Entergy

Entergy Arkansas, Inc.
Entergy Mississippi, Inc.
Entergy Louisiana, LLC
Entergy New Orleans, Inc.
Entergy Gulf States Louisiana, L.L.C.
Entergy Texas, Inc.

Draft 2013 – 2017 Construction Plan Update 1

ICT – Entergy Summit
New Orleans, Louisiana

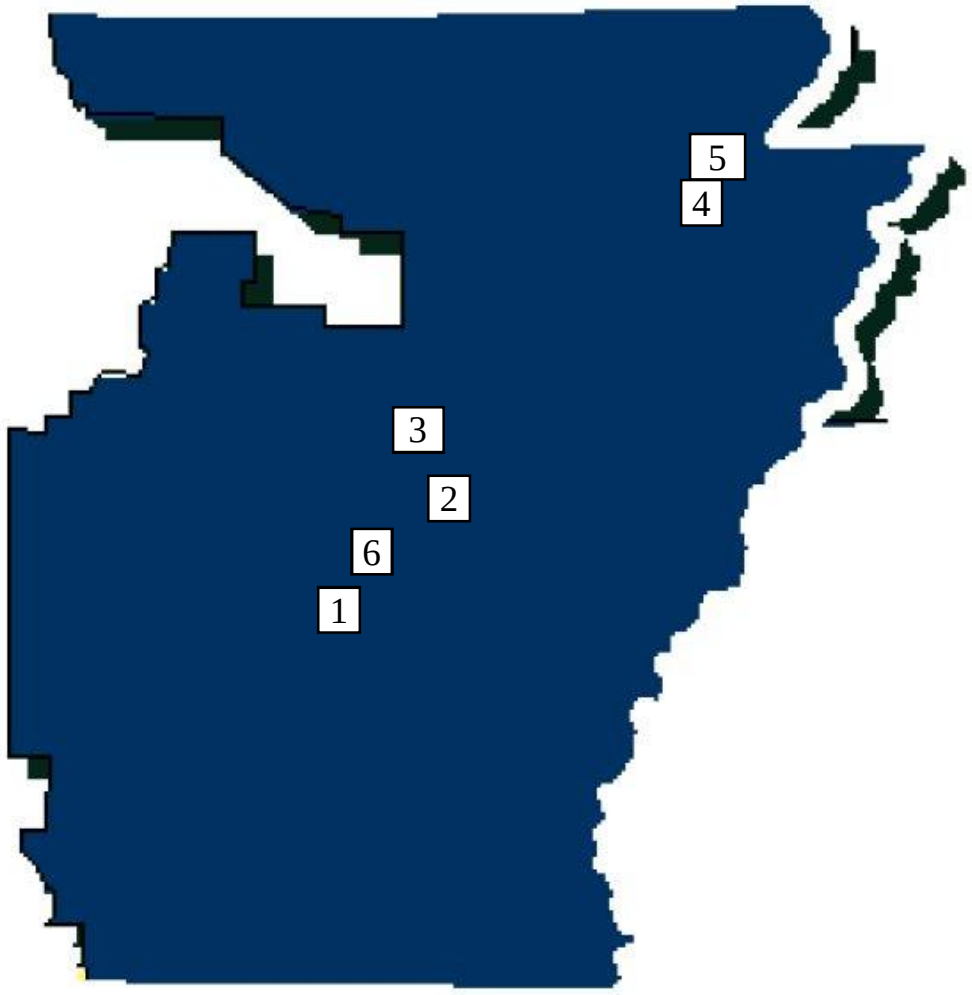
August 7, 2012

Entergy Arkansas, Inc. Transmission

2013 – 2017 Draft Construction Plan Update 1 Projects

2013-2017 EAI Draft Construction Plan Update 1 Projects
Projects Completed in 2012 to date

- **1) Poyen: Install Capacitor Bank (2012S)(Complete)**
- **2) Holland Bottoms: Add 500/161 kV Autotransformer (Complete)**
- **3) Construct new Holland Bottoms to Hamlet 161 kV Line (Complete)**
- **4) Upgrade Jonesboro to Herget 161 kV Line (Complete)**
- **5) Monet to Paragould 161 kV line upgrade (Complete)**
- **6) Mabelvale: Change 500-115 NLTC from 487.5kV tap to 512.5kV tap (Complete)**



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2013-2017 EAI Draft Construction Plan Update 1 Projects

1) Ebony : Install 5 Breaker Ring Bus and add capacitor bank (2012S)

2) Wilmar: Install Capacitor Bank (2012F)

3) Quitman to Bee Branch: Upgrade switch (2012W)

4) Benton North to Benton South: New Line (2012W)

5) Basin Springs: New Substation (2013S)

6) Stuttgart Ricusky: Expand Capacitor Bank (2013S)

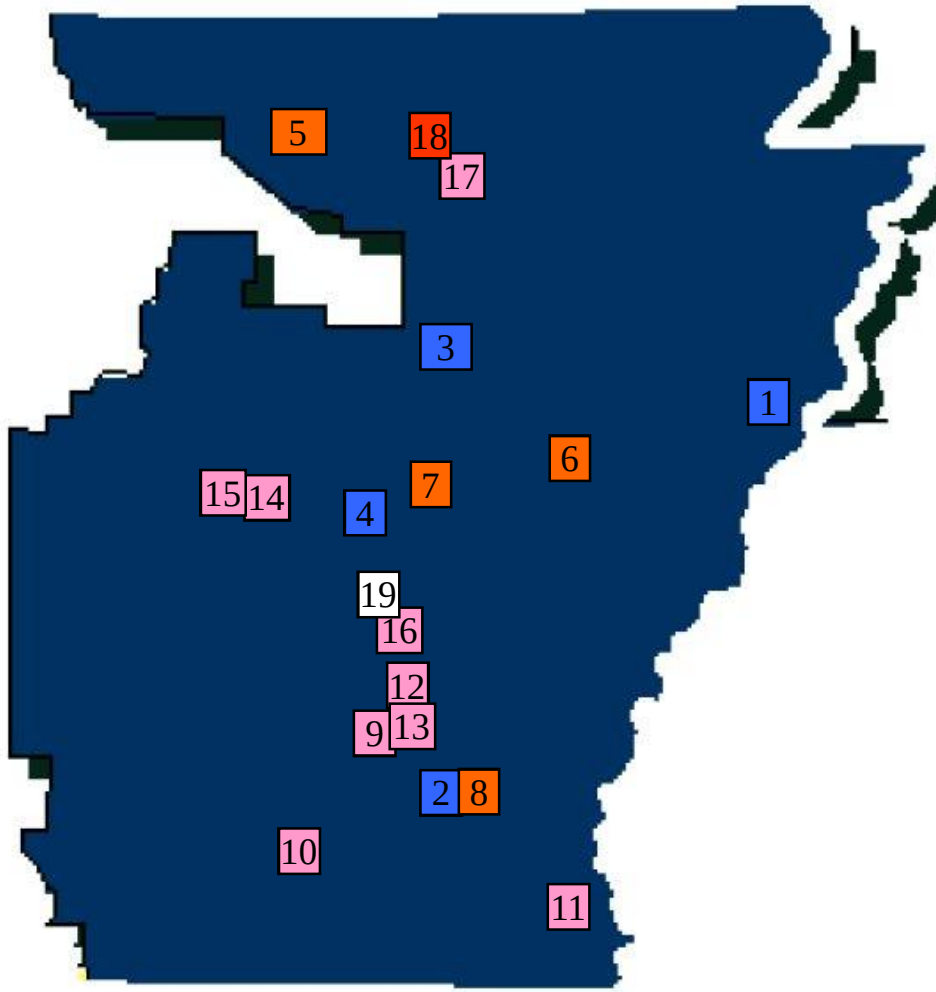
7) NLR Westgate to NLR Levy: Reconductor 115kV Line (2013S)

8) Monticello East: Add 21.6 Cap Bank (2013S)

9) Fordyce: Install Line Switch (2014S)

10) Camden McGuire to Camden North: New Line (2014S)

11) LV Bagby to Macon Lake: New Line (2014S)



12) Woodward to PB West to PB McCamant: Reconductor Lines (2014S)

13) Woodward to PB Watson Chapel: Rebuild to 230kV (2014S)

14) Arklahoma No. 2 to HS EHV East: Reconductor (2014S)

15) Arklahoma No. 1 to HS EHV West: Reconductor (2014S)

16) South Central AR: Congestion Improvement (2014S)

17) Calico Rock to Melbourne: Reconductor Line (2014S)

18) Norfork to Calico Rock: Reconductor Line (2016S)

19) White Bluff:Reconfigure 500kV and Construct 230kV Ring Bus (2015S)

2012 ISD | 2013 ISD | 2014 ISD | 2015 ISD | 2016 ISD | 2017 ISD | 2018 ISD

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2013-2017 EAI Draft Construction Plan Update 1 Projects

20) PB Voltage Support Phase 2: Woodward Construct 230kV Ring Bus and 230kV Line to White Bluff (2015S)

21) Monticello E to Reed: New Line (2015S)

22) HS Area: Upgrade Terminal Equipment (2015S)

23) Hot Springs Milton to Carpenter Dam: Construct New Line (2015S)

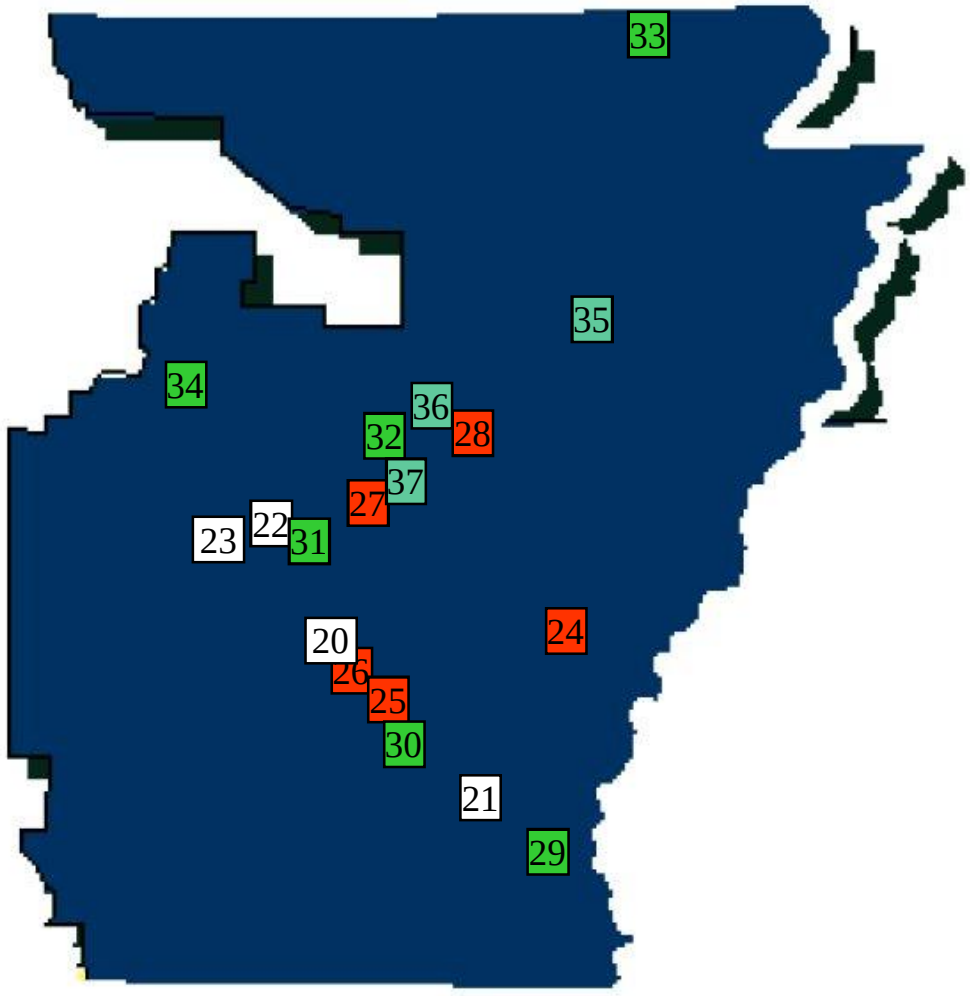
24) AECC Hydro Station#2 to Gillett: New 115kV Line (2016S)

25) PB McCamant to PB East: Reconductor 115kV Line (2016S)

