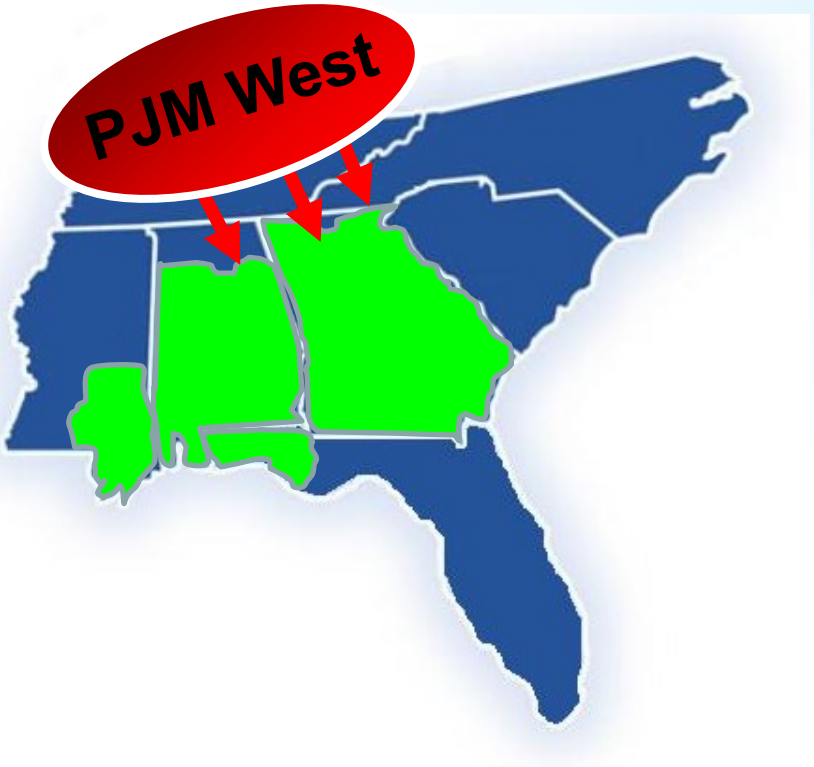
Questions on the TVA Border to Southern Transfer?

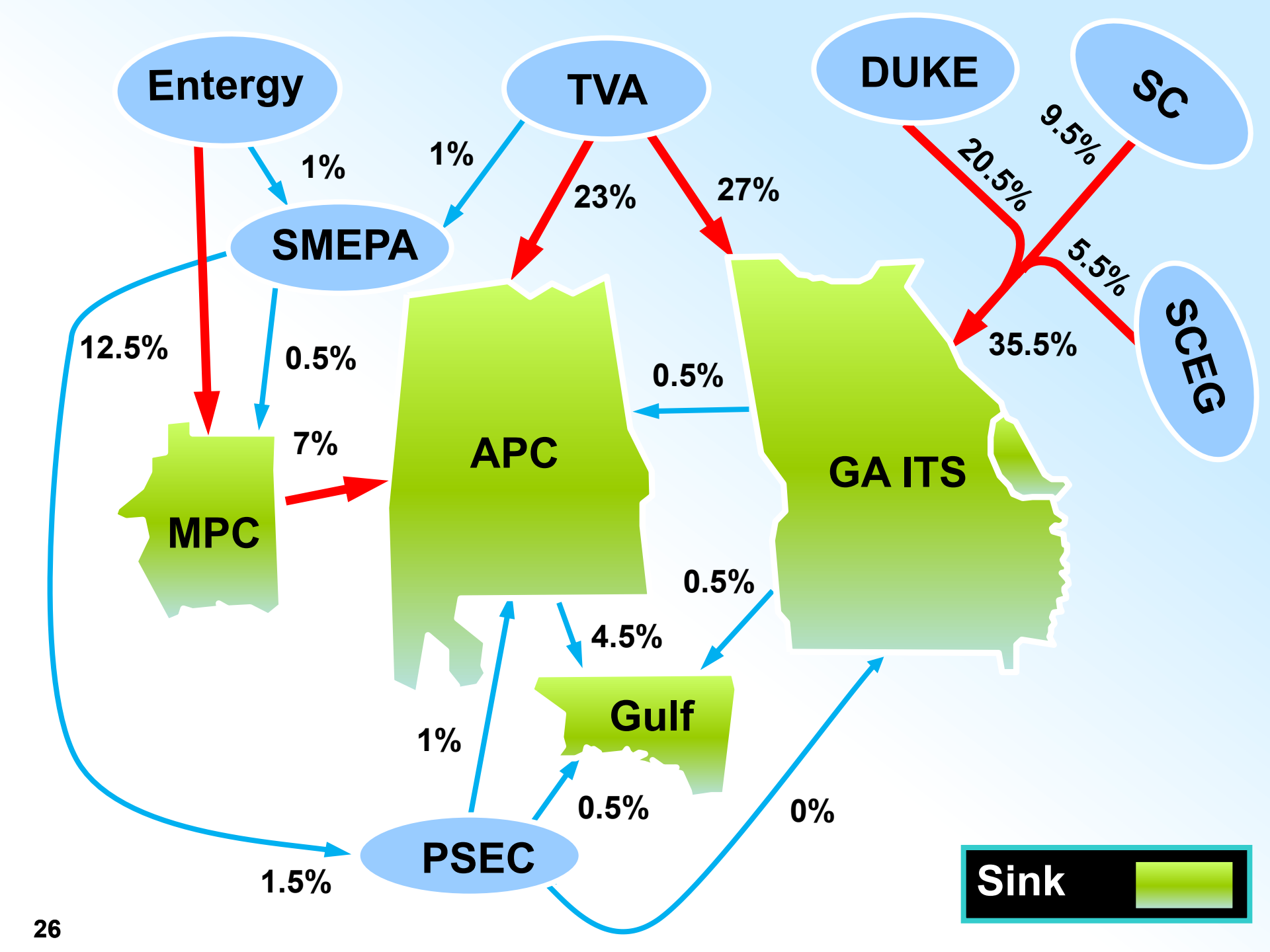
PJM West
to
SBA

3500 MW

PJM West to SBA
3500 MW

- Transfer Type: Generation to Generation (2017)
- Source: New generator interconnecting to the Sullivan 765 kV substation in AEP
- Sink: Generation within the SBA




Entergy
TVA
DUKE
SC
SMEPA
SCEG
APC
GA ITS
MPC
Gulf
PSEC
1%
1%
23%
27%
20.5%
9.5%
5.5%
35.5%
12.5%
0.5%
0.5%
7%
0.5%
4.5%
1%
0.5%
0%
1.5%
Sink

PJM West to SBA 3500 MW

Transmission System Impacts

- Thermal Constraints Identified:
  - Three (3) 500 kV T.L.s
  - Three (3) 500 / 230 kV Transformers
  - Twenty three (23) 230 kV T.L.s
  - Two (2) 230 / 115 kV transformers
  - Two (2) 161 kV T.L.s
  - Two (2) 161 / 115 kV transformers
  - Twenty nine (29) 115 kV T.L.s

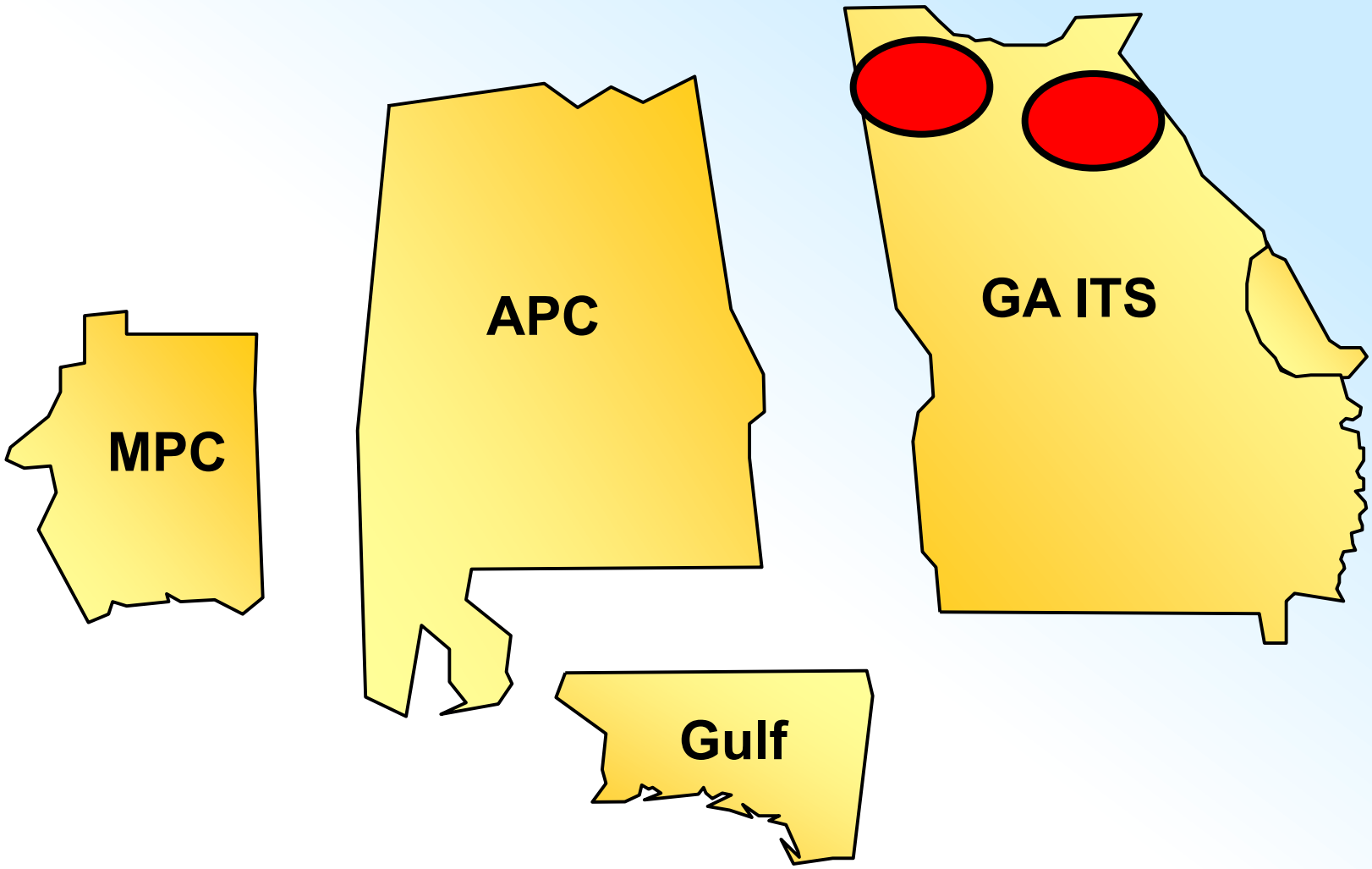
Total Cost (2012$) = $332,950,000

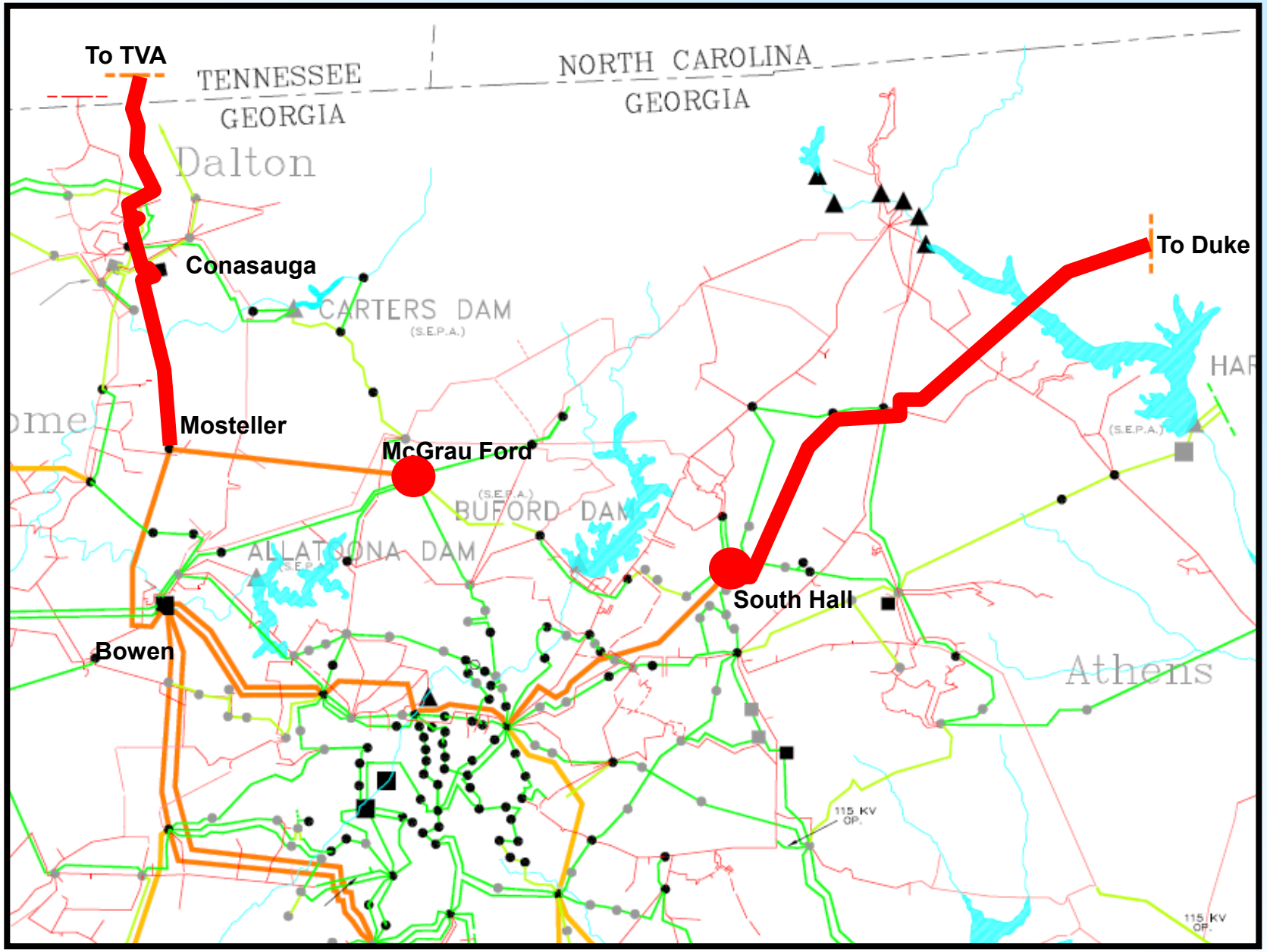
PJM West to SBA
3500 MW

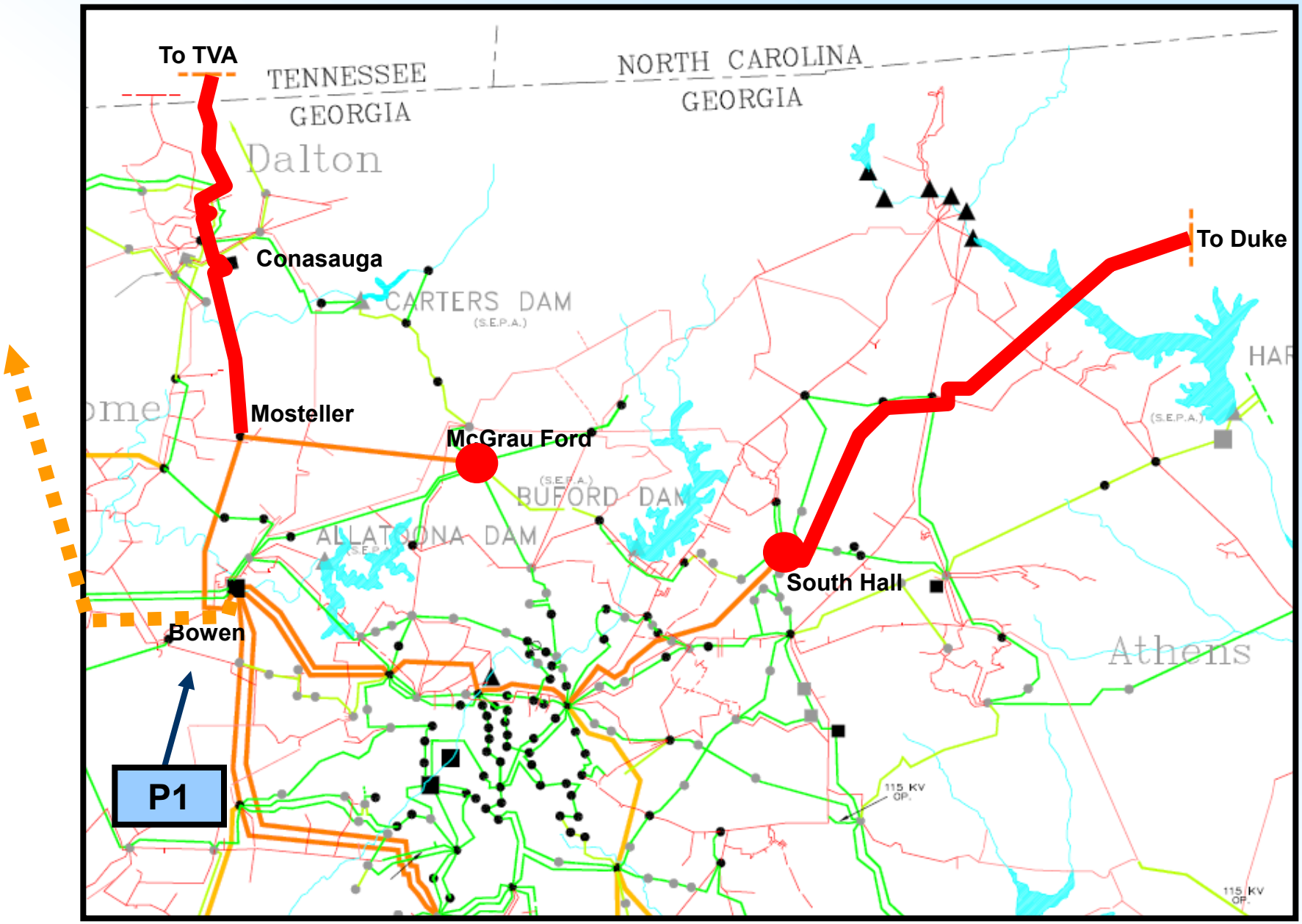
Significant Constraints – PASS 0

Limiting Elements	Rating (MVA)	Thermal Loading (%)	
		Without Request	With Request
Conasauga – Bradley 500 kV TL	2783	79.8	118.0
Mosteller – Conasauga 500 kV TL	3429	76.3	107.3
South Hall – Oconee 500 kV TL	3063	71.6	103.7
McGrau Ford 500 / 230 kV	2016	85.1	110.3
South Hall 500 / 230 kV	2016	75.9	103.6

Significant Constraints




To TVA
TENNESSEE
GEORGIA
NORTH CAROLINA
GEORGIA
Dalton
Conasauga
CARTERS DAM
(S.E.P.A.)
To Duke
Mosteller
McGrau Ford
(S.E.P.A.)
BUFORD DAM
ALLATOONA DAM
South Hall
Bowen
Athens
115 KV
OP.
115 KV
OP.