26) Woodward: Reconfigure 115kV Bus (2016S)

27) Mabelvale: Replace 500kV Autos (2016S)

28) Ward: Add 21.6MVAR Cap Bank (2016S)



29) Macon Lake to Reed: New Line (2017S)

30) PB Watson Chapel to PB South: Rebuild to 230kV Bus (2017S)

31) Malvern South: Add 10.2MVAR Cap Bank (2017S)

32) Mayflower: Reconfigure 500kV Bus (2017S)

33) Doniphin to Datto: New 161kV Line (2017S)

34) Danville: Change Auto Taps (2017S)

35) ISES: Reconfigure 161kV Bus (2018S)

36) Holland Bottom to Jacksonville North: Reconductor 115kV Line (2018S)

37) LR Kanis to LR Markham: Reconductor 115kV Line (2018S)

2012 ISD | 2013 ISD | 2014 ISD | 2015 ISD | 2016 ISD | 2017 ISD | 2018 ISD

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2013-2017 EAI Draft Construction Plan Update 1 Projects

38) LR West to LR Palm:
Reconductor 115kV Line (2018S)

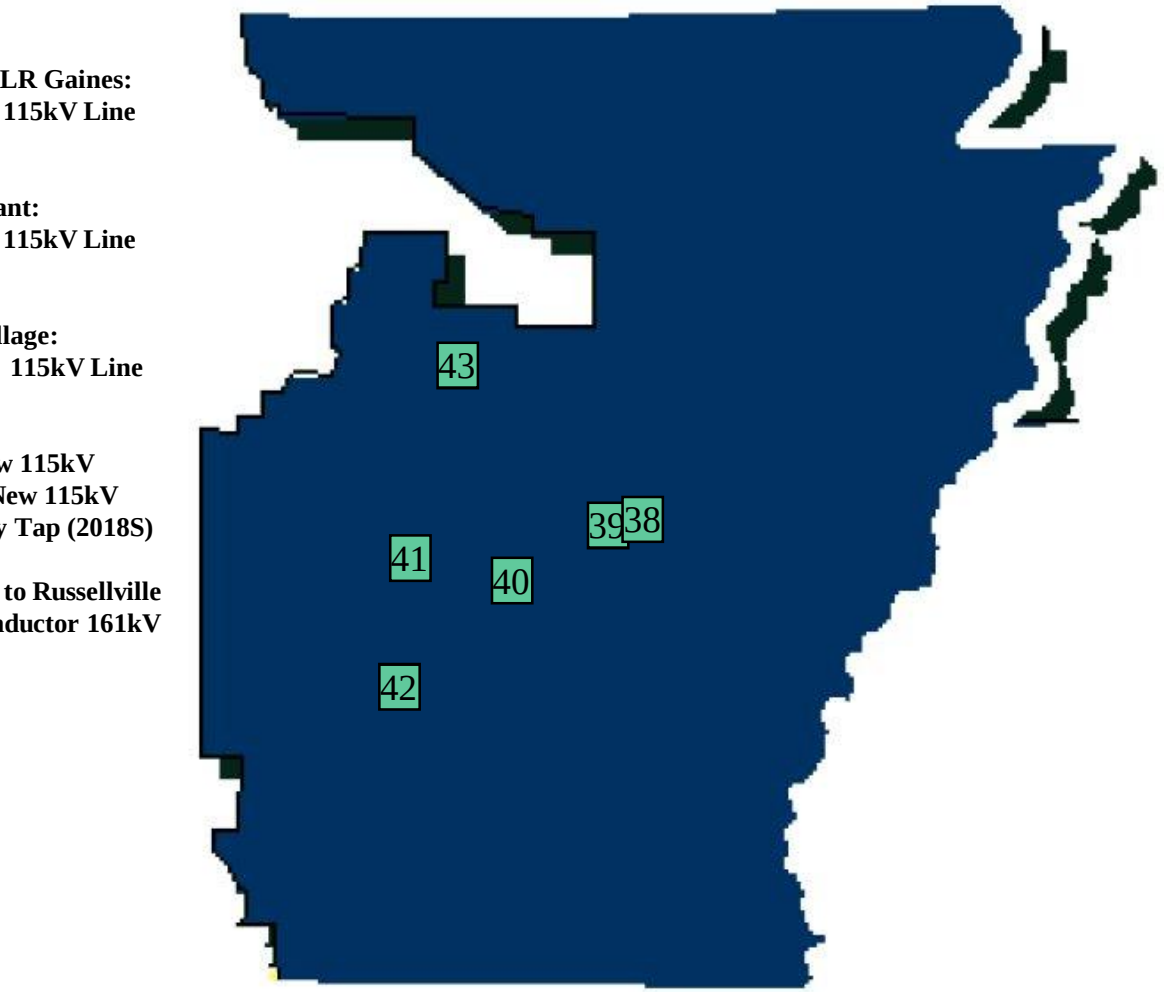
39) NLR Westgate to LR Gaines:
Reconductor 115kV Line (2018S)

40) Mabelvale to Bryant:
Reconductor 115kV Line (2018S)

41) Cheetah to HS Village:
Reconductor 115kV Line (2018S)

42) Gum Springs: New 115kV Station and New 115kV Line to Amity Tap (2018S)

43) : Russellville East to Russellville North: Reconductor 161kV Line (2018S)



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Ebony: Install a 6 Breaker Ring Bus

10-EAI-018-CP, 11-EAI-006-CP

Scenario:

- The loss of West Memphis EHV to West Memphis Polk causes low voltages at WM Polk and WM Lehi. To prevent this, Ebony SS will be converted to a breaker station.

- Ebony SS ties together Kuhn Road, WM Gateway, Marked Tree, WM Lehi and WM Polk. The current configuration has Marked Tree to WM Lehi bypassing the switching station.

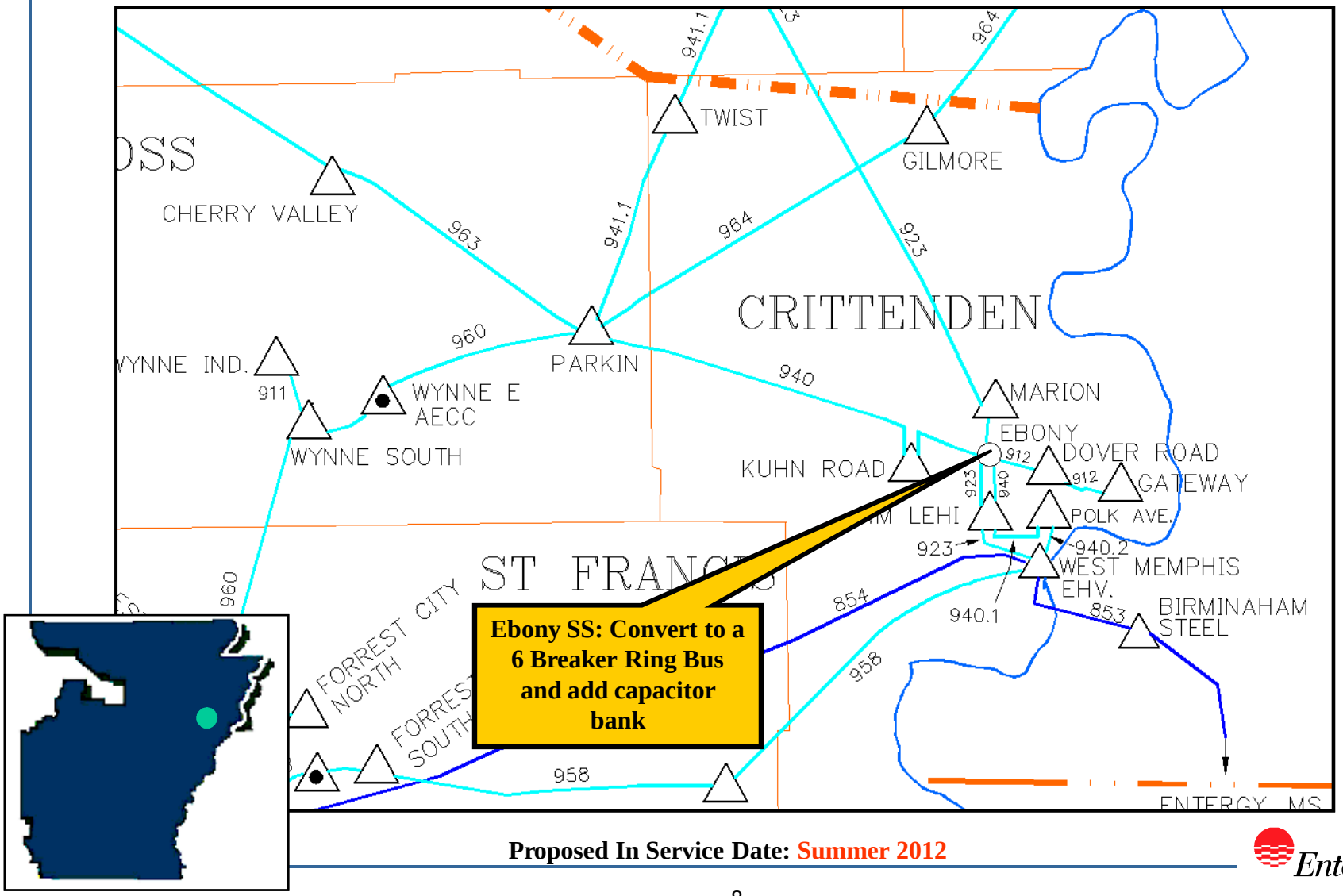
Proposed Solution:

- Convert Ebony SS to a 6 breaker station.
- Install 36 MVAR Capacitor Bank.

Proposed In Service Date: Summer 2012

Ebony: Install a 6 Breaker Ring Bus

10-EAI-018-CP, 11-EAI-006-CP



Proposed In Service Date: Summer 2012

Wilmar:
Install New 21.6MVAR Capacitor Bank

11-EAI-010-CP

Scenario:

- Wilmar is a substation located in southeastern Arkansas, northeast of El Dorado. This is a long radial line fed from El Dorado EHV and Monticello East which is approximately 61 miles. Loss of any of the line segment along this line causes voltages to dip below 90%.

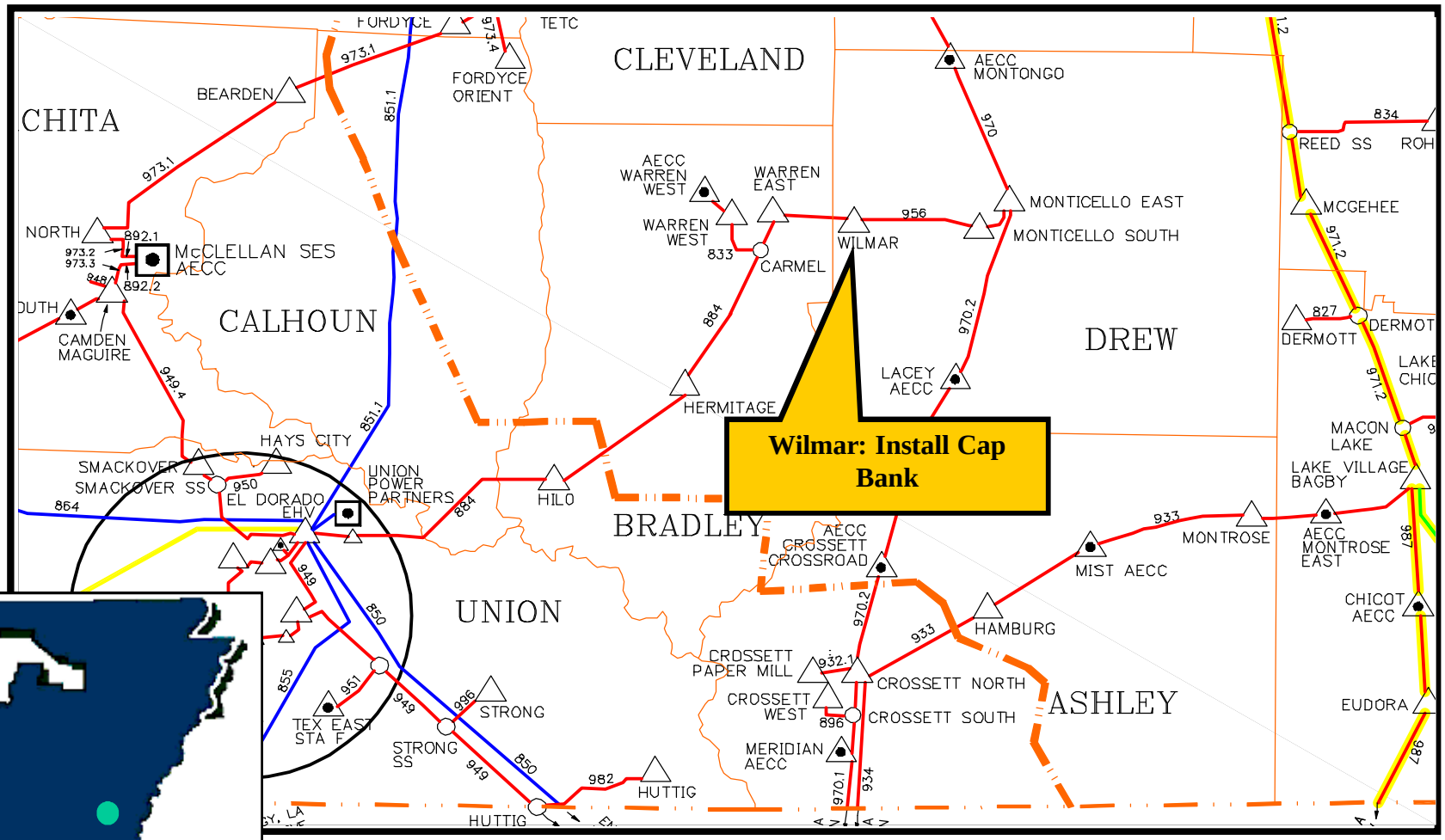
Proposed Solution:

- Install a 21.6 MVAR capacitor bank to the operating bus at the Wilmar substation.

Proposed In Service Date: Fall 2012

Wilmar:
Install New 21.6MVAR Capacitor Bank

11-EAI-010-CP



Proposed In Service Date: Fall 2012

Quitman to Bee Branch: Upgrade switch

12-EAI-028-CP

Scenario:

- During periods of low hydro conditions in the Bull Shoals/Norfork area the loadings on the Quitman to Bee Branch 161 kV line approach the thermal rating of the line based on a 600 A switch limit

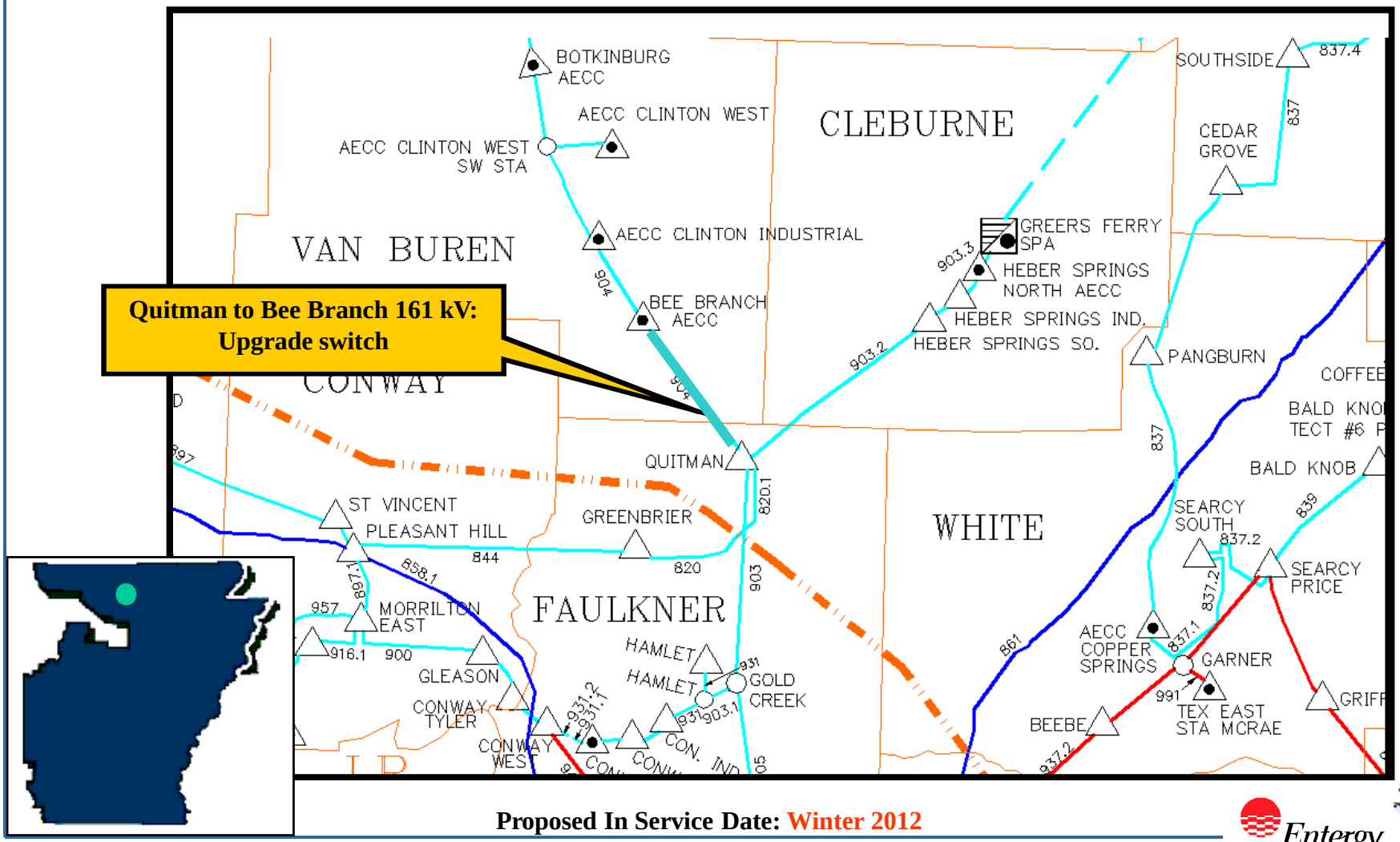
Proposed Solution:

- Upgrade 600 A switch at Quitman with 2000 A switch to increase the thermal rating of the Quitman to Bee Branch line segment.

Proposed In Service Date: Winter 2012

Quitman to Bee Branch 161 kV line: Upgrade switch

12-EAI-028-CP



Proposed In Service Date: Winter 2012

Benton North to Benton South: New Line

10-EAI-020-CP

Scenario:

- The loss of Mabelvale to Bryant 115kV Transmission Line segment results in an overload of the Hot Springs EHV to Butterfield line section and low voltages at Benton South, Bryant and Alcoa Road substations.

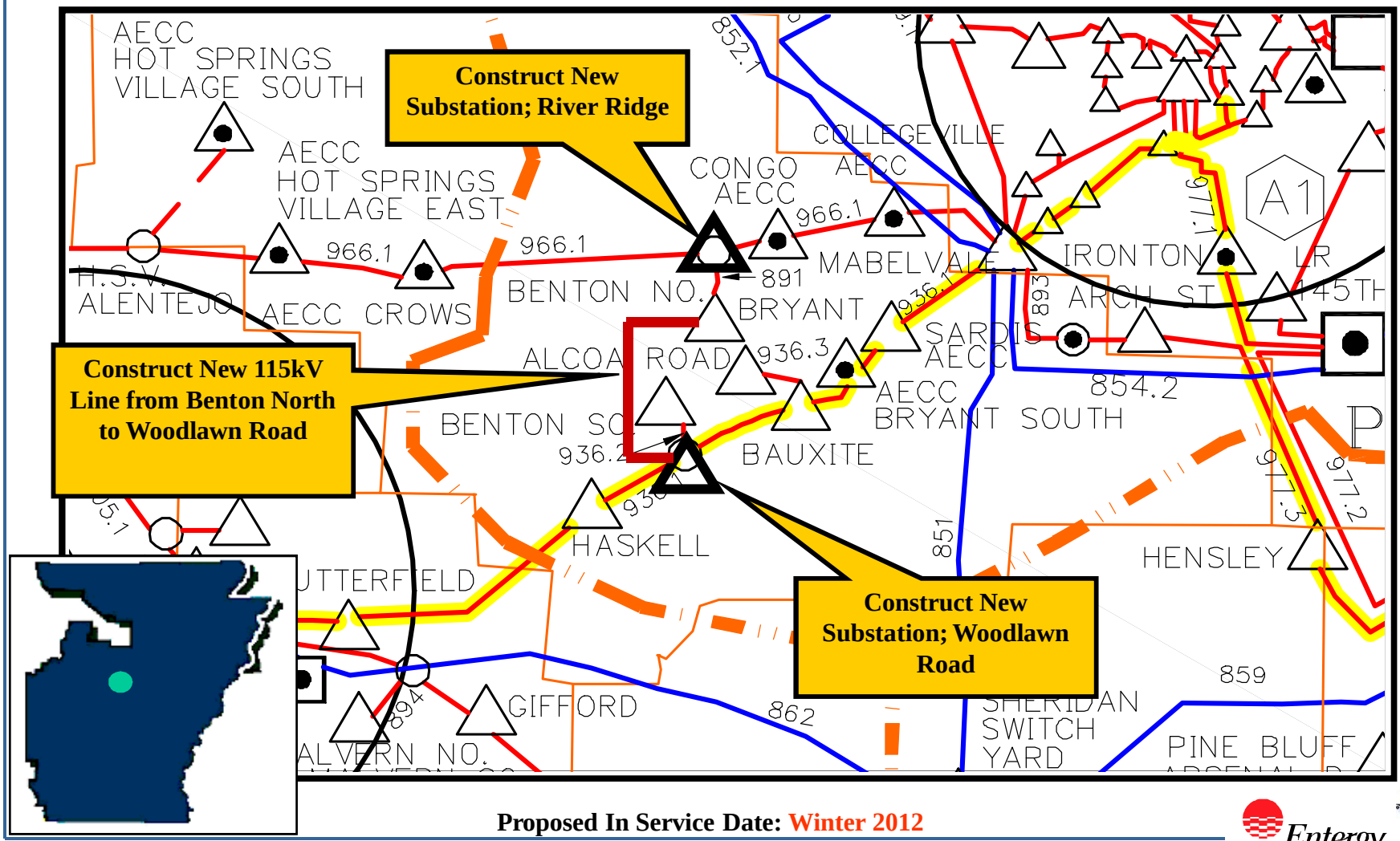
Proposed Solution:

- Abandon existing Benton South switching station. Construct a new 4 breaker station named Woodlawn Road to be located south of Benton South switching station. The breakers for the ring at Woodlawn Road substation will be Woodlawn Road to Haskel, Woodlawn Road to Bauxite, Woodlawn Road to Benton South, and Woodlawn Road to Benton North.
- Construct a new transmission line from Woodlawn Road to Benton North. The new line is about 9 miles and needs to be rated to at least 176 MVA.
- Abandon Benton North Tap. Construct a new 4 breaker station named River Ridge about 3 miles north of Benton North Substation. The breakers for the ring will be River Ridge to Benton North, River Ridge to Congo AECC, River Ridge to Avilla, and River Ridge to AECC Crows.

Proposed In Service Date: Winter 2012

Benton North to Benton South: New Line

10-EAI-020-CP



Proposed In Service Date: Winter 2012

Basin Springs: Construct New Substation

11-EAI-009-CP

Scenario:

- A Facility Study was completed for PID 223 and the customer has signed a Large Generator Interconnection Agreement for the interconnection.