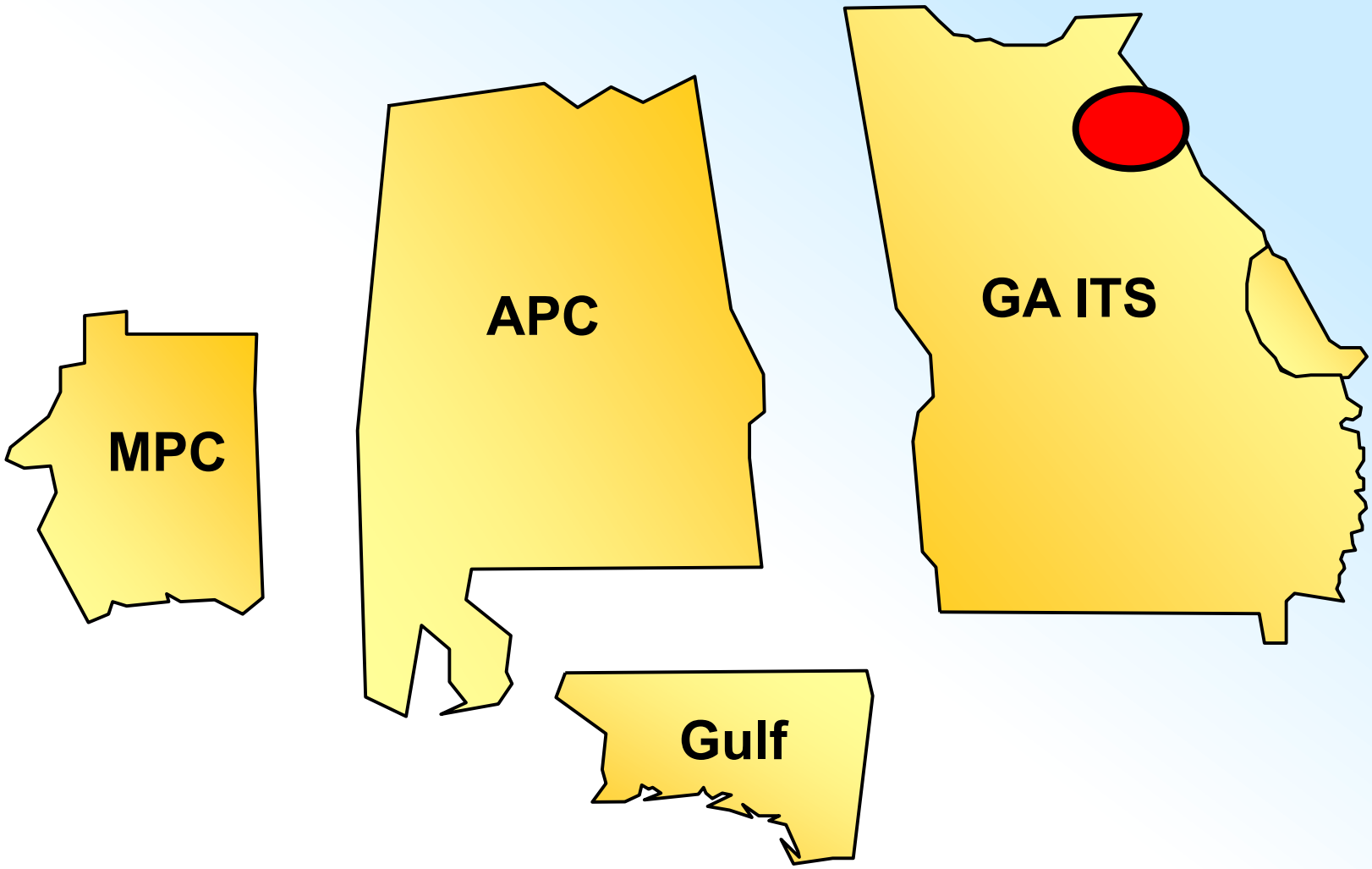

To TVA
TENNESSEE
GEORGIA
NORTH CAROLINA
GEORGIA
Dalton
Conasauga
CARTERS DAM
(S.E.P.A.)
To Duke
Mosteller
McGrau Ford
BUFORD DAM
(S.E.P.A.)
ALLATOONA DAM
South Hall
Bowen
Athens
P1
115 KV
OP.
115 KV
OP.

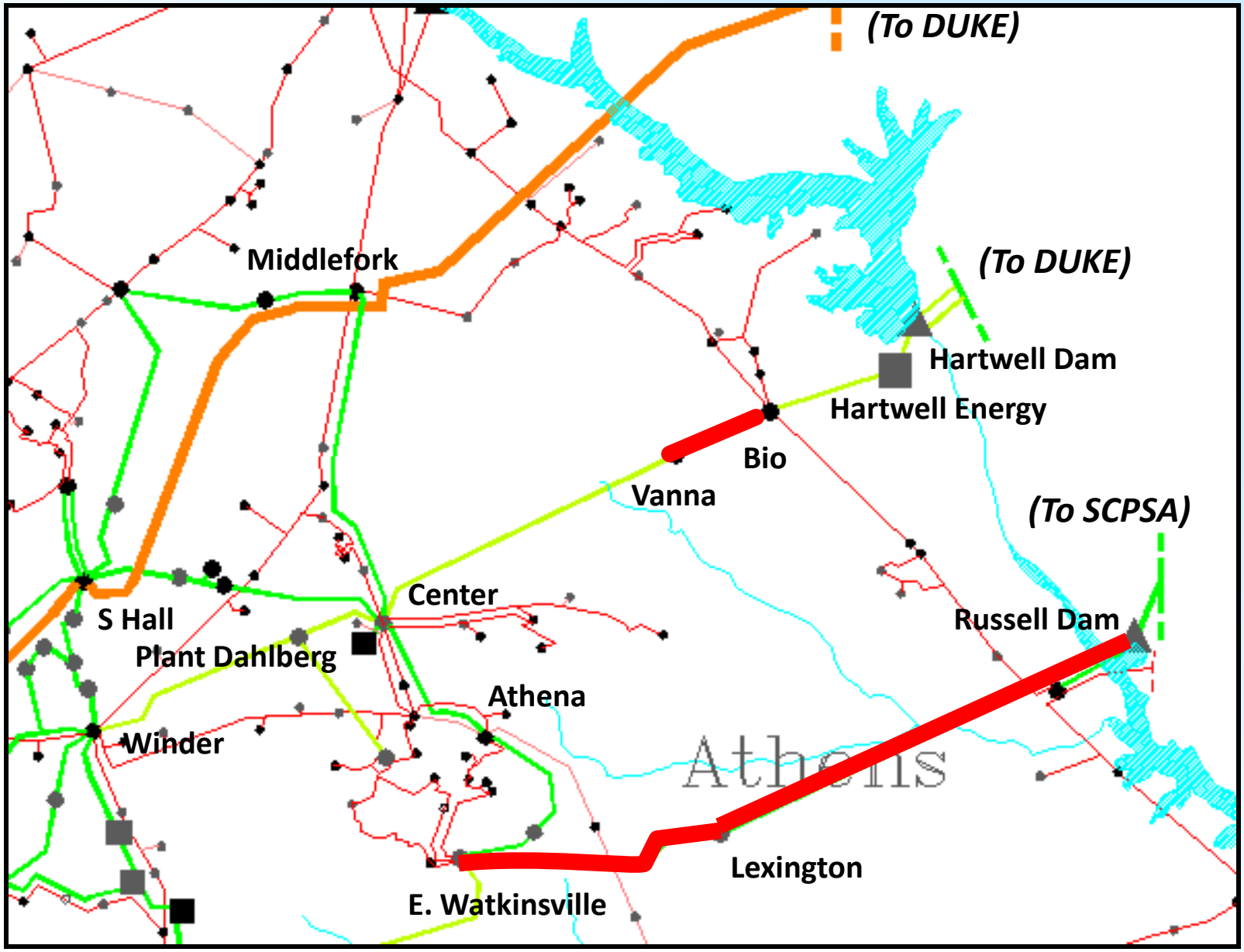
PJM West to SBA
3500 MW

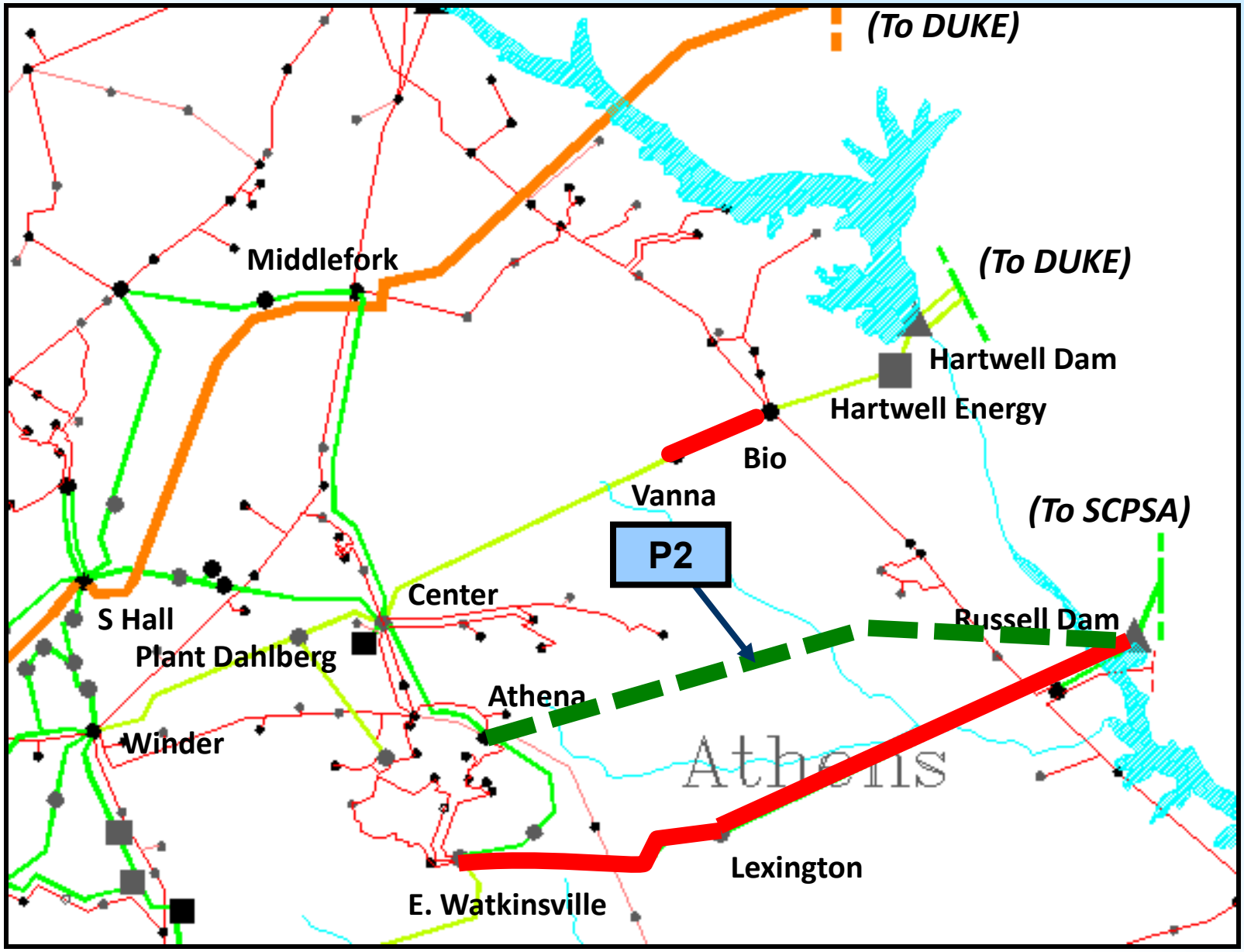
Significant Constraints – PASS 1

Limiting Elements	Rating (MVA)	Thermal Loading (%)	
		Without Request	With Request
Lexington – East Watkinsville 230 kV TL	602	88.4	108.1
Bio – Vanna 230 kV TL	433	91.2	109.4
Russell – Lexington 230 kV TL	596	92.6	112.6

Significant Constraints




(To DUKE)
Middlefork
(To DUKE)
Hartwell Dam
Hartwell Energy
Bio
Vanna
(To SCPSA)
Center
S Hall
Plant Dahlberg
Russell Dam
Athena
Winder
Athens
Lexington
E. Watkinsville

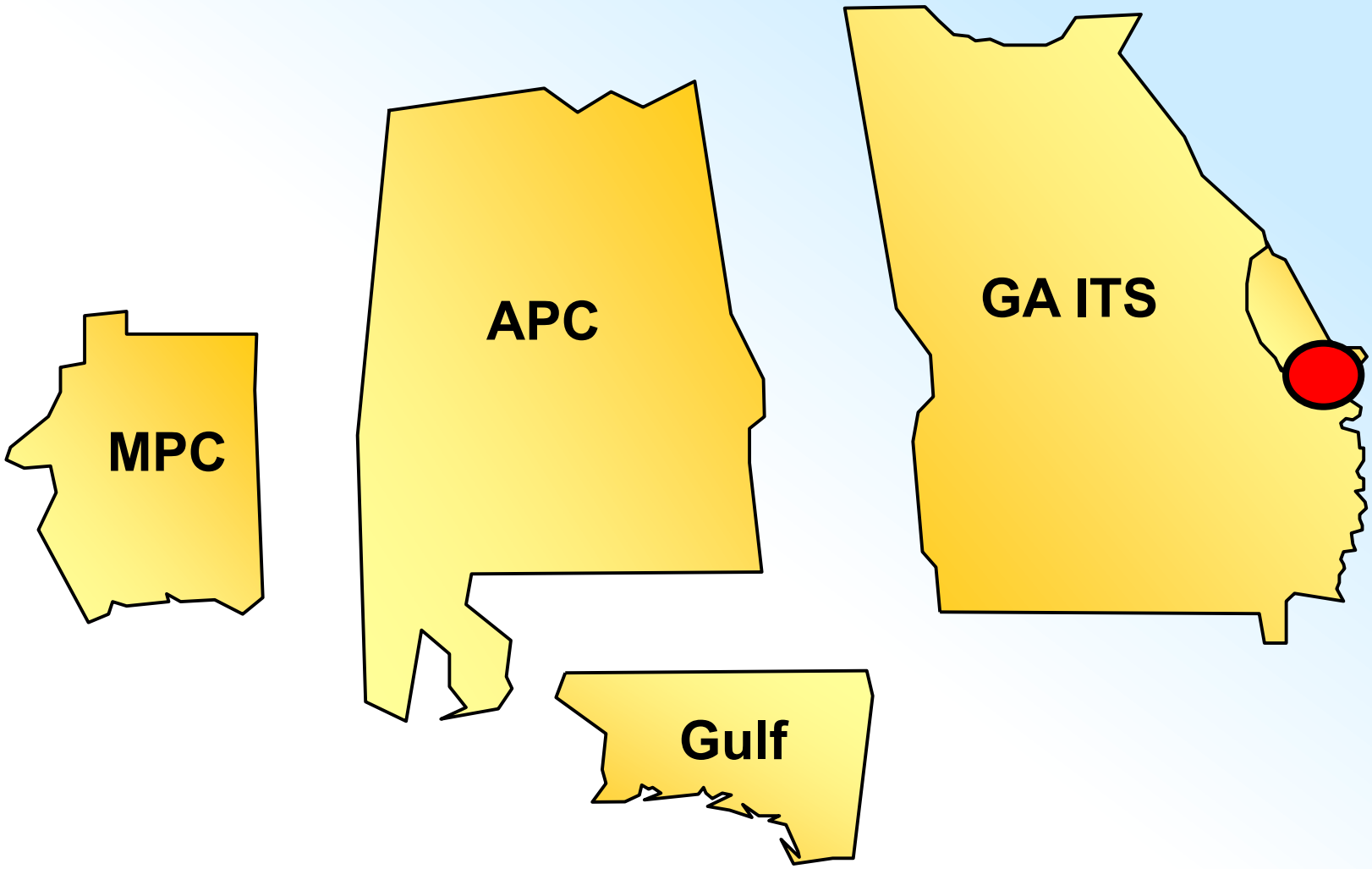

(To DUKE)
Middlefork
(To DUKE)
Hartwell Dam
Hartwell Energy
Bio
Vanna
(To SCPSA)
P2
Center
S Hall
Plant Dahlberg
Russell Dam
Athena
Winder
Athens
Lexington
E. Watkinsville

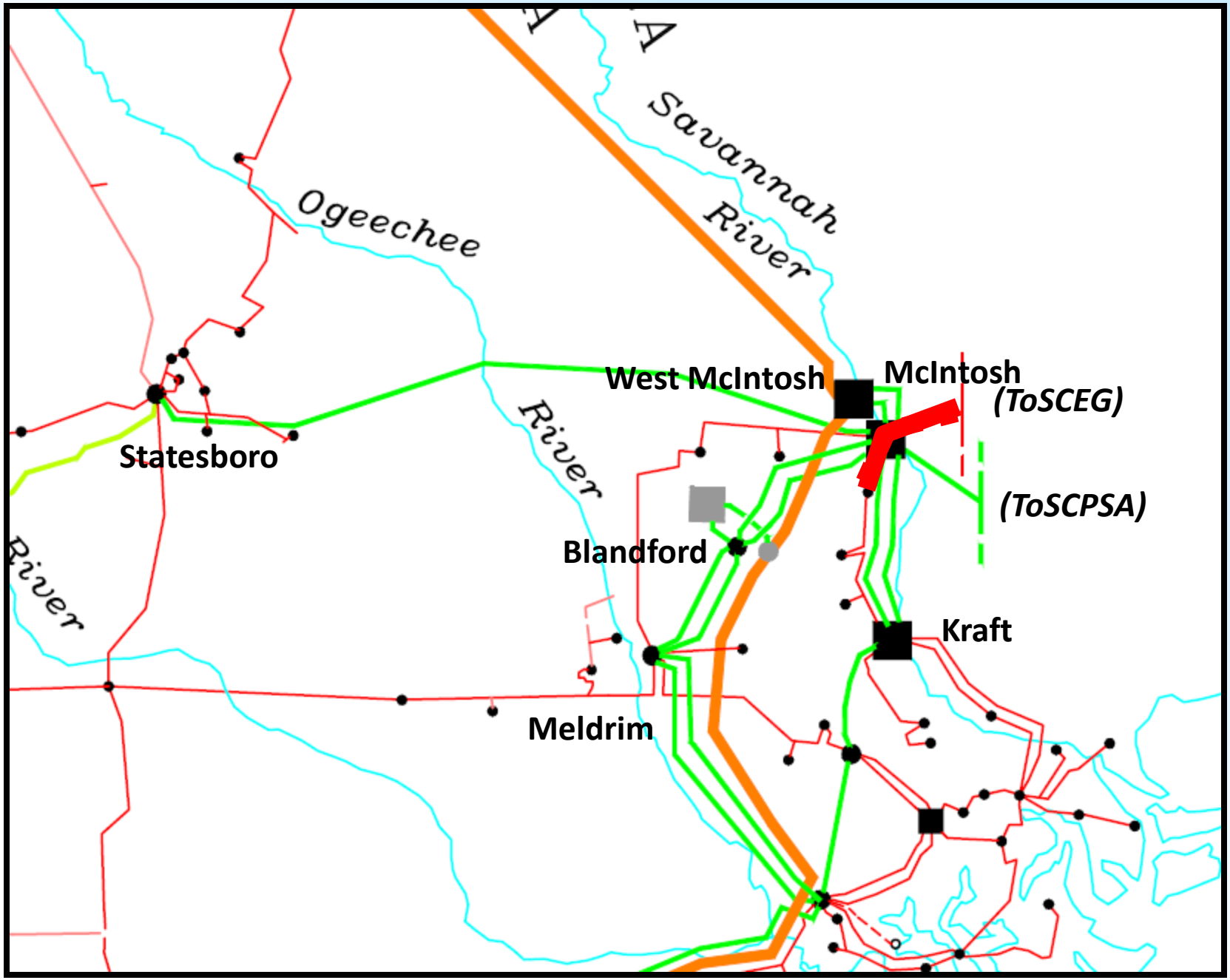
PJM West to SBA
3500 MW

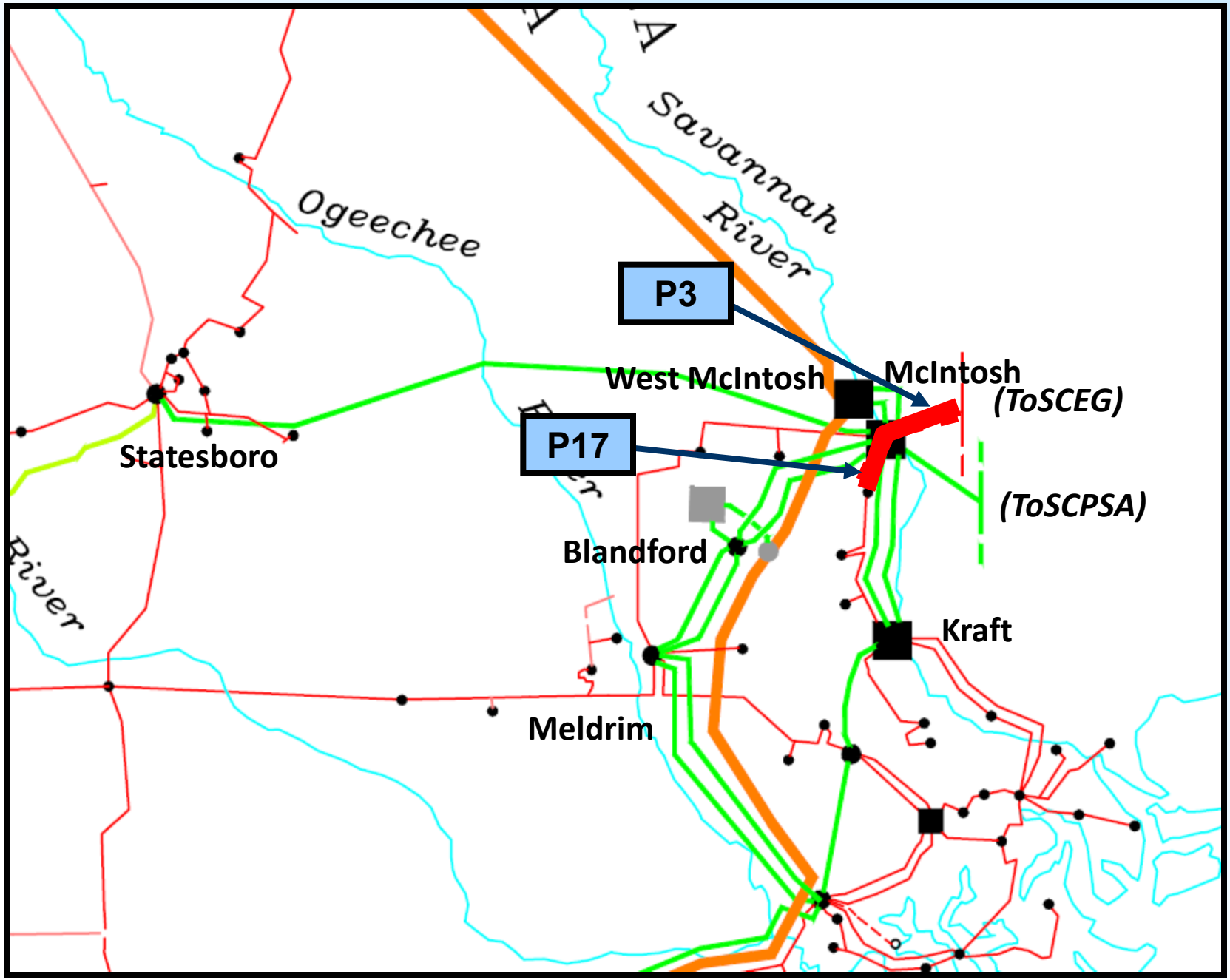
Significant Constraints – PASS 2

Limiting Elements	Rating (MVA)	Thermal Loading (%)	
		Without Request	With Request
McIntosh – Jasper 115 kV TL	254	97.4	128.2
McIntosh – GP Rincon 115 kV TL	181	94.6	101.4

Significant Constraints




Savannah River
Ogeechee River
River
River
Statesboro
West McIntosh
McIntosh
(ToSCEG)
(ToSCPSA)
Blandford
Kraft
Meldrim

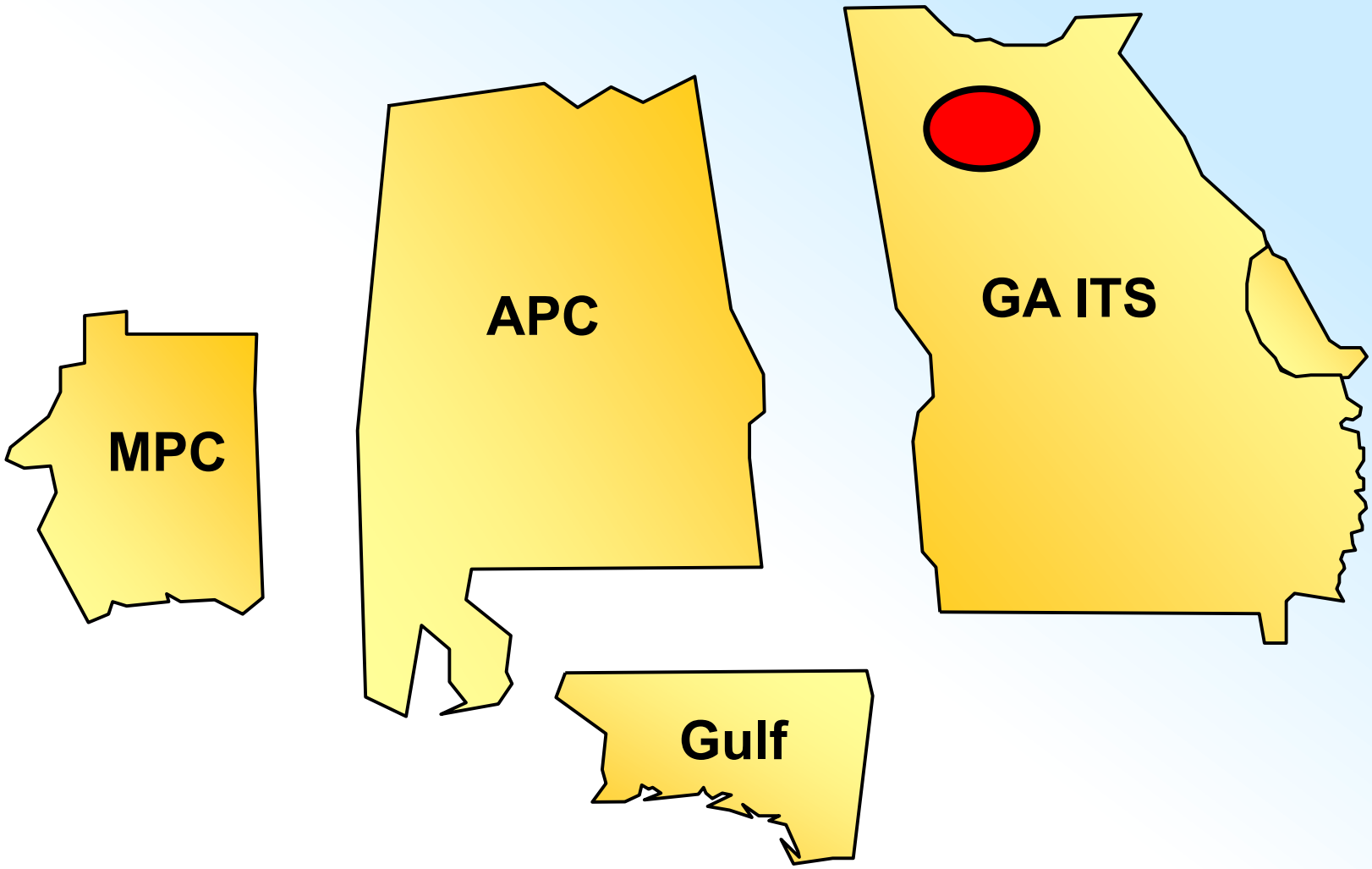

Savannah River
Ogeechee
P3
West McIntosh
McIntosh
(ToSCEG)
P17
Statesboro
(ToSCPSA)
Blandford
Kraft
Meldrim

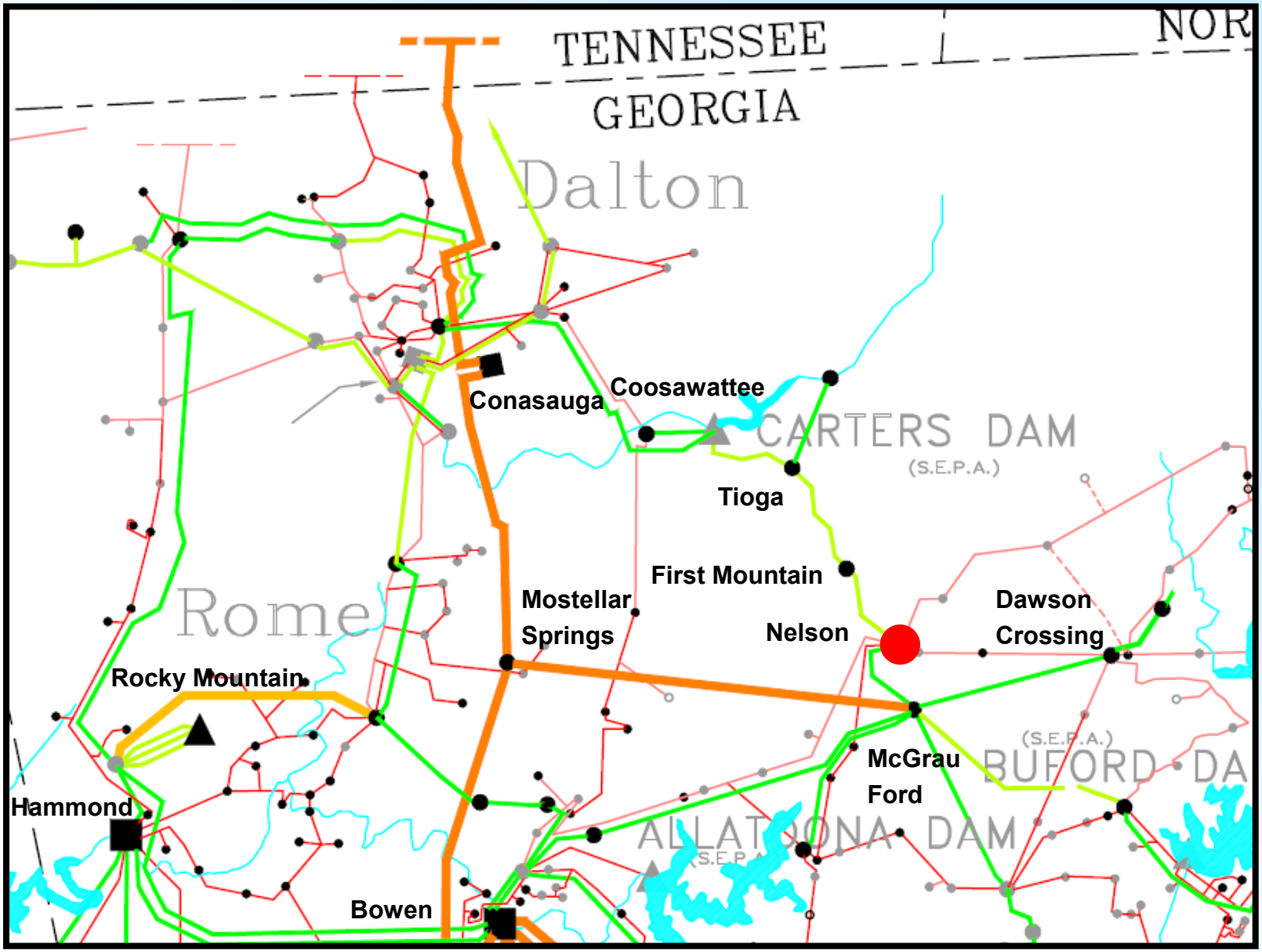
PJM West to SBA
3500 MW

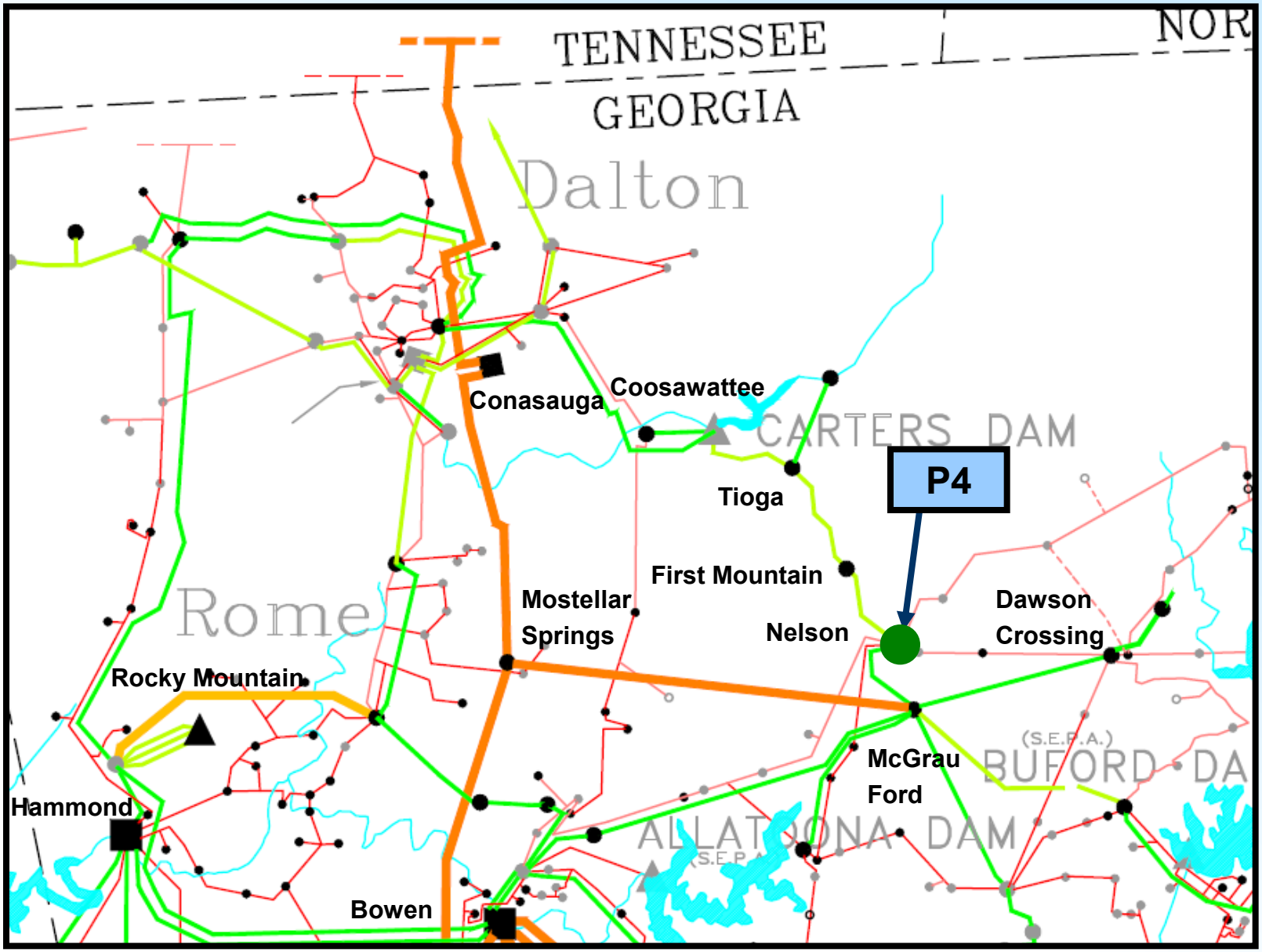
Significant Constraints – PASS 2 (cont.)