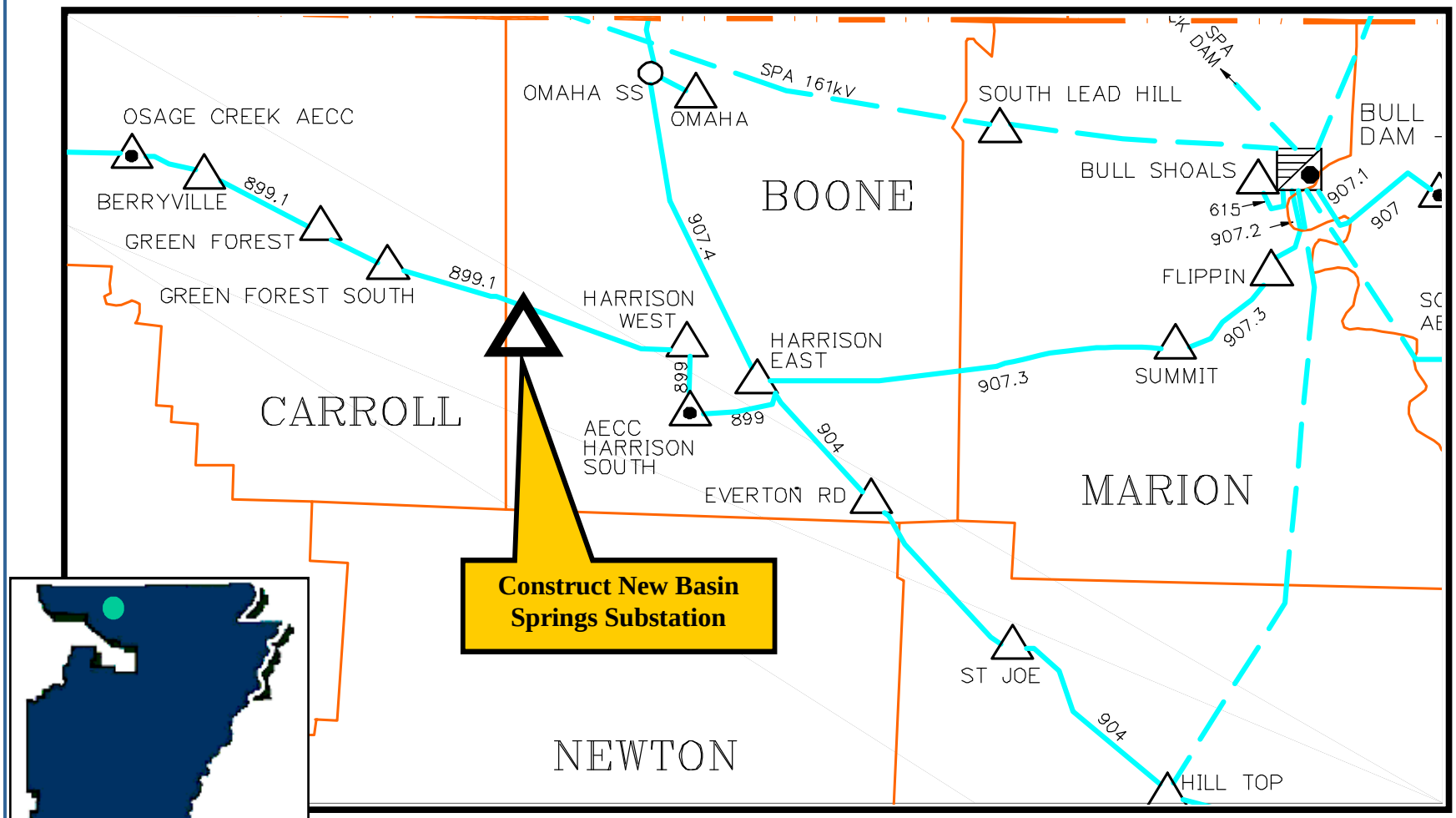
Proposed Solution:

- Basin Springs Switching Station will be constructed to provide the point of interconnection.
- Remote relay work will be completed at Harrison East Substation.

Proposed In Service Date: Summer 2013 (On Hold)

Basin Springs: Construct New Substation

11-EAI-009-CP



Proposed In Service Date: Summer 2013 (On Hold)

Stuttgart Ricuskey: Expand Capacitor Bank

11-EAI-012-CP

Scenario:

- Loss of the Stuttgart 230-115 kV auto results in area 115 kV low voltages

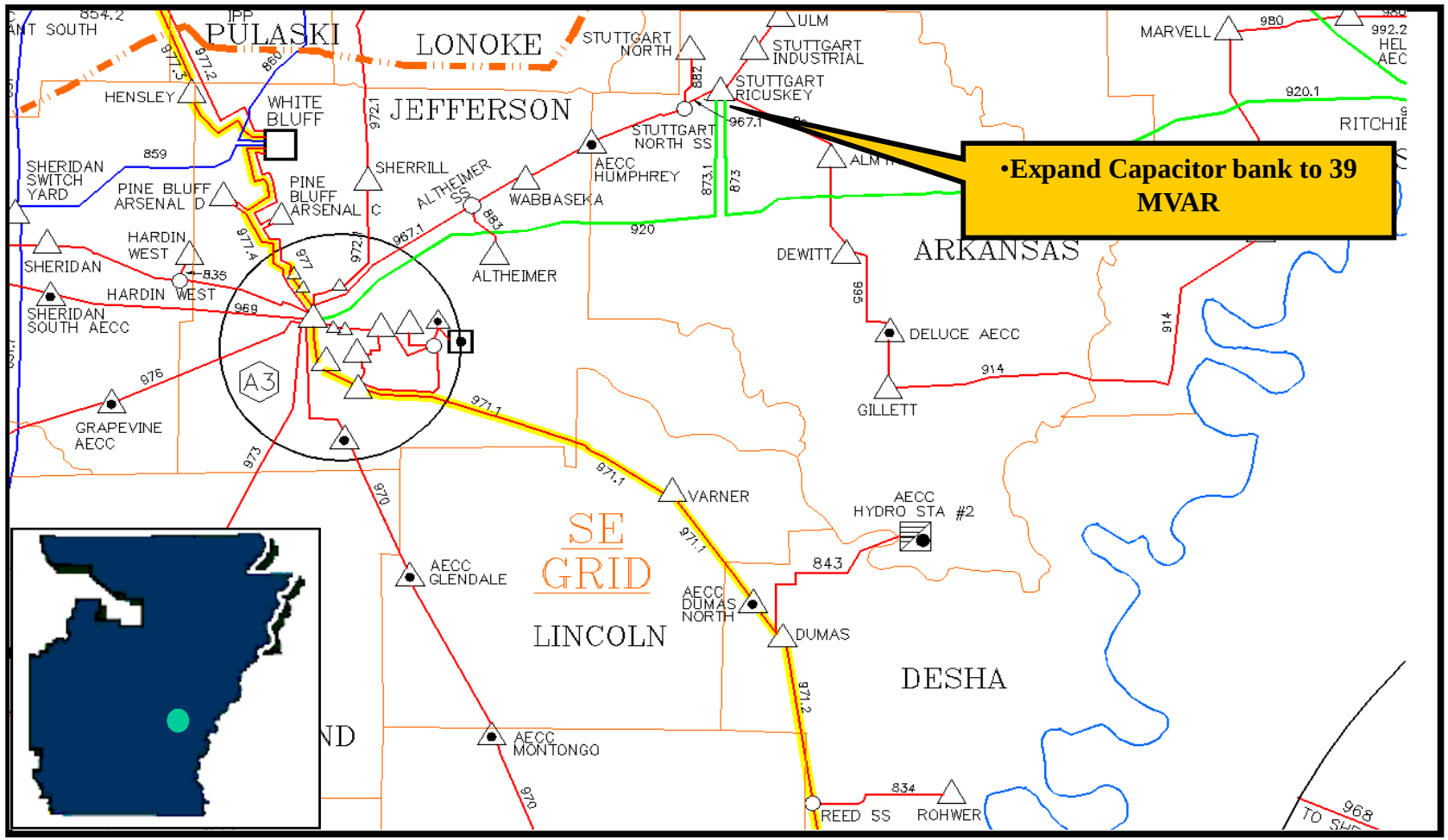
Proposed Solution:

- Expand capacitor bank to 39 MVA

Proposed In Service Date: Summer 2013

Stuttgart Ricuskey: Expand 115 kV Capacitor bank

11-EAI-012-CP



Proposed In Service Date: Summer 2013

NLR Westgate to NLR Levy: Upgrade Line

11-EAI-026-CP

Scenario:

The contingency loss of the LR South to LR Rock Creek 115 kV line results in the NLR Westgate to NLR Levy 115 kV line to exceed its thermal rating.

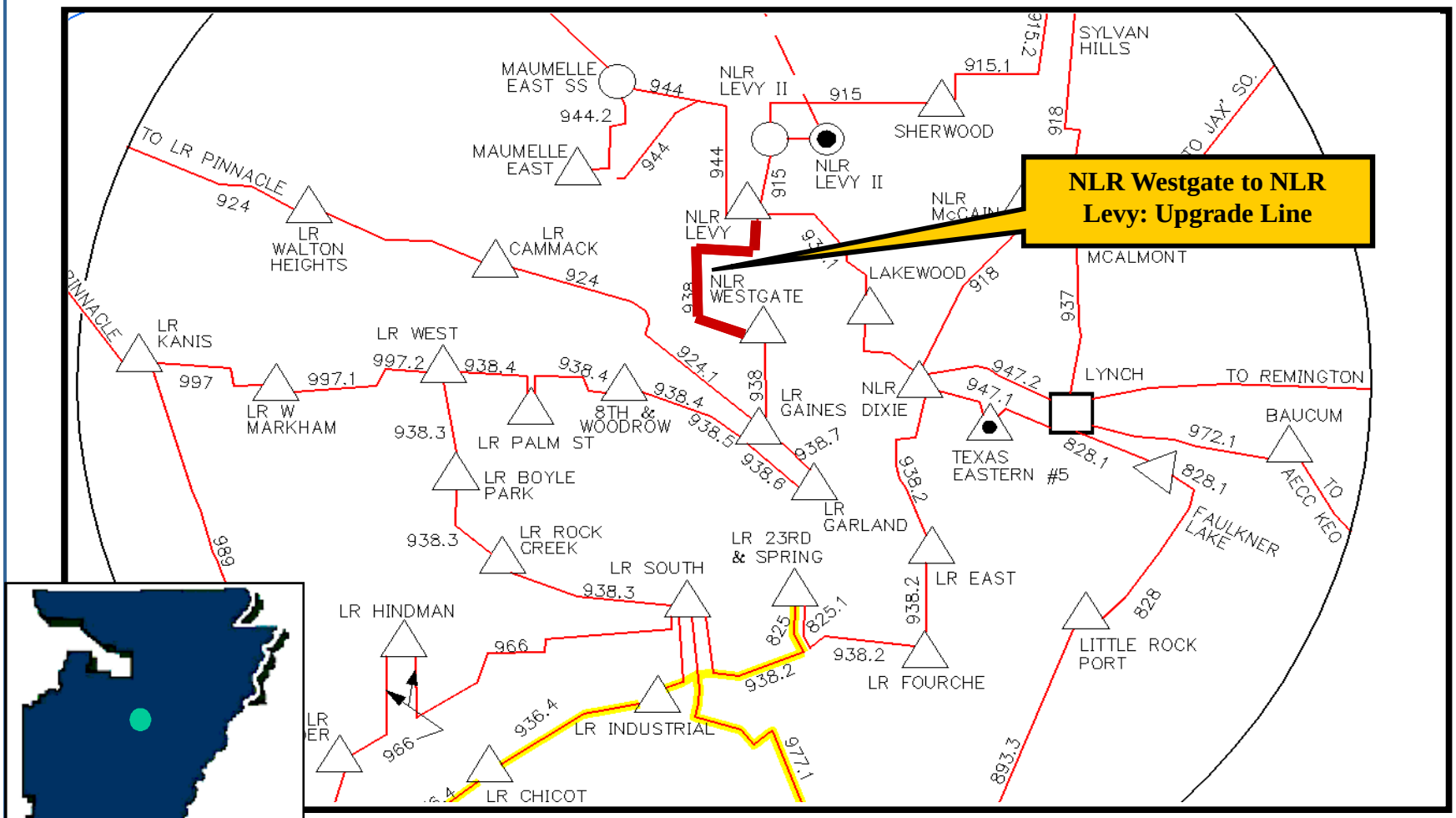
Proposed Solution:

- Reconductor the 3.96 mile line from NLR Westgate to NLR Levy with a minimum rating of 394MVA.

Proposed In Service Date: Summer 2013

NLR Westgate to NLR Levy: Upgrade Line

11-EAI-026-CP



Proposed In Service Date: Summer 2013

Monticello East 115kV: Add 21.6MVAR Capacitor Bank

12-EAI-036-CP

Scenario:

- Loss of the Woodward to Pinebergen 115 kV line results in low voltages between Pinebergen and Monticello East.