Limiting Elements	Rating (MVA)	Thermal Loading (%)	
		Without Request	With Request
Nelson 230 / 115 kV TL	176	99.5	100.7

Significant Constraints




TENNESSEE
GEORGIA
Dalton
Conasauga
Coosawattee
CARTERS DAM
(S.E.P.A.)
Tioga
First Mountain
Mostellar
Springs
Nelson
Dawson
Crossing
Rome
Rocky Mountain
McGrau
Ford
(S.E.P.A.)
Hammond
Bowen


TENNESSEE
GEORGIA
Dalton
Conasauga
Coosawattee
CARTERS DAM
P4
Tioga
First Mountain
Mostellar
Springs
Nelson
Dawson
Crossing
Rome
Rocky Mountain
McGrau
Ford
Hammond
Bowen

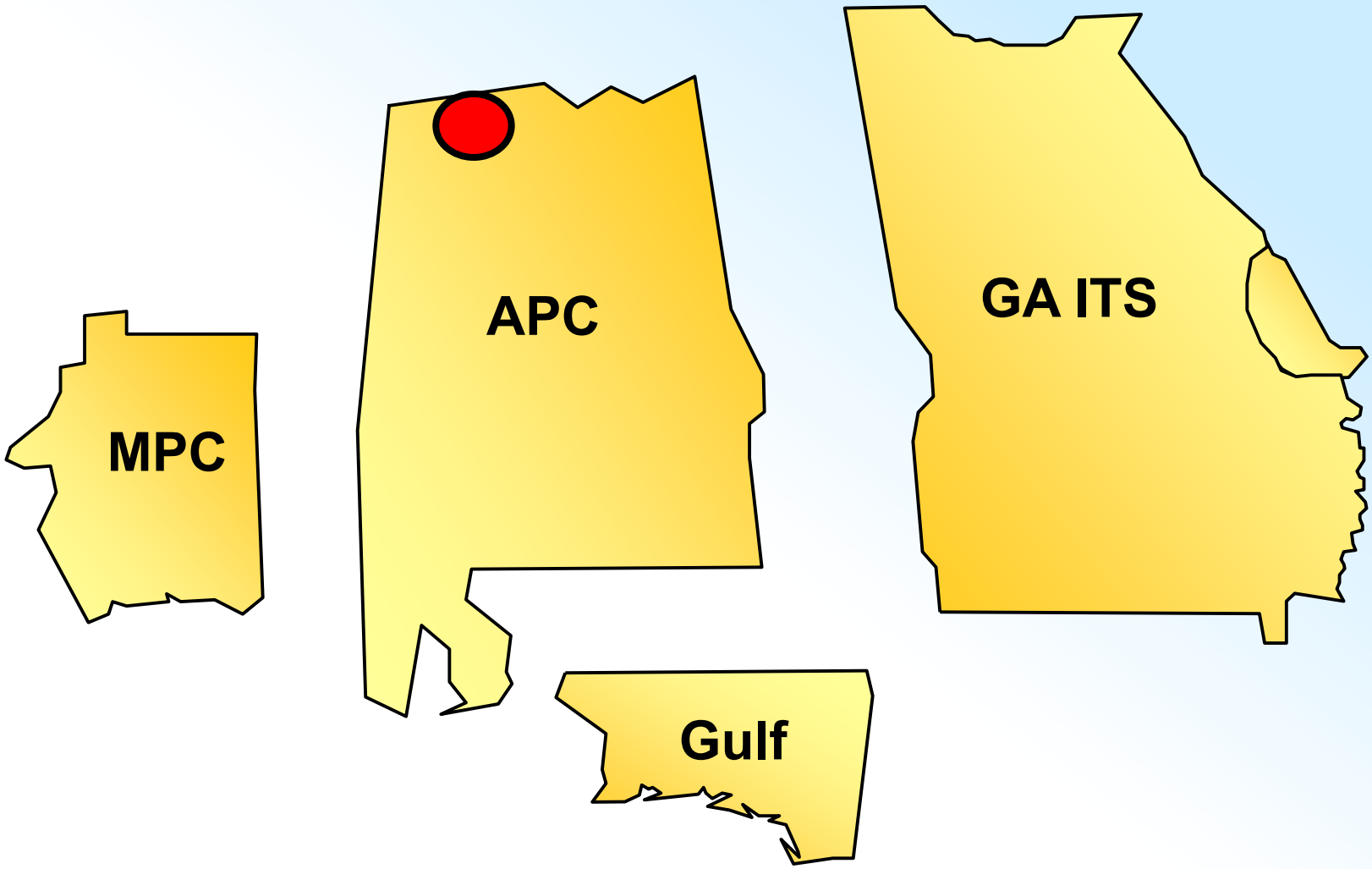
PJM West to SBA
3500 MW

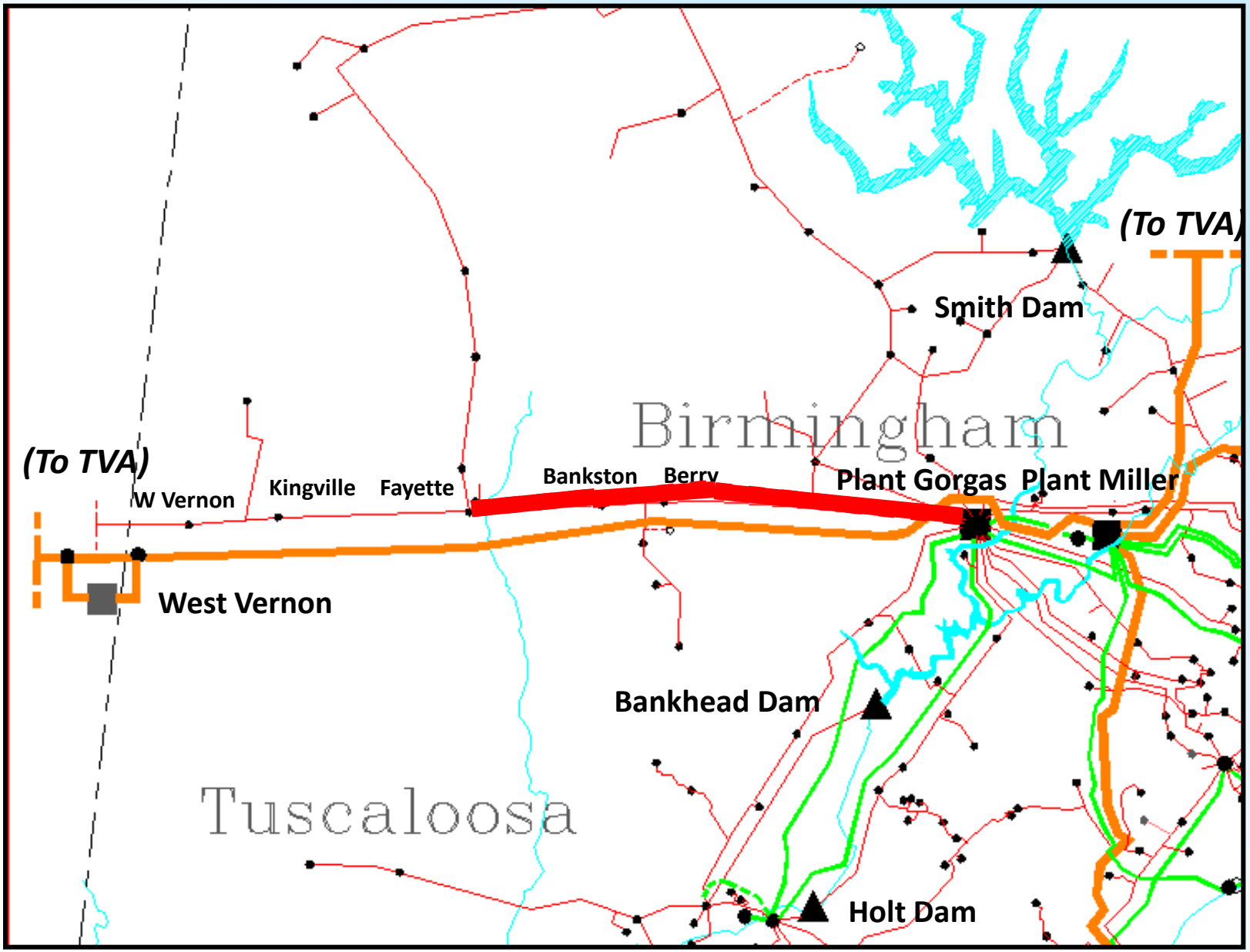
Significant Constraints – PASS 2 (cont.)

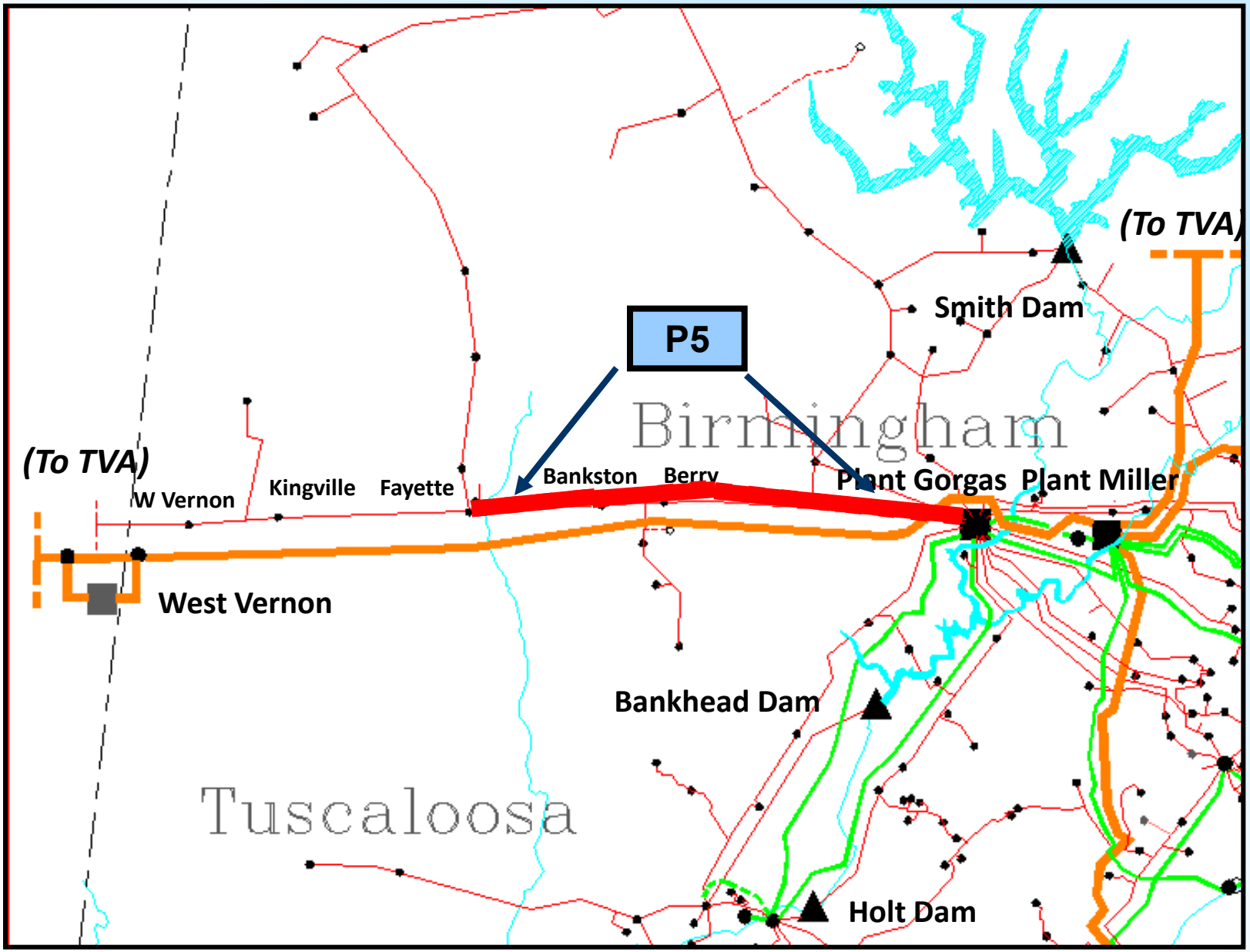
Limiting Elements	Rating (MVA)	Thermal Loading (%)	
		Without Request	With Request
Oakman Tap – Gorgas 161 kV TL	193	89.5	115.0
Oakman Tap – Berry 161 kV TL	193	89.9	115.5
Pitts & Midway Tap – Berry 161 kV TL	193	92.0	117.6
Pitts & Midway Tap – Bankston 161 kV TL	193	100.1(1)	125.8
Fayette CS – Bankston 161 kV TL	193	101.9(1)	127.6
Fayette TS – Fayette CS 161 kV TL	193	101.9(1)	127.6

(1) A current operating procedure is sufficient to alleviate this constraint without the addition of the proposed transfer. However, the additional transfer exacerbates the loading on this facility such that the operating procedure becomes insufficient.

Significant Constraints




(To TVA)
(To TVA)
Smith Dam
Birmingham
W Vernon
Kingville
Fayette
Bankston
Berry
Plant Gorgas
Plant Miller
West Vernon
Bankhead Dam
Tuscaloosa
Holt Dam

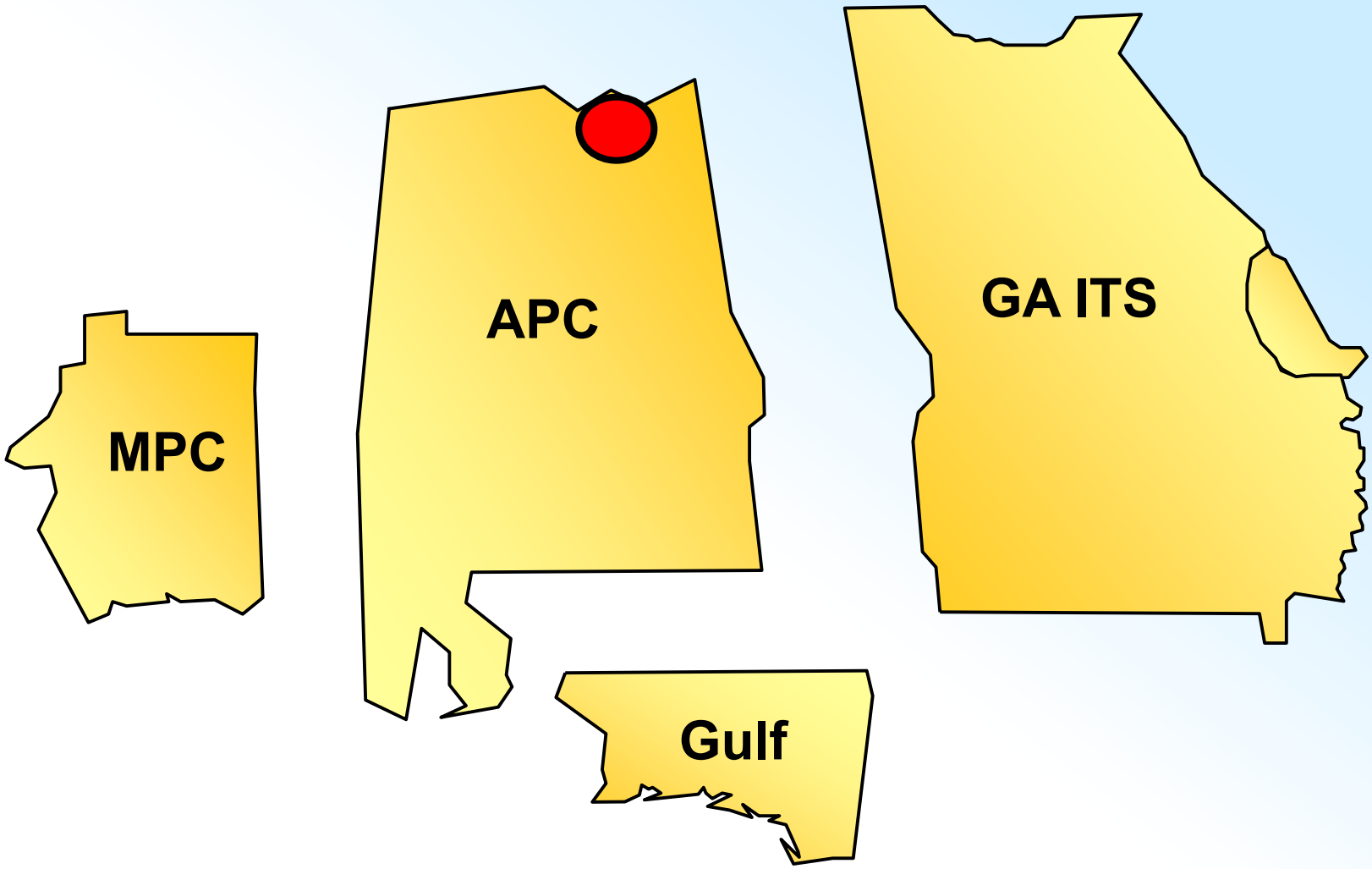

(To TVA)
Smith Dam
P5
Birmingham
(To TVA)
W Vernon
Kingville
Fayette
Bankston
Berry
Plant Gorgas
Plant Miller
West Vernon
Bankhead Dam
Tuscaloosa
Holt Dam

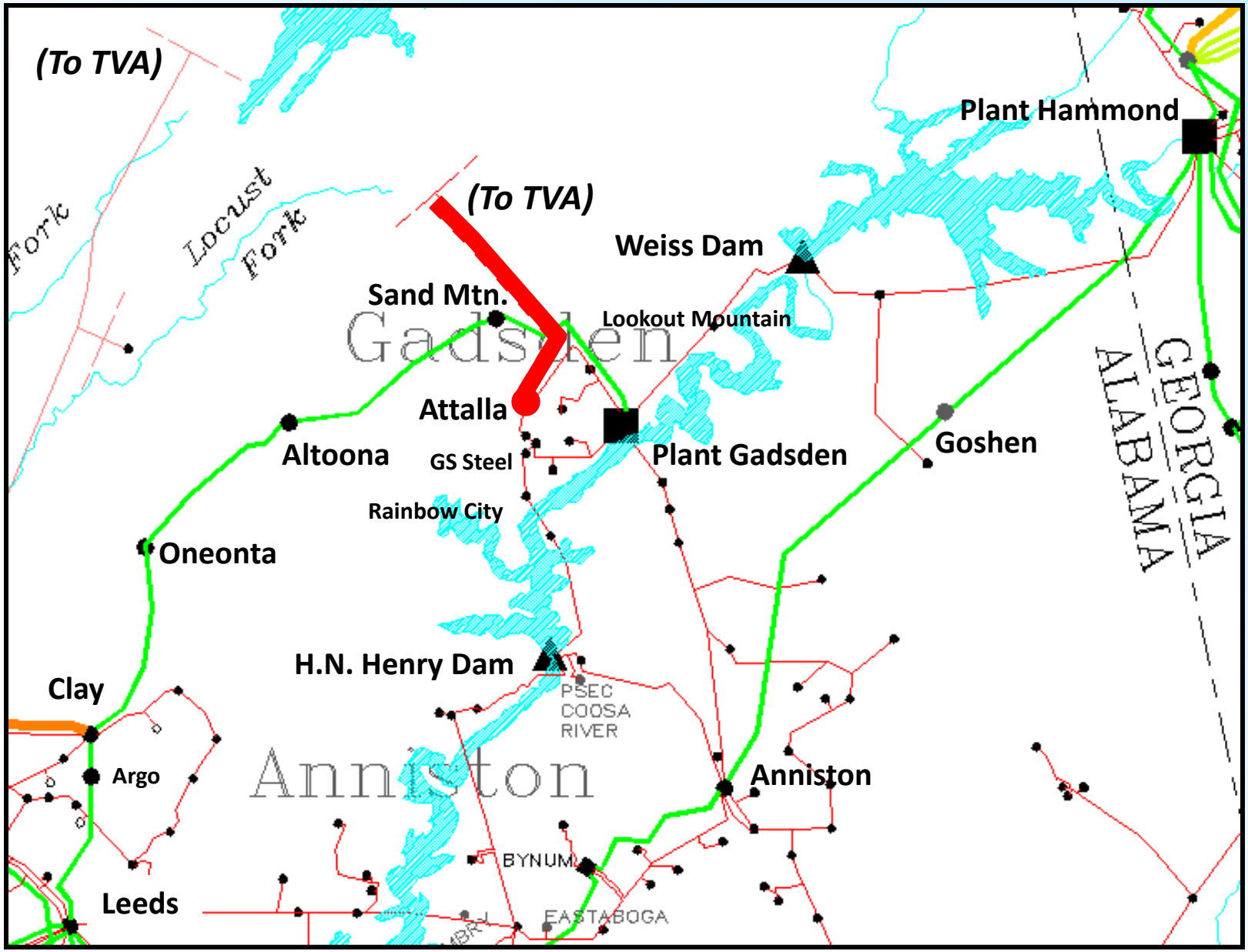
PJM West to SBA
3500 MW

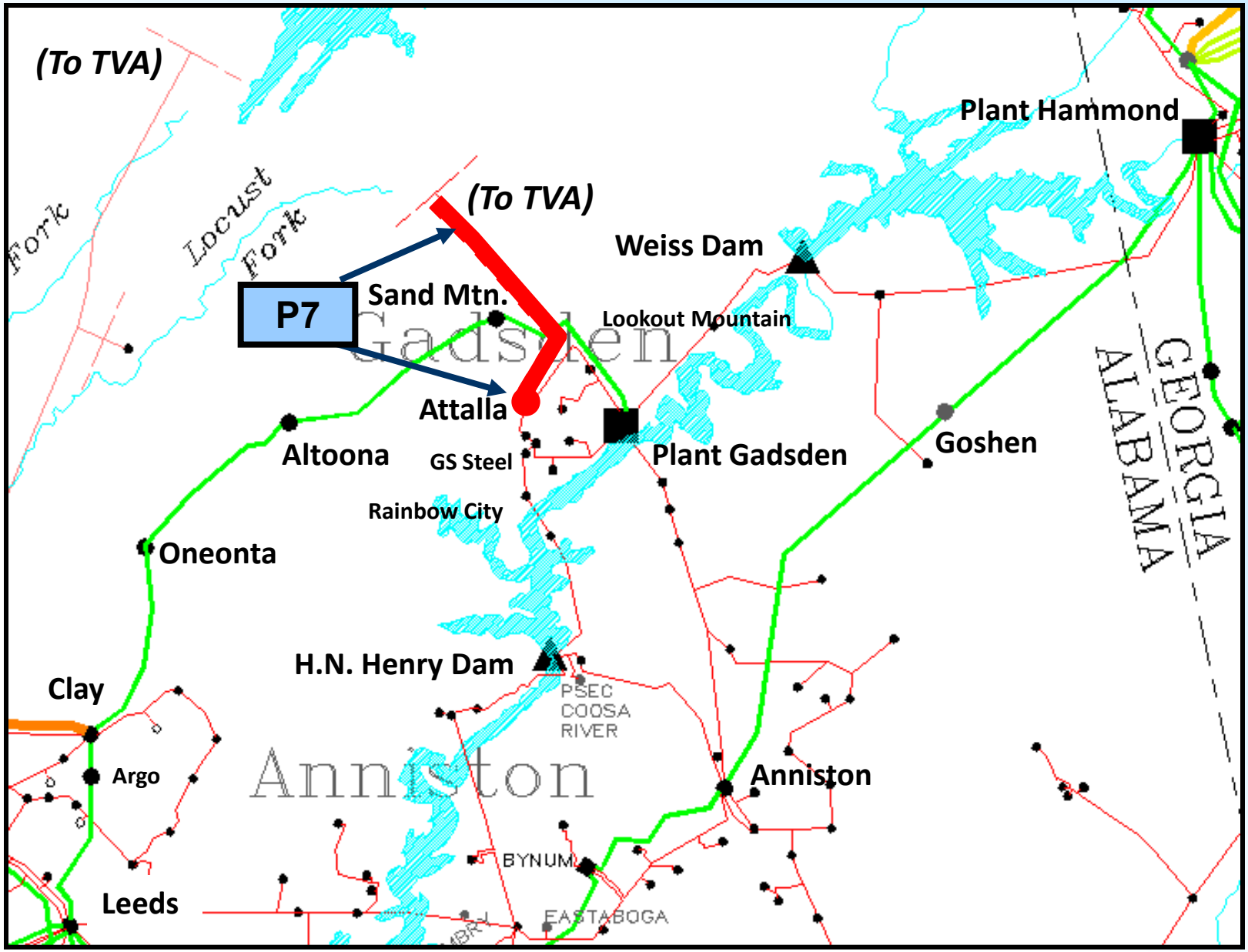
Significant Constraints – PASS 2 (Cont.)

Limiting Elements	Rating (MVA)	Thermal Loading (%)	
		Without Request	With Request
Attalla 161 / 115 kV Transformer 1	99	83.4	106.0
Attalla 161 / 115 kV Transformer 2	111	75.7	103.4
Attalla – Albertville 161 kV TL	193	95.0	113.2

Significant Constraints




(To TVA)
(To TVA)
Plant Hammond
Weiss Dam
Sand Mtn.
Lookout Mountain
Gadsden
Attalla
Altoona
GS Steel
Plant Gadsden
Goshen
Rainbow City
Oneonta
H.N. Henry Dam
PSEC
COOSA
RIVER
Clay
Argo
Anniston
Anniston
BYNUM
Leeds
EASTABOGA
GEORGIA
ALABAMA


(To TVA)
Plant Hammond
(To TVA)
Weiss Dam
P7
Sand Mtn.
Lookout Mountain
Attalla
Altoona
GS Steel
Plant Gadsden
Goshen
Rainbow City
Oneonta
H.N. Henry Dam
Clay
PSEC
COOSA
RIVER
Argo
Anniston
BYNUM
Leeds
EASTABOGA
GEORGIA
ALABAMA

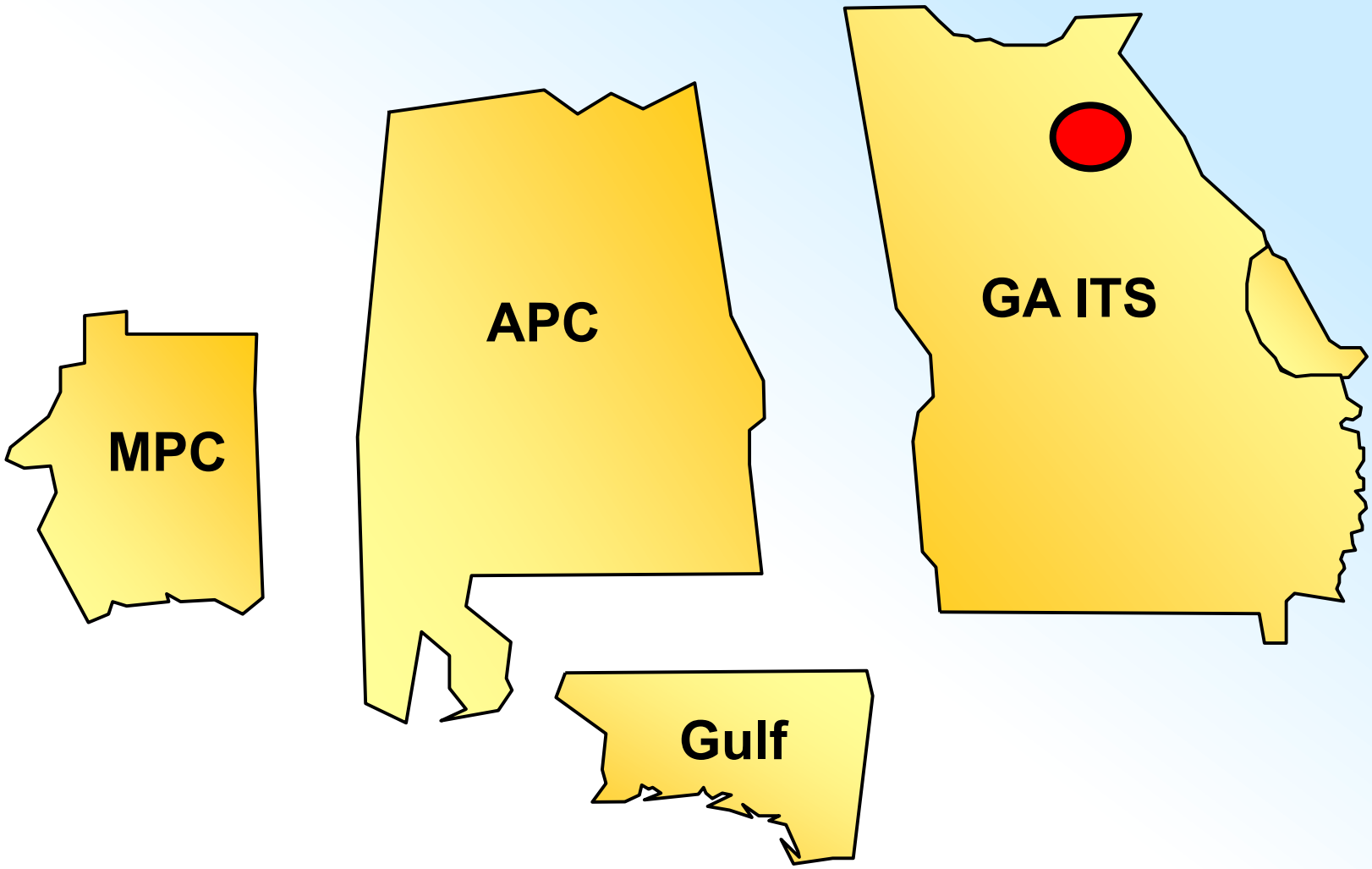
PJM West to SBA
3500 MW

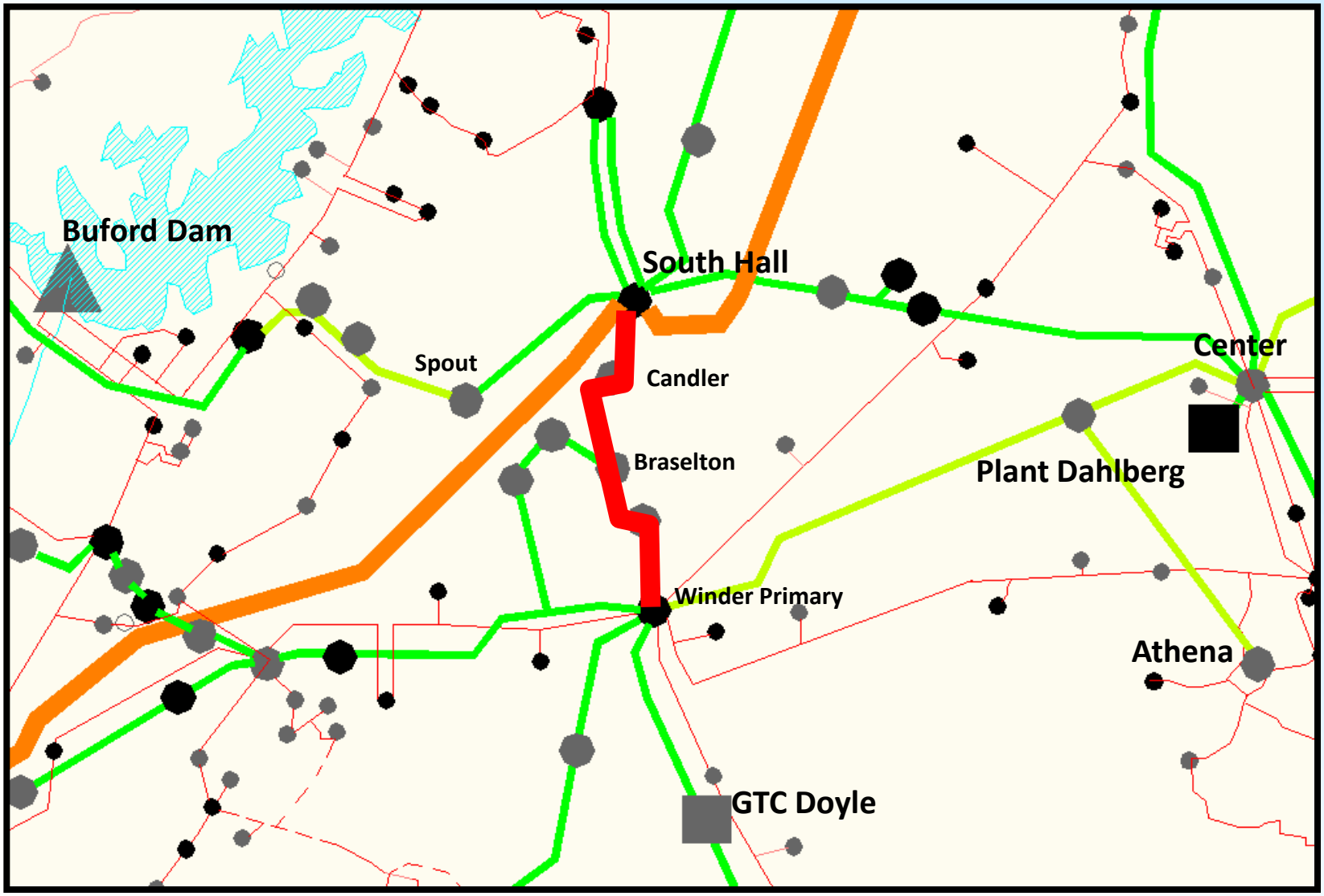
Significant Constraints – PASS 2 (cont.)