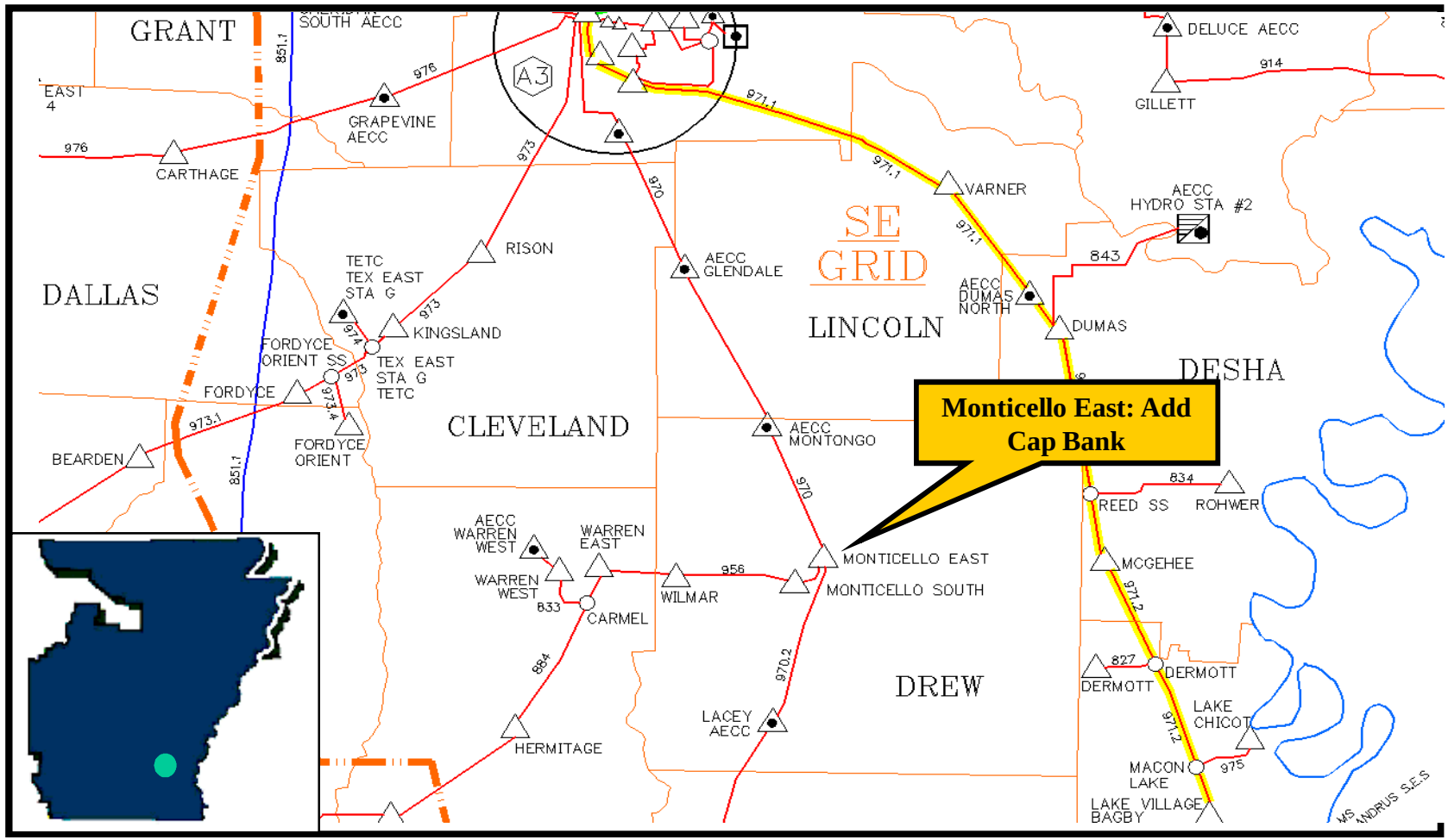
Proposed Solution:

- Relocate the existing Monticello East 115kV, 20MVAR Capacitor Bank from the line terminal to the transfer bus and add a new 21.6MVAR Capacitor Bank.

Proposed In Service Date: Summer 2013

Monticello East 115kV: Add 21.6MVAR Capacitor Bank

12-EAI-036-CP



Proposed In Service Date: Summer 2013

Fordyce Capacitor Bank: Install Line Switch

11-EAI-003-CP

Scenario:

- In 2014, the loss of the 115 kV line from Fordyce to Camden North line causes a low voltage condition at Fordyce. There is a capacitor bank at Fordyce and it is installed on the line from Fordyce to Camden North on the Bearden line section. The line section from Fordyce to Bearden can be sectionalized but there are no switches such that the capacitor bank can be re-energized while the line section is out of service.

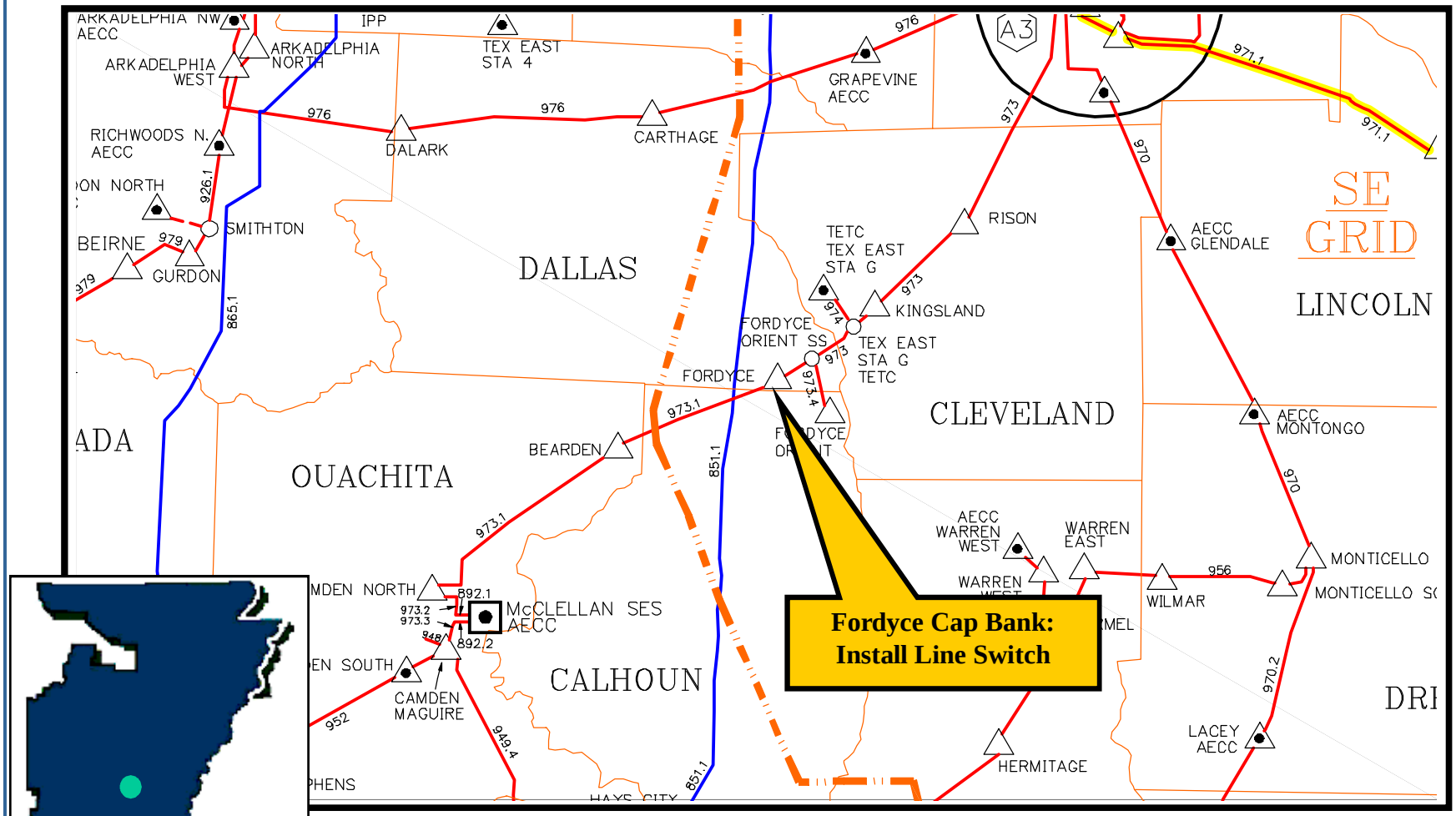
Proposed Solution:

- Install a 1200 amp line switch on the Fordyce to Bearden line section South of the capacitor bank at Fordyce.

Proposed In Service Date: Summer 2014

Fordyce Capacitor Bank: Install Line Switch

11-EAI-003-CP



Proposed In Service Date: Summer 2014

Camden MaGuire to Camden North: New 115kV Line

12-EAI-005-CP

Scenario:

- Loss of the breaker-to-breaker segment from Camden North to McClellan leaves the very long line single-ended from Woodward. Loss of the breaker-to-breaker segment from McClellan to Camden Maguire also leaves the very long line single-ended, and if the McClellan plant is not generating, there is insufficient voltage support for the area.

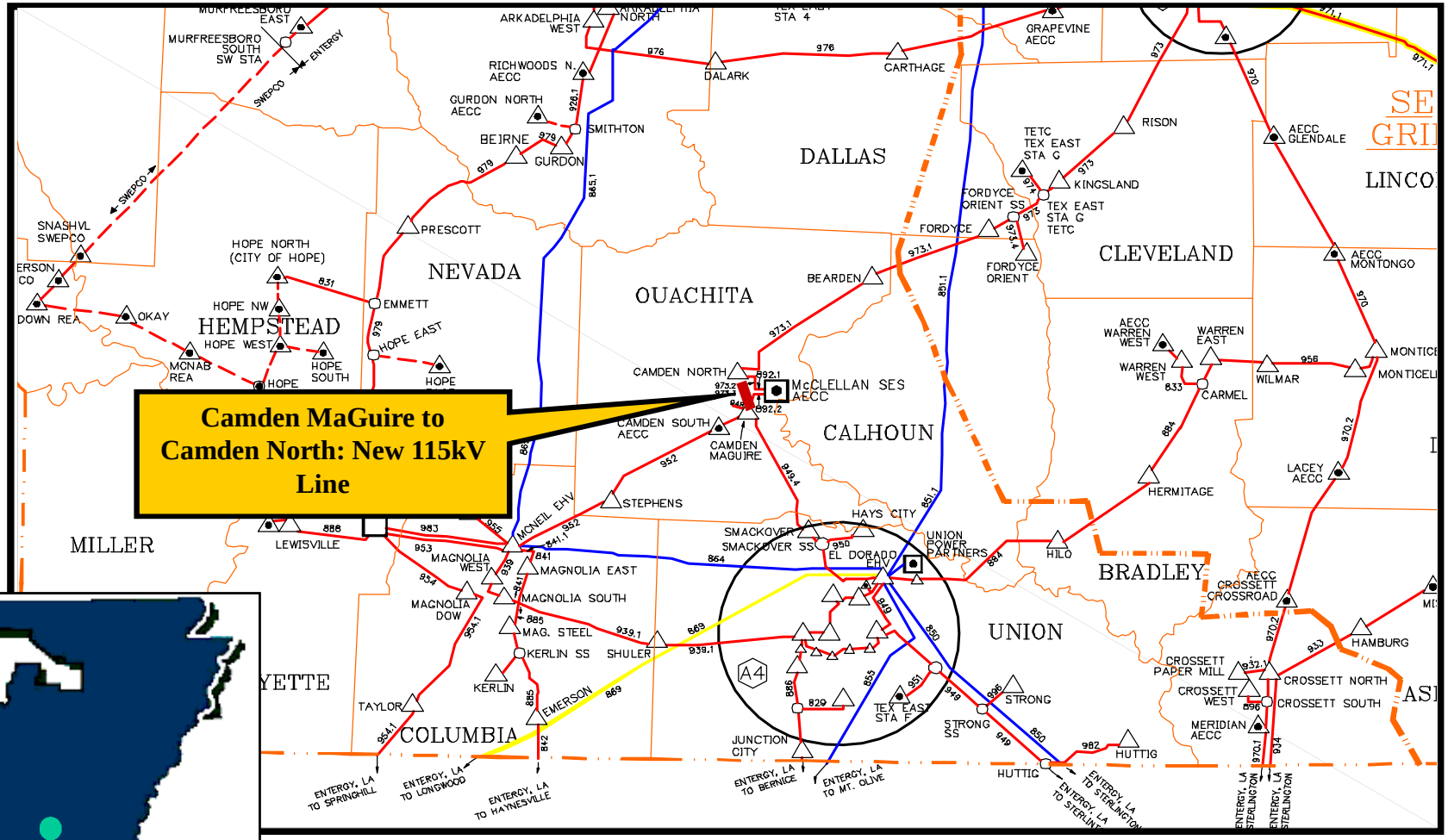
Proposed Solution:

- Using 1200 amp breakers, switches, and other substation equipment, rebuild the existing Camden North substation to accommodate three transmission lines. Two of the three transmission lines will be the existing two lines at the substations (line to McClellan and line to Fordyce). The third line will be a new 4 mile 115 kV line constructed from Camden North to Camden Maguire.