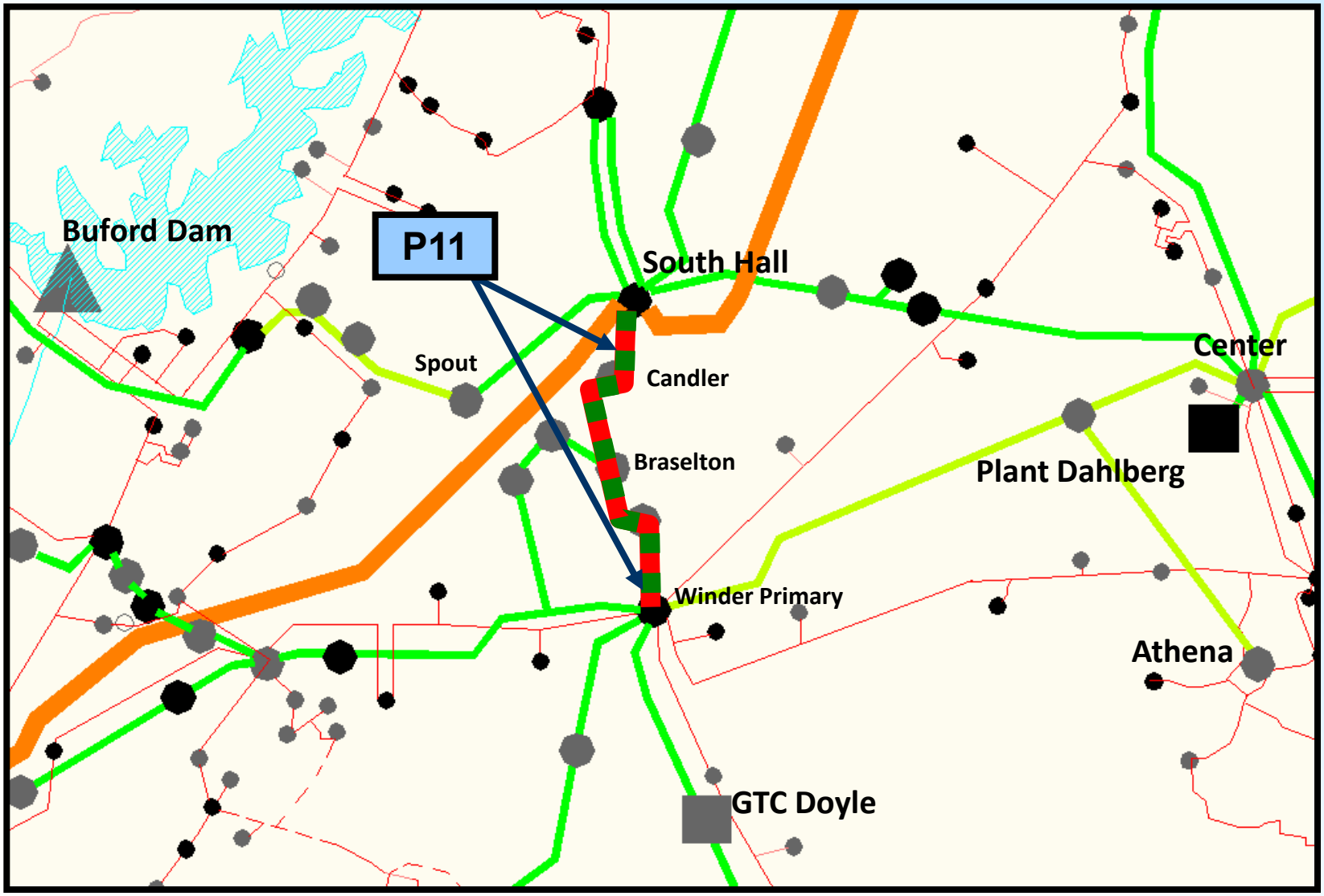
Limiting Elements	Rating (MVA)	Thermal Loading (%)	
		Without Request	With Request
South Hall – Candler 230 kV TL	509	92.3	124.2
Candler – Braselton 230 kV TL	509	86.2	118.0
Braselton – Winder 230 kV TL	497	75.1	107.0

Southeastern Regional
TRANSMISSION PLANNING

Significant Constraints




Buford Dam
South Hall
Spout
Candler
Braselton
Center
Plant Dahlberg
Winder Primary
Athena
GTC Doyle

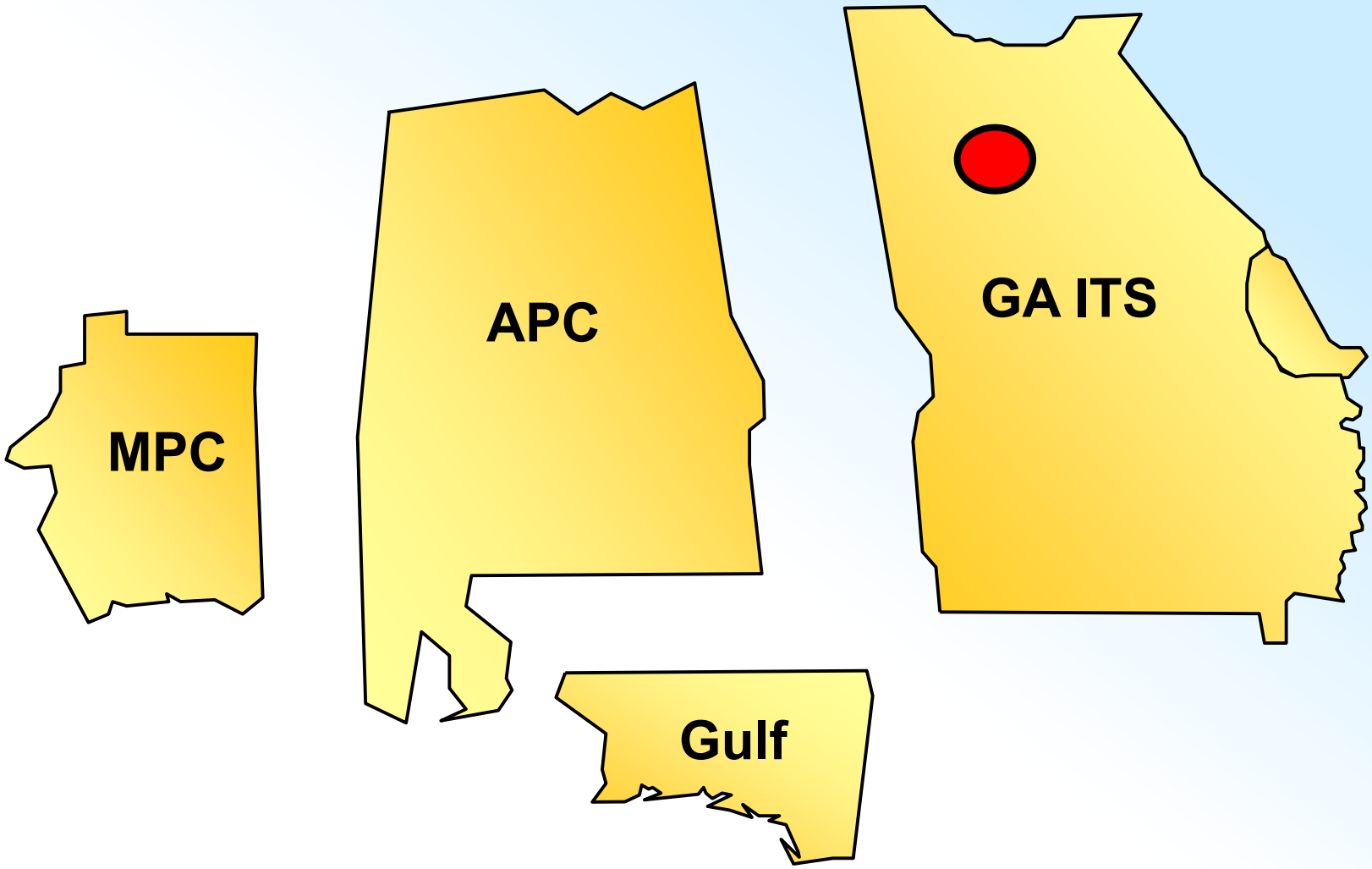

Buford Dam
P11
South Hall
Spout
Candler
Braselton
Center
Plant Dahlberg
Winder Primary
Athena
GTC Doyle

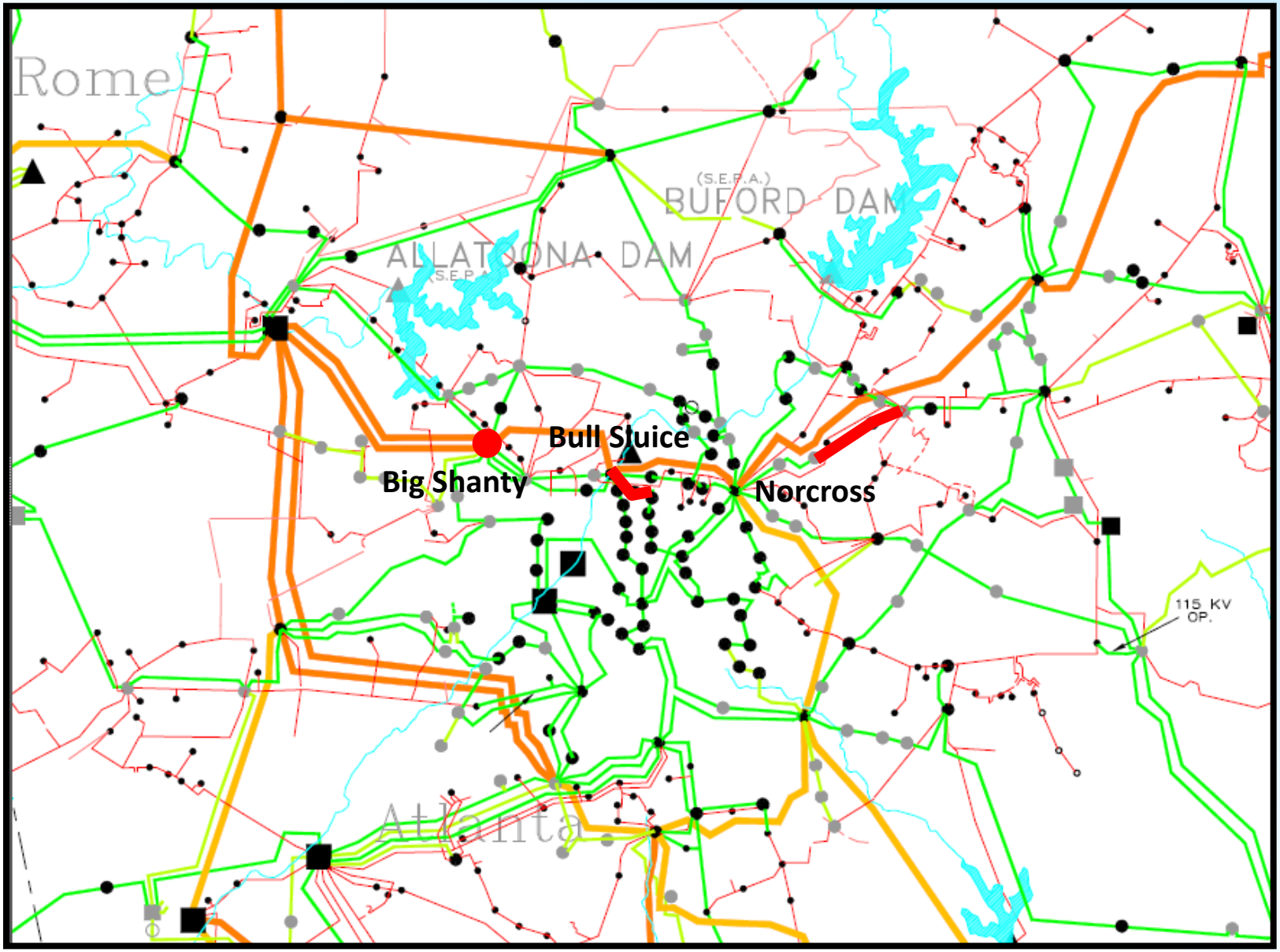
PJM West to SBA
3500 MW

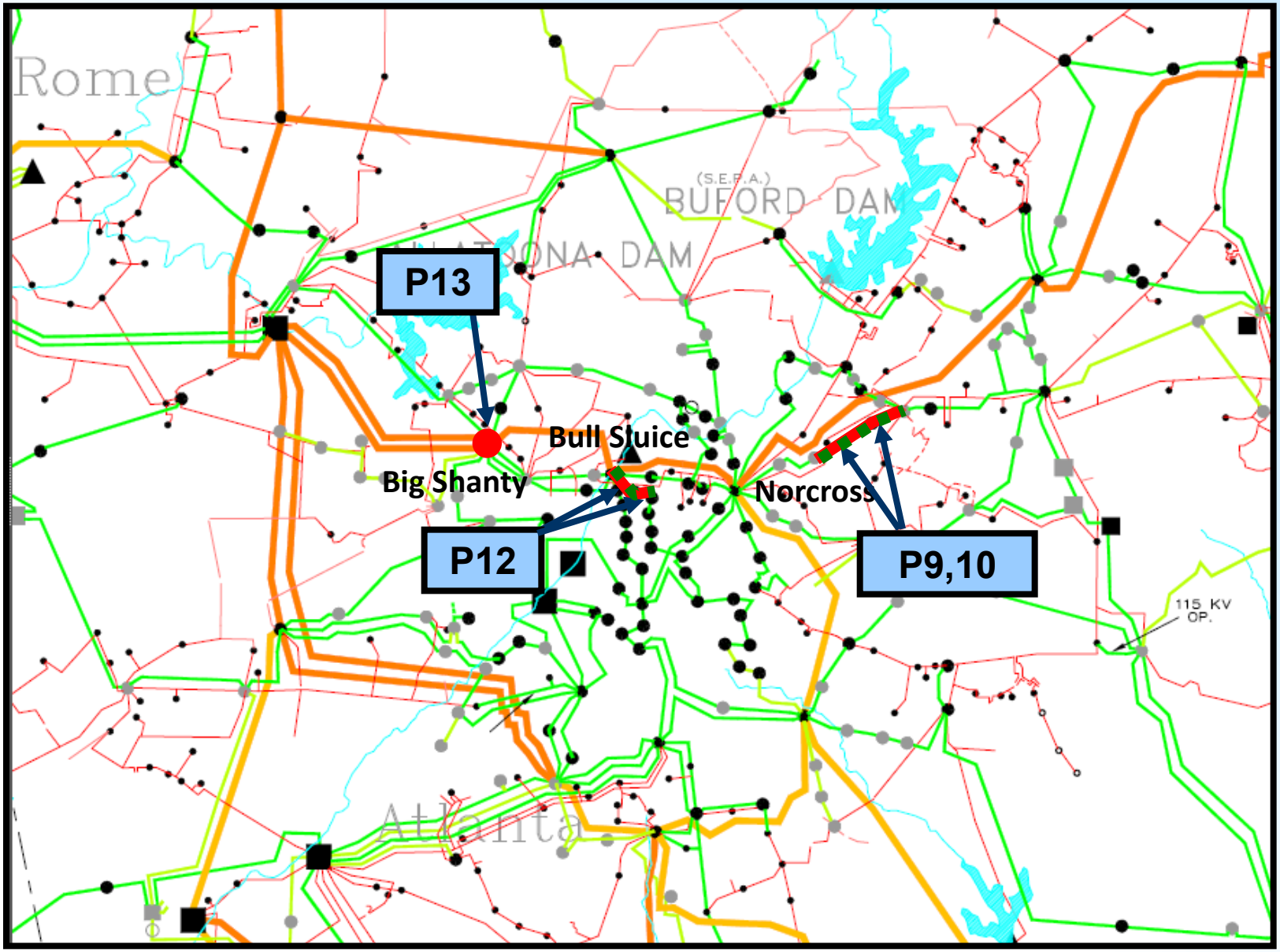
Significant Constraints – PASS 2 (cont.)

Limiting Elements	Rating (MVA)	Thermal Loading (%)	
		Without Request	With Request
Big Shanty 500 / 230 kV TL	1344	81.8	101.2
Bull Sluice – N Springs 230 kV TL	539	95.8	111.0
N Springs – North Park 230 kV TL	539	92.5	107.6
Lawrenceville – Purcell Rd 230 kV TL	509	90.7	102.4
Purcell Rd – Boggs Rd 230 kV	509	98.0	109.8

Significant Constraints




Rome
(S.E.P.A.)
BUFORD DAM
ALLATOONA DAM
(S.E.P.A.)
Bull Sluice
Big Shanty
Norcross
115 KV
OP.
Atlanta


Rome
(S.E.P.A.)
BUFORD DAM
P13
Bull Sluice
Big Shanty
Norcross
P12
P9,10
115 KV
OP.
Atlanta

PJM West to SBA
3500 MW

Projects Identified

Item	Proposed Enhancements	Cost ($)
P1	Widows Creek – Bowen 500 kV TL	$141,000,000(1)
P2	Russell Dam – Athena 230 kV TL	$60,000,000
P3	McIntosh – Yemassee 115 kV TL	$2,100,000(1)
P4	Nelson Substation	$900,000(2)
P5	Fayette – Gorgas 161 kV TL	$31,800,000
P6	Adamsville – Jack McDonough 230 kV TL	$1,500,000
P7	Attalla 161 / 115 kV Transformers	$19,800,000(1)
	Attalla – Albertville 161 kV TL	
P8	Morton – Forest Industrial 115 kV TL	$1,500,000(1)
P9	Lawrenceville – Norcross 230 kV TL	$2,400,000
-	- Continued -	-

(1) Cost provided is for the portion of the solution located within the participating Transmission Owners' territory

(2) Advancement cost associated with a project in the latest ten year expansion plan

PJM West to SBA
3500 MW

Projects Identified

Item	Proposed Enhancements	Cost ($)
-	- Continued -	-
P10	Lawrenceville – Norcross 230 kV TL	$3,000,000
P11	South Hall – Winder 230 kV TL	$17,400,000
P12	Bull Sluice – North Park 230 kV TL	$3,200,000
P13	Big Shanty Substation	$34,000,000
P14	Lawrenceville – Moon Road 115 kV TL	$1,700,000
P15	Bessemer Substation	$6,200,000
-	- Continued -	-

PJM West to SBA
3500 MW

Projects Identified

Item	Proposed Enhancements	Cost ($)
-	- Continued -	-
P16	Lloyd Shoals – Porterdale 115 kV TL	$6,000,000
P17	Goshen – McIntosh 115 kV TL	$200,000(1)
P18	Porterdale Substation	$250,000

(1) Advancement cost associated with a project in the latest ten year expansion plan

SBA Total Cost (2012$) = $332,950,000

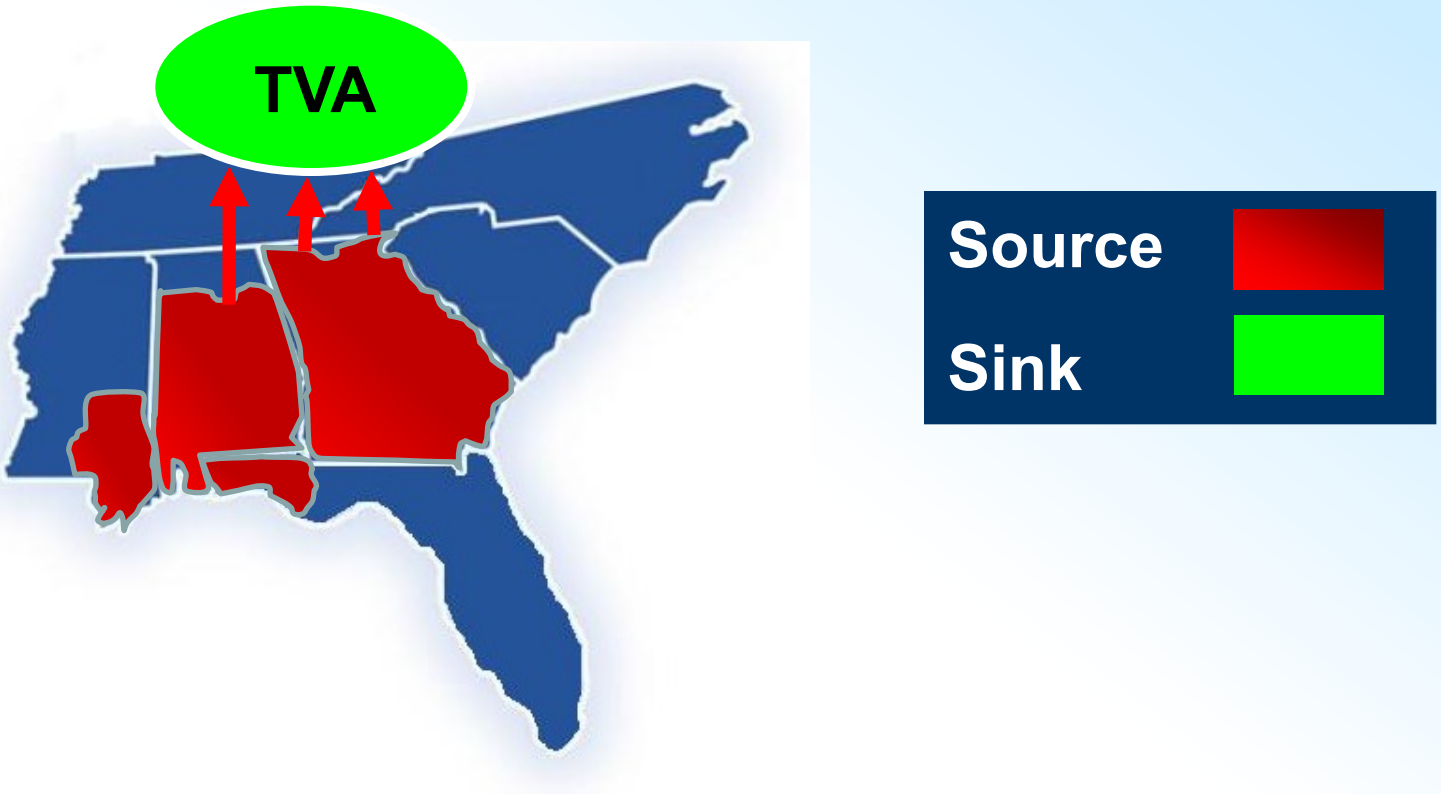
Questions on the PJM West to SBA Transfer?