Proposed In Service Date: Summer 2014

Camden MaGuire to Camden North: New 115kV Line

12-EAI-005-CP



Proposed In Service Date: Summer 2014

LV Bagby to Macon Lake: New 230kV Line Operating at 115kV

12-EAI-008-CP

Scenario:

The following contingencies result in the 115kV transmission line from Lake Village Bagby to Macon Lake to exceed its thermal rating:

- Loss of Dumas to L&D #2 115kV
- Loss of Sterlington to Eldorado EHV 500kV

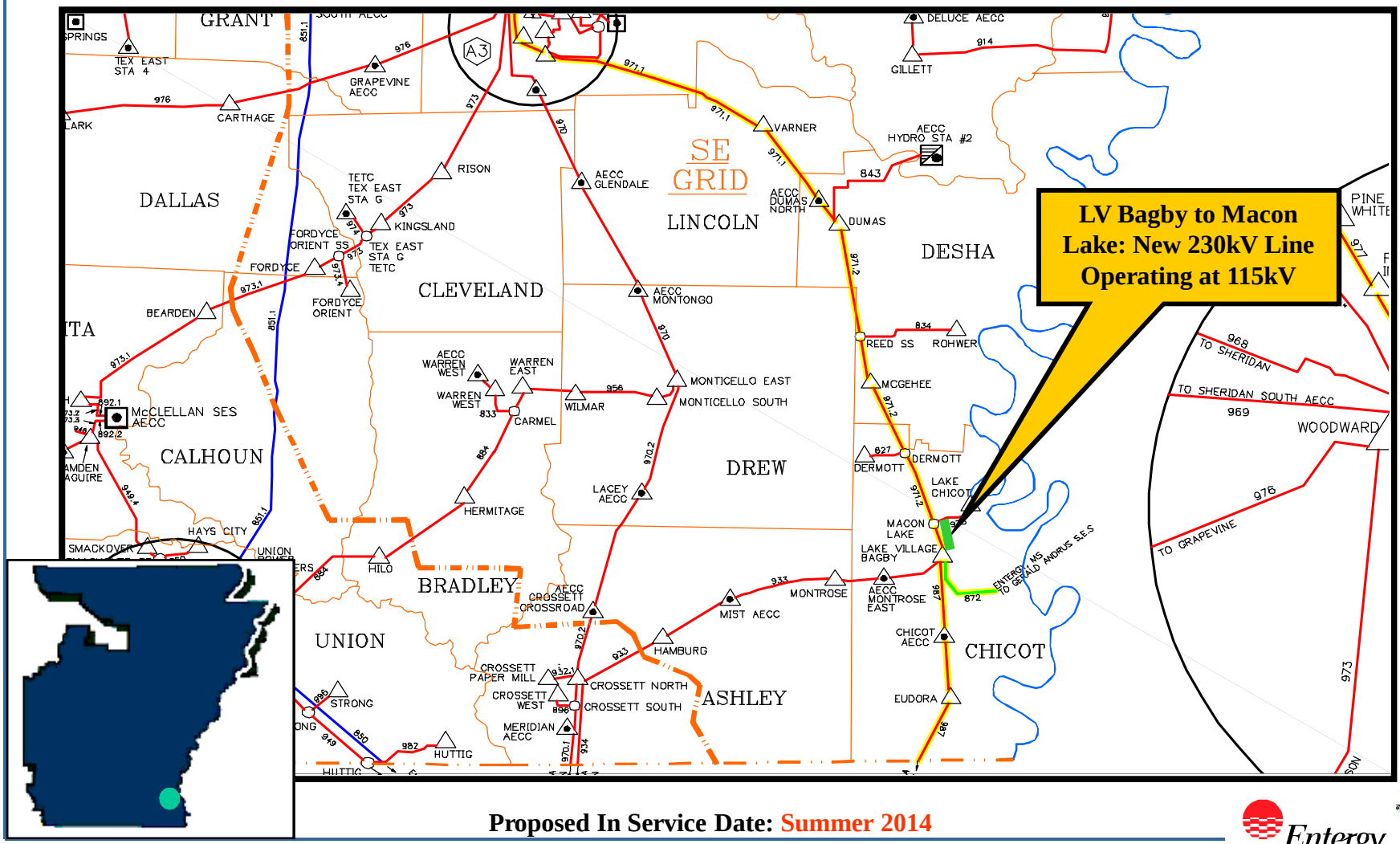
Proposed Solution:

- Construct new 4.07 mile 230kV Line operating at 115kV from Lake Village Bagby to Macon Lake. Lake Chicot load will be temporarily transferred to the new line.

Proposed In Service Date: Summer 2014

Lake Village Bagby to Macon Lake: New 230kV Line Operating at 115kV

12-EAI-008-CP



Proposed In Service Date: Summer 2014

Woodward to Pine Bluff West to McCamant: Upgrade Lines

12-EAI-002-CP

Scenario:

The following contingency results in the Woodward to Pine Bluff West and Pine Bluff West to McCamant 115kV lines to exceed its thermal rating

- Loss of Woodward to Pine Bluff Watson Chapel 115kV

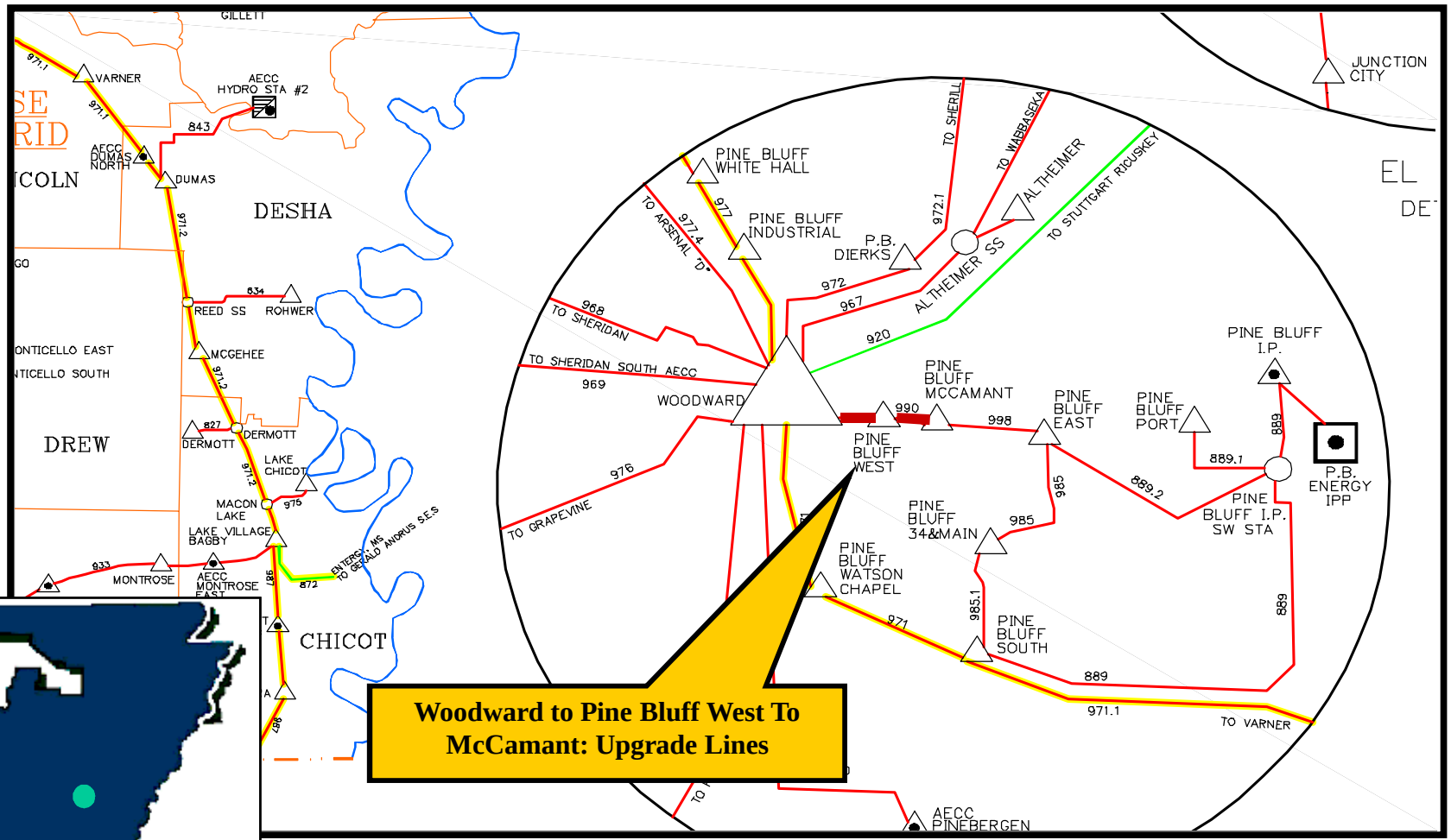
Proposed Solution:

- Re-conductor Woodward to Pine Bluff West (1.0 mi) and Pine Bluff West to McCamant (1.7 mi) 115kV Transmission lines with a minimum rating of 319 MVA.

Proposed In Service Date: Summer 2014

Woodward to Pine Bluff West to McCamant: Upgrade Lines

12-EAI-002-CP



•**Proposed In Service Date:** Summer 2014

Woodward to Pine Bluff Watson Chapel: Rebuild Line

12-EAI-023-CP

Scenario:

The following contingencies result in the Woodward to Pine Bluff Watson Chapel 115 kV line to exceed its thermal rating:

- Woodward to Pine Bluff West
- Pine Bluff West to McCamant

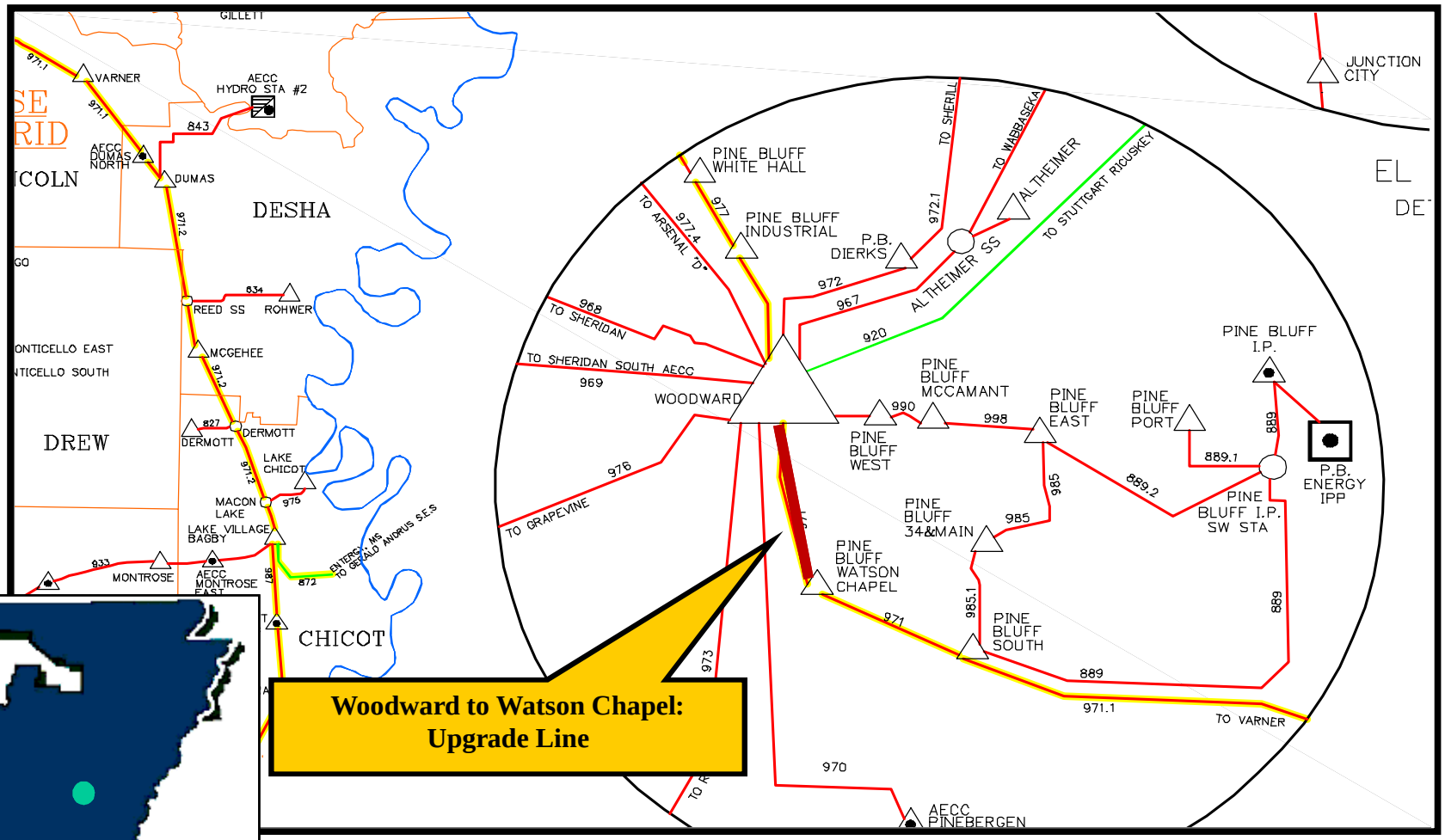
Proposed Solution:

- Rebuild 2.63 mile line Woodward to PB Watson Chapel to 230kV specifications operating at 115kV with a minimum rating of 390MVA.

Proposed In Service Date: Summer 2014

Woodward to Pine Bluff Watson Chapel: Rebuild Line

12-EAI-023-CP



Proposed In Service Date: Summer 2014

Arklahoma No. 2 to HS EHV East : Reconductor Line

12-EAI-024-CP

Scenario:

The following contingency results in the Arklahoma No. 2 to HS EHV East 115 kV line to exceed its thermal rating:

- Arklahoma No. 1 to HS EHV West

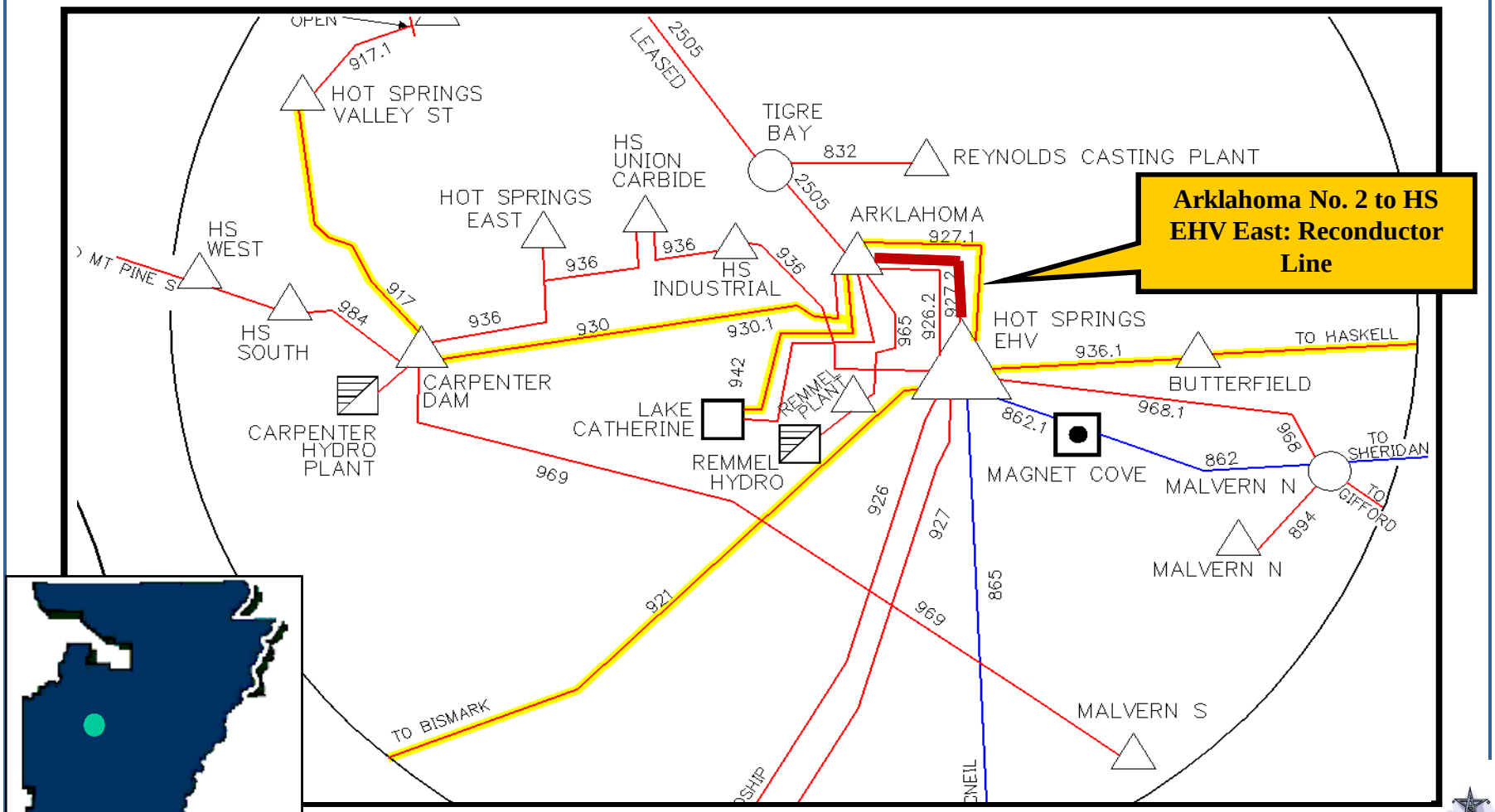
Proposed Solution:

- Upgrade 1.32 mile 115kV line Arklahoma No. 2 to HS EHV East to 1272 ACSS 390 MVA.
- Upgrade Equipment to 3000A.

Proposed In Service Date: Summer 2014

Arklahoma No. 2 to HS EHV East : Reconductor Line

12-EAI-023-CP



Proposed In Service Date: Summer 2014

Arklahoma No. 1 to HS EHV West : Reconductor Line

12-EAI-025-CP

Scenario:

The following contingency results in the Arklahoma No. 1 to HS EHV West 115 kV line to exceed its thermal rating:

- Arklahoma No. 2 to HS EHV East

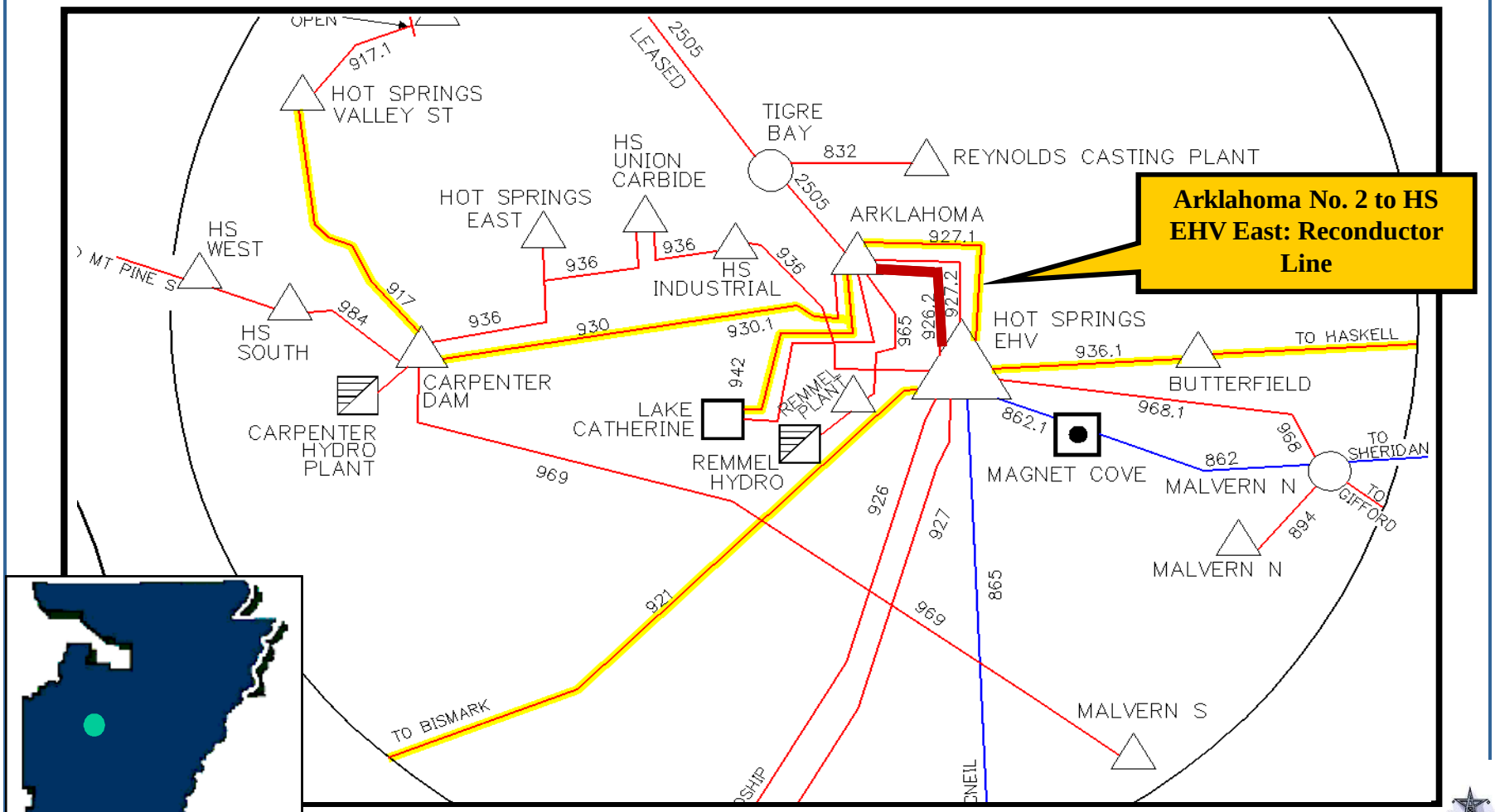
Proposed Solution:

- Upgrade 1.32 mile 115kV line Arklahoma No. 1 to HS EHV West to 1272 ACSS 390 MVA.
- Upgrade Equipment to 3000A.