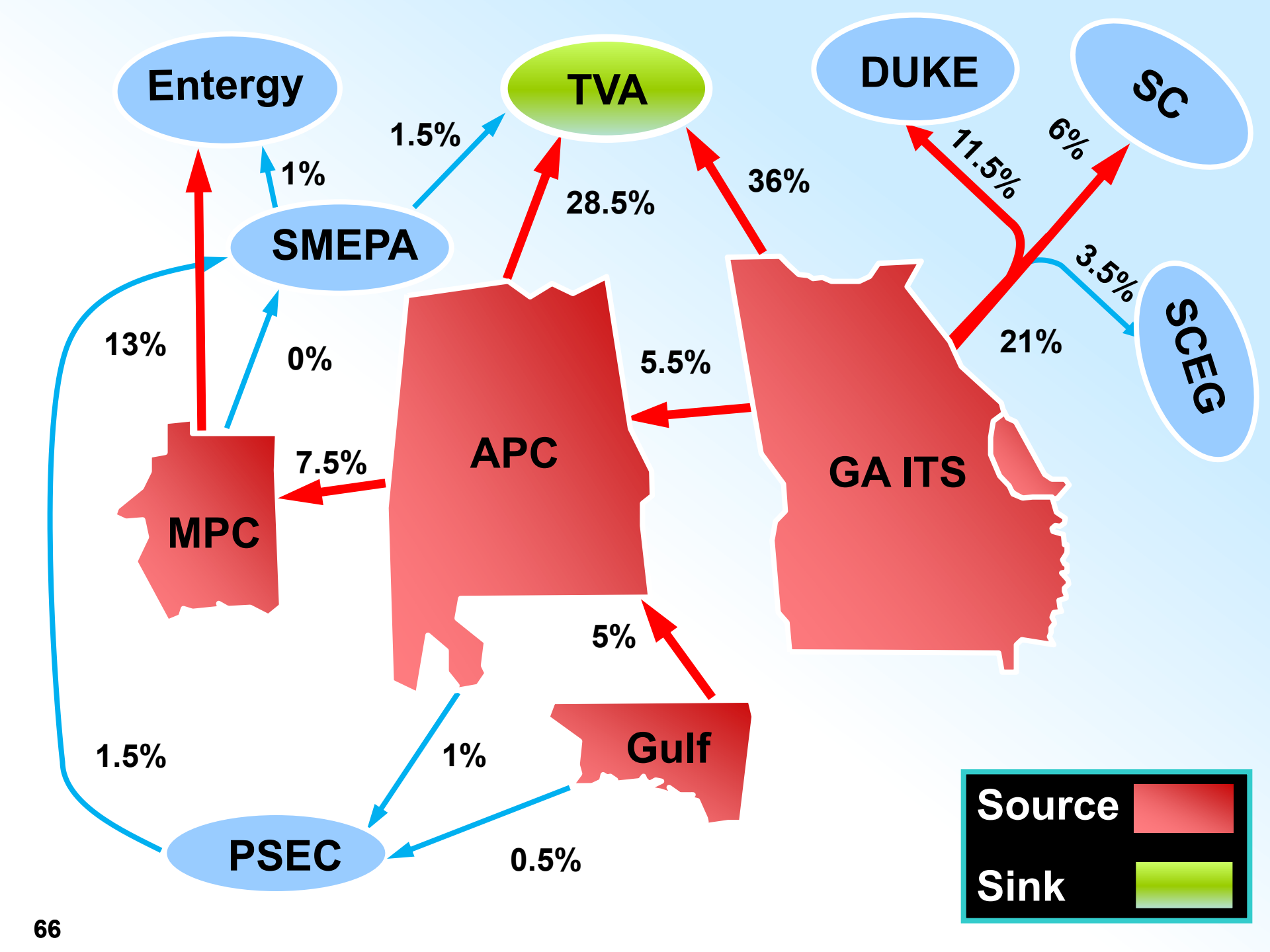
SBA
to
TVA Border

1000 MW

SBA to TVA Border 1000 MW

- Transfer Type: Generation to Load (2013)
- Source: Generation within the SBA
- Sink: Uniform load increase in TVA




Entergy
TVA
DUKE
SC
SMEPA
SCEG
APC
GA ITS
MPC
Gulf
PSEC
1.5%
1%
28.5%
36%
11.5%
6%
3.5%
21%
13%
0%
5.5%
7.5%
5%
1.5%
1%
0.5%
Source
Sink

SBA to TVA Border
1000 MW

Transmission System Impacts

- Thermal Constraints Identified:
  - None

Total Cost (2012$) = $0

2012 SERTP

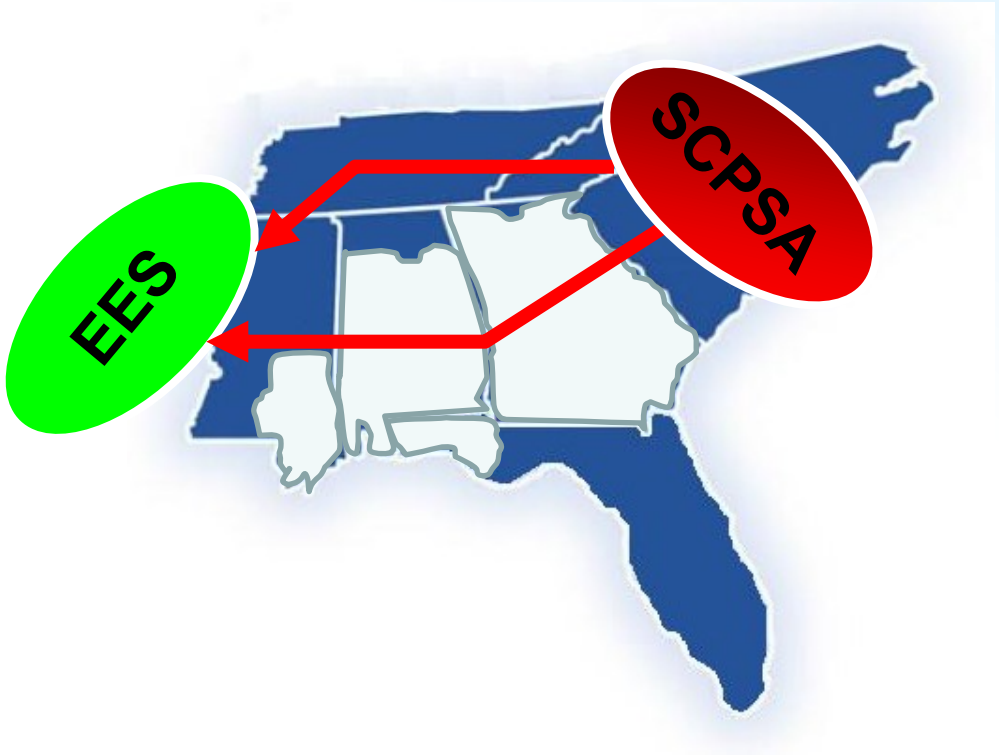
Questions on the SBA to TVA Border transfer?

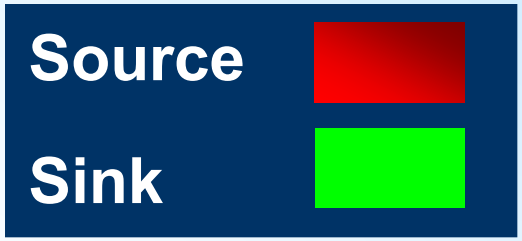
SCPSA Border
to
EES Border

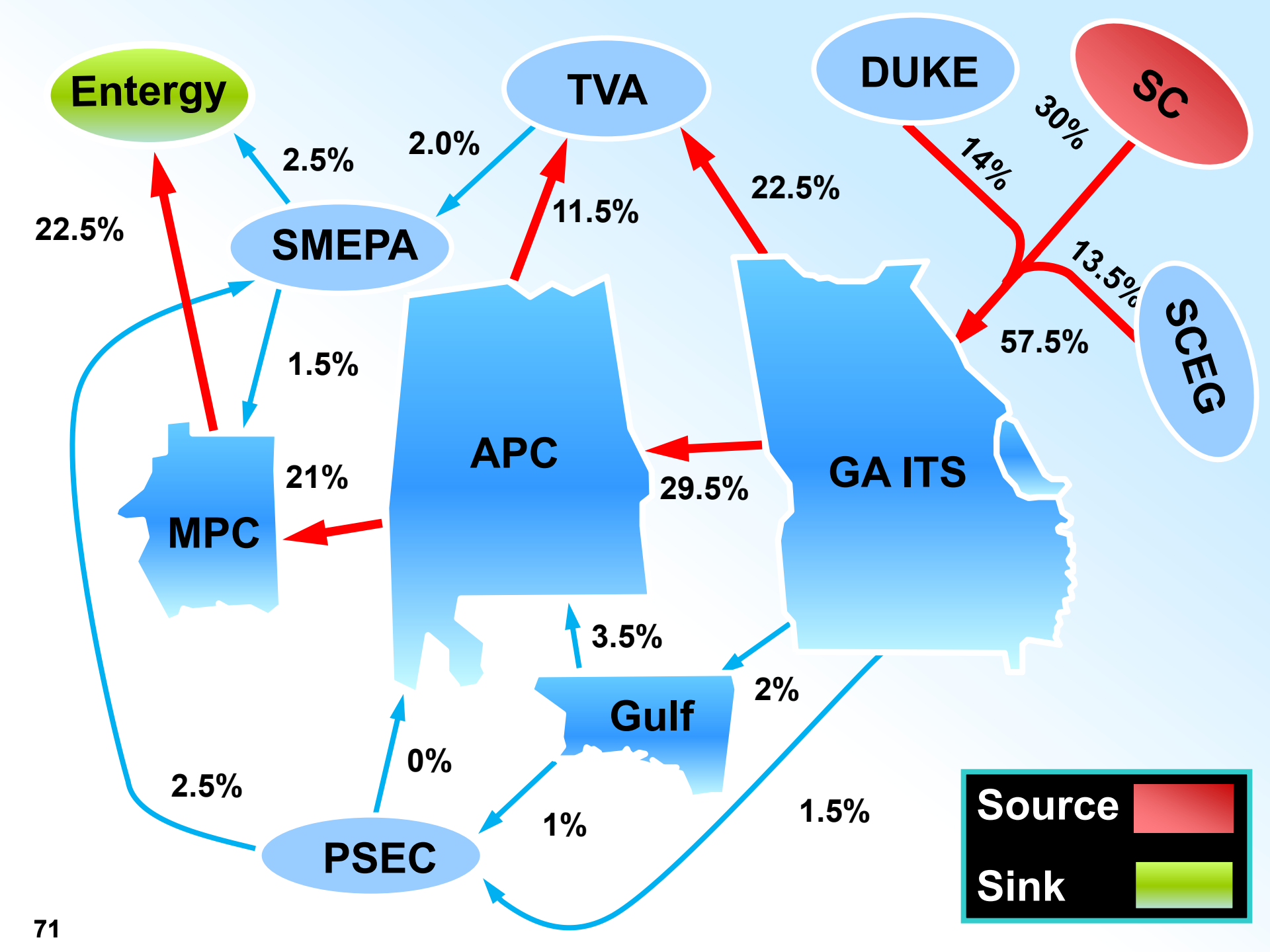
500 MW

SCPSA Border to EES Border 500 MW

- Transfer Type: Load to Load (2013)
- Source: Uniform load reduction in SCPSA
- Sink: Uniform load increase in EES






Entergy
TVA
DUKE
SC
2.5%
2.0%
30%
14%
22.5%
22.5%
11.5%
SMEPA
13.5%
SCEG
57.5%
1.5%
APC
GA ITS
MPC
21%
29.5%
3.5%
2%
Gulf
0%
2.5%
1%
1.5%
PSEC
Source
Sink

SCPSA Border to EES Border 500 MW

Transmission System Impacts

- Thermal Constraints Identified:
  - None

Total Cost (2012$) = $0

2012 SERTP

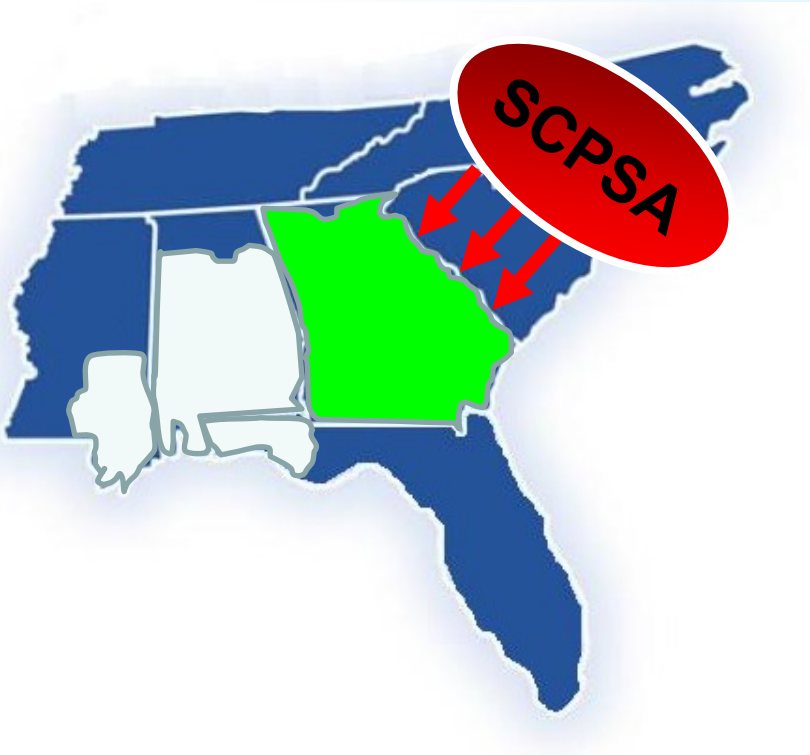
Questions on the SCPSA Border to EES Border transfer?

SCPSA Border
to
GTC

200 MW

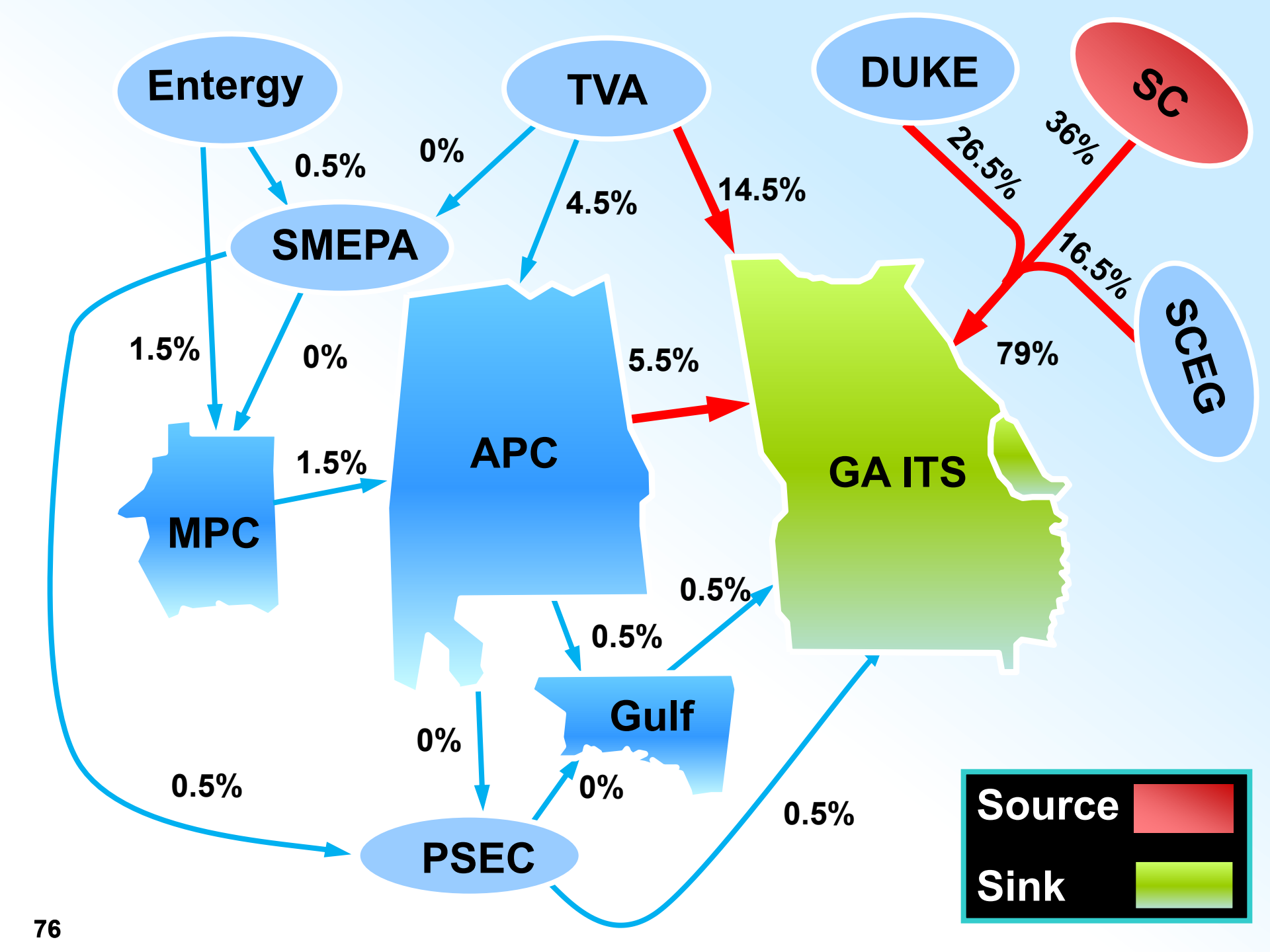
SCPSA Border to GTC 200 MW

- Transfer Type: Load to Generation (2013)
- Source: Uniform load reduction in SCPSA
- Sink: GTC Generation



Source

Sink


Entergy
TVA
DUKE
SC
SMEPA
APC
GA ITS
MPC
Gulf
PSEC
SCEG
0.5%
0%
4.5%
14.5%
26.5%
36%
16.5%
1.5%
0%
5.5%
79%
1.5%
0.5%
0.5%
0%
0%
0.5%
0.5%
Source
Sink

SCPSA Border to GTC
200 MW

Transmission System Impacts

- Thermal Constraints Identified:
  - None

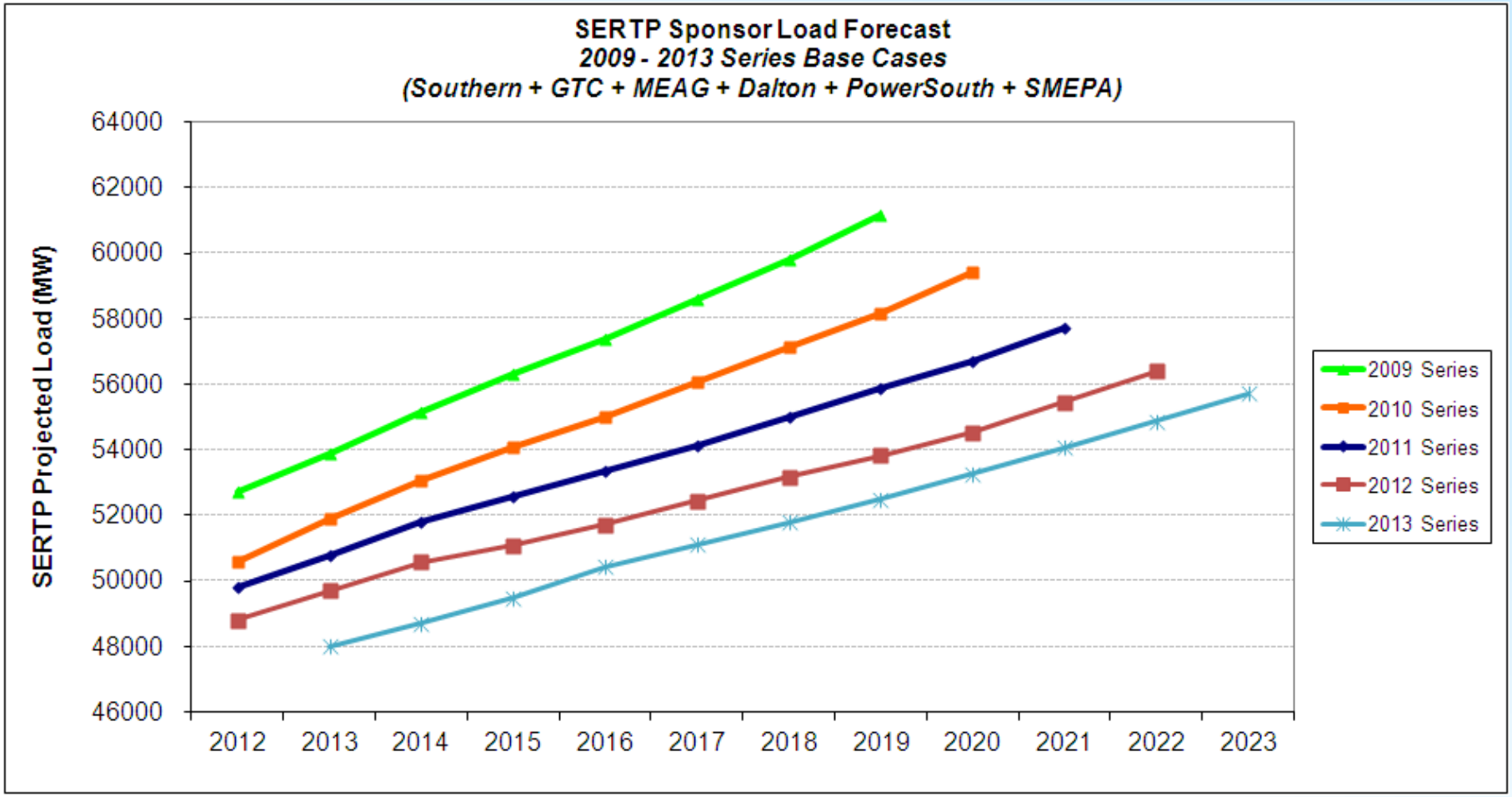
Total Cost (2012$) = $0

2012 SERTP

Questions on the SCPSA Border to GTC Transfer?

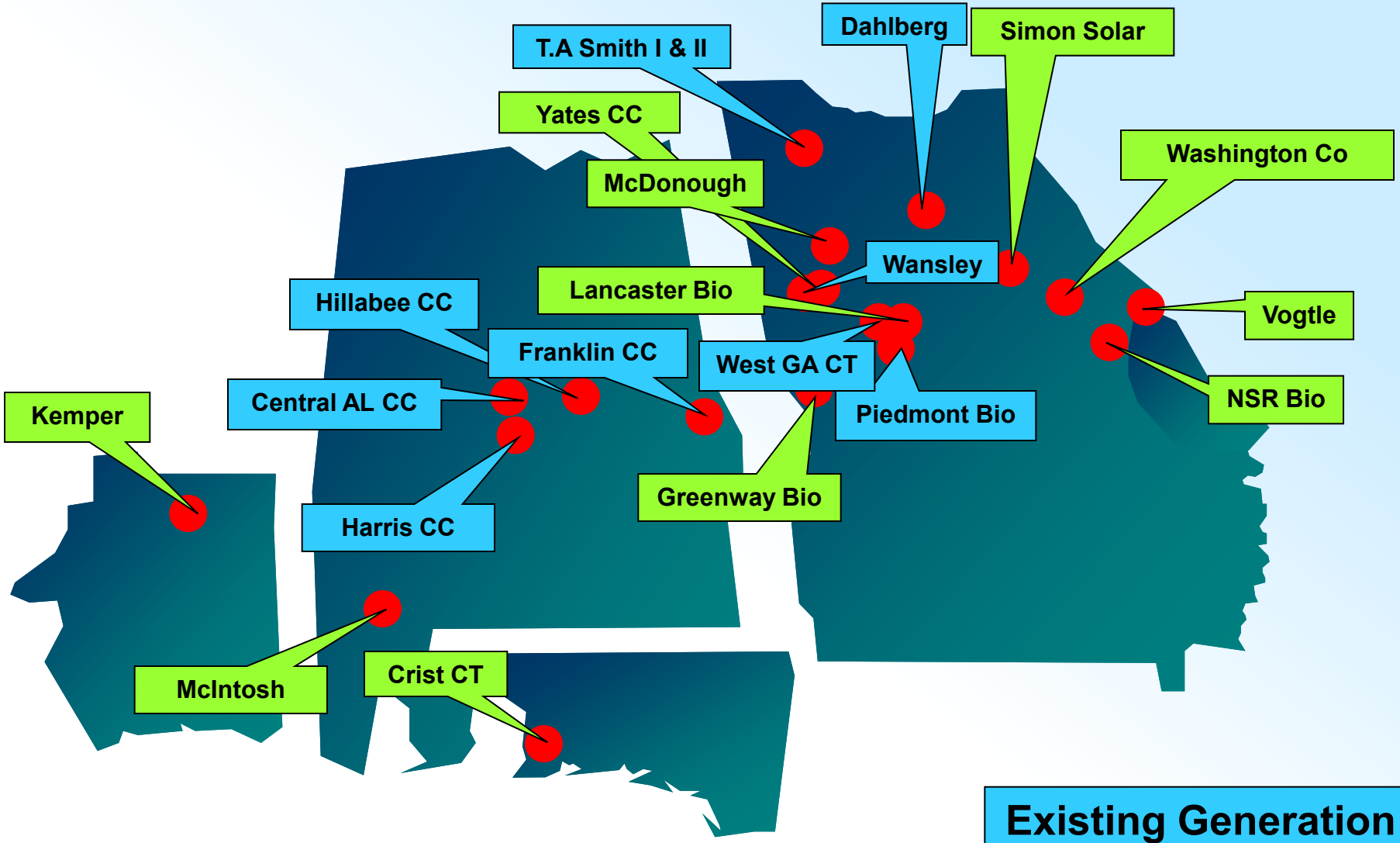
Preliminary Modeling Assumptions 2013

2013 Load Forecast



Southeastern Regional
TRANSMISSION PLANNING

2013 Regional Generation Assumptions



2013 Regional Generation Assumptions

The following tables depict changes in the generation assumptions for the 2013 Transmission Expansion Planning Process[1]

SOUTHERN

Site	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
McDonough CC 6	841	841	841	841	841	841	841	841	841	841	841
Central Alabama CC	885	885	885	885	885	885	885	885	885	885	0
Piedmont Biomass	50	50	50	50	50	50	50	50	50	50	50
Vogtle 1	538	538	538	538	538	538	538	538	538	538	538
Greenway Biomass	--	50	50	50	50	50	50	50	50	50	50
Baconton CT	197	0	--	--	--	--	--	--	--	--	--
Dahlberg CT	584	292	367	367	367	367	367	367	367	367	367
Kemper IGCC	--	510	510	510	510	510	510	510	510	510	510
Branch 1	266	0	--	--	--	--	--	--	--	--	--

[1]The years shown in the following tables represent Summer Peak conditions

2013 Regional Generation Assumptions

SOUTHERN (Cont.)

Site	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Branch 2	325	0	--	--	--	--	--	--	--	--	--
NSR Biomass	--	20	20	20	20	20	20	20	20	20	20
Simon Solar	--	--	30	30	30	30	30	30	30	30	30
Vogtle 2	584	584	540	540	540	540	540	540	540	540	540
West Georgia CT	--	--	298	298	298	298	298	298	298	298	298
Franklin 2 CC	--	--	625	0	--	--	--	--	--	--	--
Gaston 1-4	411	411	465	465	465	465	465	465	465	465	465
Hammond 1	89	89	89	110	110	110	110	110	110	110	110
Hammond 3	89	89	89	110	110	110	110	110	110	110	110
Harris CC 1	--	--	--	625	625	625	625	625	625	625	625

2013 Regional Generation Assumptions

SOUTHERN (Cont.)

Site	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Wansley CC 6	561	561	561	561	0	--	--	--	--	--	--
Vogtle 3	--	--	--	--	504	504	504	504	504	504	504
Vogtle 4	--	--	--	--	--	504	504	504	504	504	504
Harris CC 2	628	628	628	628	628	628	0	--	--	--	--
Crist CT	--	--	--	--	--	--	--	--	--	--	300
Yates CC	--	--	--	--	--	--	--	--	--	--	940

Southeastern Regional TRANSMISSION PLANNING

2013 Regional Generation Assumptions

GTC

Site	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Tiger Creek CT	302	302	462	0	--	--	--	--	--	--	--
Effingham	480	480	480	0	--	--	--	--	--	--	--
Lindsay Hill CC	455	500	500	300	300	300	300	300	300	300	300
Franklin CC 2	625	625	0	625	625	625	625	625	625	625	625
Dahlberg CT	--	75	262	375	375	375	375	375	375	375	375
Branch	90	0	--	--	--	--	--	--	--	--	--
Hammond 2	21	0	--	--	--	--	--	--	--	--	--
Gaston 1&2	104	104	0	--	--	--	--	--	--	--	--
Santa Rosa	225	225	0	--	--	--	--	--	--	--	--
McManus CT	30	30	0	--	--	--	--	--	--	--	--
Mitchell	38	38	0	--	--	--	--	--	--	--	--
Biomass/Solar[1]	25	25	25	27	27	27	27	27	27	27	27

[1]Taylor, Wolf Creek, Houston Landfill, Pecan Row, Azelea, Athens, Tallahasee

2013 Regional Generation Assumptions

GTC (Cont.)

Site	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Scherer 3	280	280	132	132	132	132	132	56	56	56	56
Wilson 5 CT	21	21	0	--	--	--	--	--	--	--	--
Yates	244	244	0	--	--	--	--	--	--	--	--
Franklin CC 3	--	--	--	620	620	620	620	620	620	620	620
Warthen CT	640	640	640	320	320	320	320	320	320	320	320
Hillabee CC	--	--	--	149	149	149	149	149	149	149	149
T.A. Smith I CC	--	--	--	620	620	620	620	620	620	620	620
T.A. Smith II CC	--	--	--	620	620	620	620	620	620	620	620
Wansley CC 6	--	--	--	--	561	561	561	561	561	561	561
Vogtle 3	--	--	--	--	330	330	330	330	330	330	330
Vogtle 4	--	--	--	--	--	330	330	330	330	330	330
Washington County	--	--	--	--	--	--	850	850	850	850	850

Southeastern Regional TRANSMISSION PLANNING

2013 Regional Generation Assumptions

MEAG

Site	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Vogtle 1	248	248	248	248	248	248	248	248	248	248	248
Vogtle 2	204	204	248	248	248	248	248	248	248	248	248
Vogtle 3	--	--	--	--	250	250	250	250	250	250	250
Vogtle 4	--	--	--	--	--	250	250	250	250	250	250

Dalton

Site	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Vogtle 3	--	--	--	--	16	16	16	16	16	16	16
Vogtle 4	--	--	--	--	--	16	16	16	16	16	16

2013 Regional Generation Assumptions

PowerSouth

Site	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
McIntosh CC 6	--	--	--	--	--	--	--	--	328	328	328

SMEPA:

Site	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Kemper IGCC	--	90	90	90	90	90	90	90	90	90	90

2013 Regional Generation Assumptions

Generation Assumptions for the 2012 Transmission Expansion Planning Process

(PTPs sourced at generation within the SERTP)

PTPs throughout the planning horizon

Starting in Year		Site	MW
2013	PTP	Dahlberg	176
2013		Franklin	535
2013		Harris 1	584
2013		Hillabee	700
2013		Lindsay Hill	500
2013		Scherer 3	235
2013		Scherer 4	850
2015		Scherer	60
2015		Vogtle	103
2016		Vogtle	103

PTPs ending within the planning horizon

Year		Site	MW
2013 – 2014	PTP	Scherer 3	42
2013 – 2014		Miller	164
2015**		Miller	103

**Point to Point is assumed for the stated year only

FRCC Coordination Update

2012 SERTP

❖FRCC Coordination Update

- Exchanged the latest transmission models for the ten year planning horizon
- Models will be incorporated into subsequent base cases

SIRPP Update

Five Economic Planning Studies

- SCE&G to Progress Energy Carolinas (200 MW)
  - Study Year: 2017
- Southern to Duke Energy Carolinas (50 MW)
  - Study Year: 2017
- SCRTP to FRCC (200 MW)
  - Study Year: 2017
- LG&E/KU to Southern (200 MW)
  - Study Year: 2013
- Southern to LG&E/KU (200 MW)
  - Study Year: 2013

2011 – 2012 SIRPP Update

SCE&G to PEC

Transmission System Impacts for the SIRPP

- Three (3) 230 kV TLs
- One (1) 230 / 115 kV Transformer
- Five (5) 115 kV TLs

Total Cost: $26,415,000

Southern to Duke

Transmission System Impacts for the SIRPP

- One (1) 230 / 115 kV Transformer
- Four (4) 115 kV TLs

Total Cost: $17,715,000

SCRTP to FRCC

Transmission System Impacts for the SIRPP

- One (1) 500 kV Static-Var Compensator
- Two (2) 230 kV TLs
- One (1) 230 / 115 kV Transformer
- Three (3) 115 kV TLs

Total Cost: $122,815,000

LG&E/KU to Southern

Transmission System Impacts for the SIRPP

- No constraints identified

Total Cost: $0

Southern to LG&E/KU

Transmission System Impacts for the SIRPP

- No constraints identified

Total Cost: $0

Five Economic Planning Studies

- EES to TVA & Southern (1500 MW)
  - Study Year: 2018
- EES to TVA & Southern (1500 MW) – Shoulder
  - Study Year: 2018
- PJM West to PJM & VACAR (3500 MW)
  - Study Year: 2018
- PJM West to PJM & VACAR (3500 MW) – Shoulder
  - Study Year: 2018
- TVA to LG&E/KU (500 MW)
  - Study Year: 2015

2011 – 2012 SIRPP Update

- More detailed information concerning these studies is available on the Southeast Inter-Regional Participation Process website at the following link:
  - http://www.southeastirpp.com/

2013 SERTP Process

Upcoming 2013 SERTP Process

- 1st "RPSG" Meeting
  - March 2013
  - Select Five Economic Planning Studies
- Preliminary Expansion Plan Meeting
  - June 2013
  - Preliminary 10 Year Expansion Plan
- 2nd "RPSG" Meeting
  - September 2013
  - Preliminary Economic Planning Study Results
- Annual Transmission Planning Summit
  - December 2013
  - Ten Year Expansion Plan / 2014 Input Assumptions
  - Final Economic Planning Study Results

Wrap Up