Proposed In Service Date: Summer 2014

Arklahoma No. 1 to HS EHV West : Reconductor Line

12-EAI-025-CP



Proposed In Service Date: Summer 2014

South Central Arkansas Congestion Improvement

11-EAI-004 1-4-CP

Scenario:

Limitations at multiple EHV substations have resulted in TLR's in the South Central Arkansas are to occur. The limitations are associated with the thermal limits of the following flowgates

- Sheridan - El Dorado 500 kV FTLO Etta - McNeil
- White Bluff - Sheridan FTLO Mabelvale - Sheridan
- Mabelvale - Sheridan FTLO White Bluff - Sheridan
- Sheridan - Mabelvale FTLO White Bluff – Keo

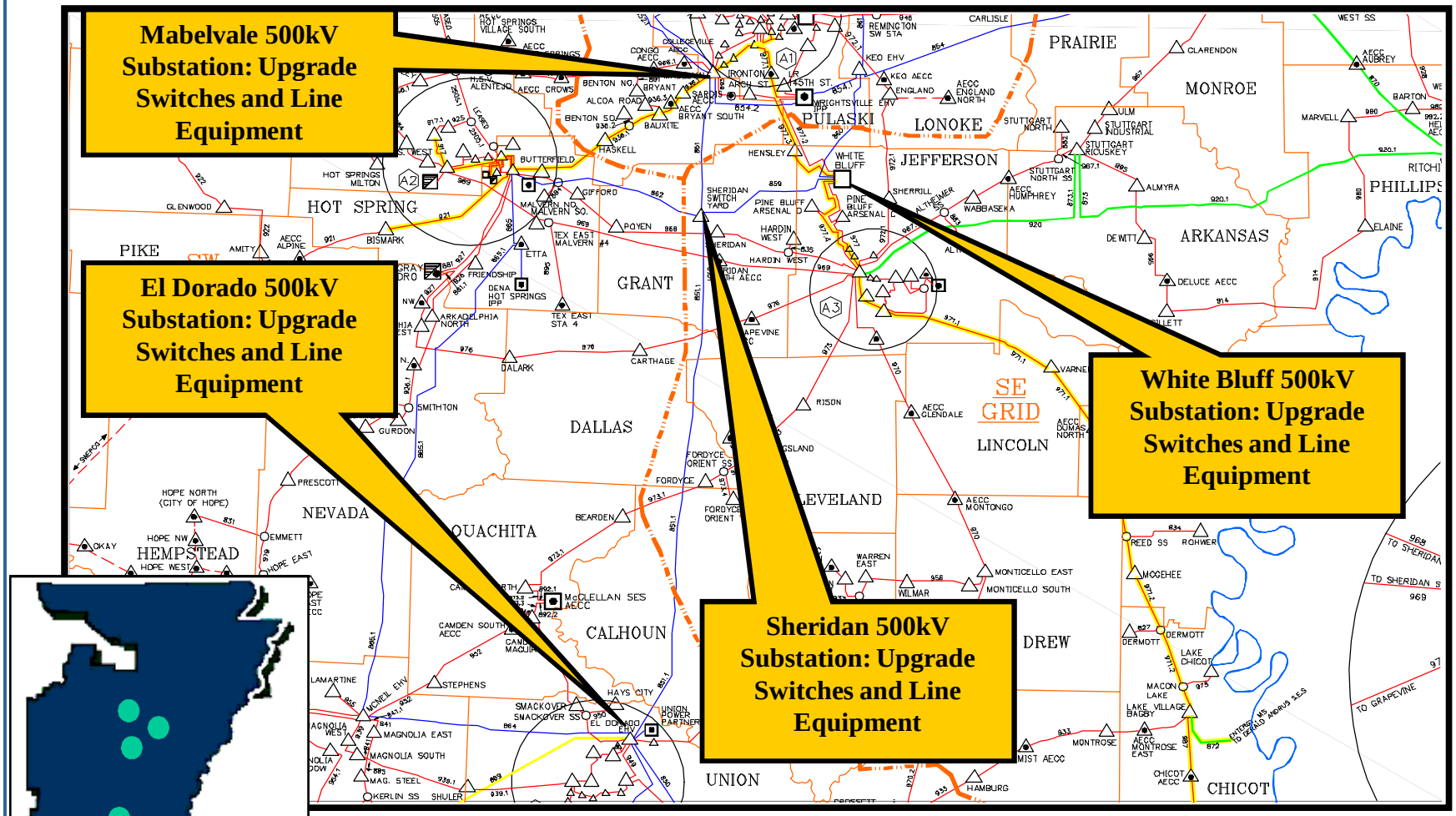
Proposed Solution:

- Mabelvale 500 kV Substation: Replace 3 breakers, 13 switches, and 2 line traps
- Sheridan 500 kV Substation: Replace 11 switches and 6 line traps
- White Bluff: Replace 5 switches and 2 line traps
- Eldorado: Replace 1 switch and 2 line traps

Proposed In Service Date: Fall 2014

South Central Arkansas Congestion Improvement

11-EAI-004 1-4-CP



Proposed In Service Date: Fall 2014

Calico Rock to Melbourne: Reconductor 161kV Line

12-EAI-001-CP

Scenario:

The following contingencies result in the Calico Rock to Melbourne 161kV line segment to exceed its thermal rating:

- Loss of ANO to Fort Smith 500kV
- Loss of ISES to Dell 500kV
- Newport to Jonesboro 161kV

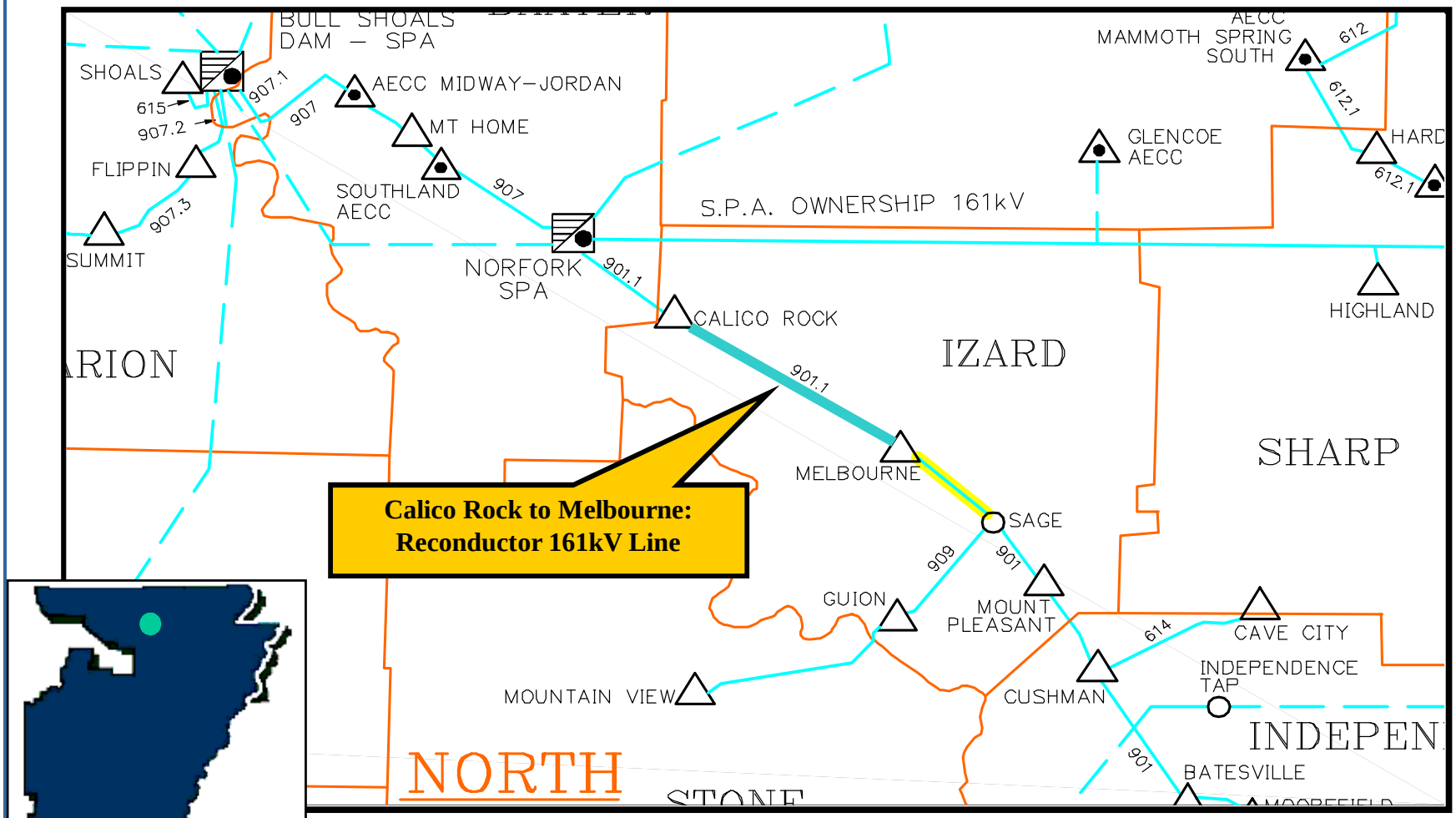
Proposed Solution:

- Re-conductor the 16.63 miles Calico Rock to Melbourne 161kV Transmission line segment to a minimum of 1200 Amps.

Proposed In Service Date: Winter 2014

Calico Rock to Melbourne: Reconductor 161kV Line

12-EAI-001-CP



Proposed In Service Date: Winter 2014

Norfork to Calico Rock: Reconductor 161kV Line

11-EAI-025-CP

Scenario:

The following contingencies result in the Norfork to Calico Rock 161kV line segment to exceed its thermal rating:

- Loss of ANO to Fort Smith 500kV
- Loss of ISES to Dell 500kV
- Newport to Jonesboro 161kV
- Moorefield to ISES 161kV

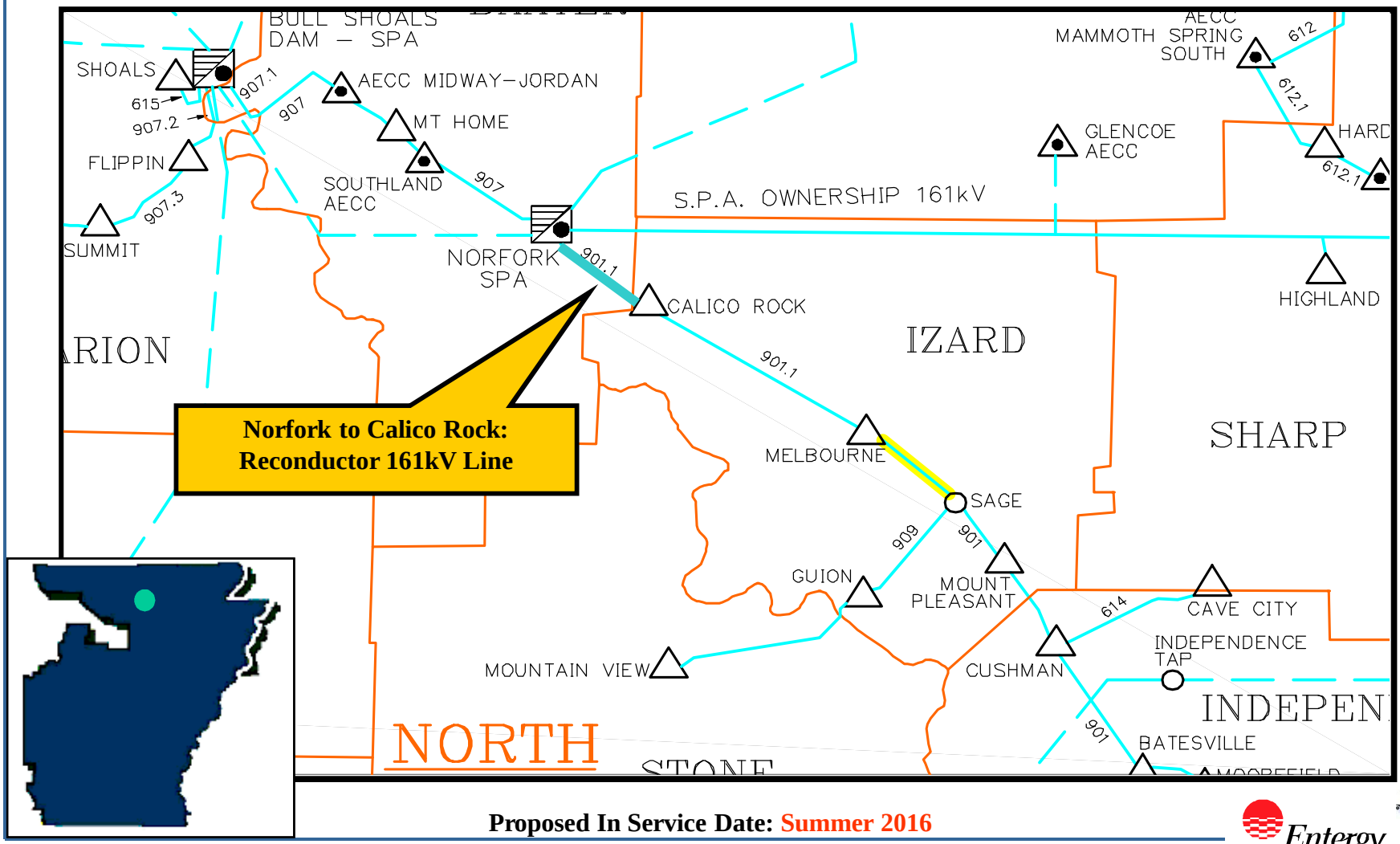
Proposed Solution:

- Re-conductor the 8.2 miles Norfork to Calico Rock 161kV Transmission line segment to a minimum of 1200 Amps.

Proposed In Service Date: Summer 2016

Norfork to Calico Rock: Reconductor 161kV Line

12-EAI-001-CP



Proposed In Service Date: Summer 2016

White Bluff: Reconfigure 500 kV Station

11-EAI-017-CP

Scenario:

The following contingencies result in low voltages and thermal overloads in the Pine Bluff area:

- Woodward to Pine Bluff West
- Skygen generation outage

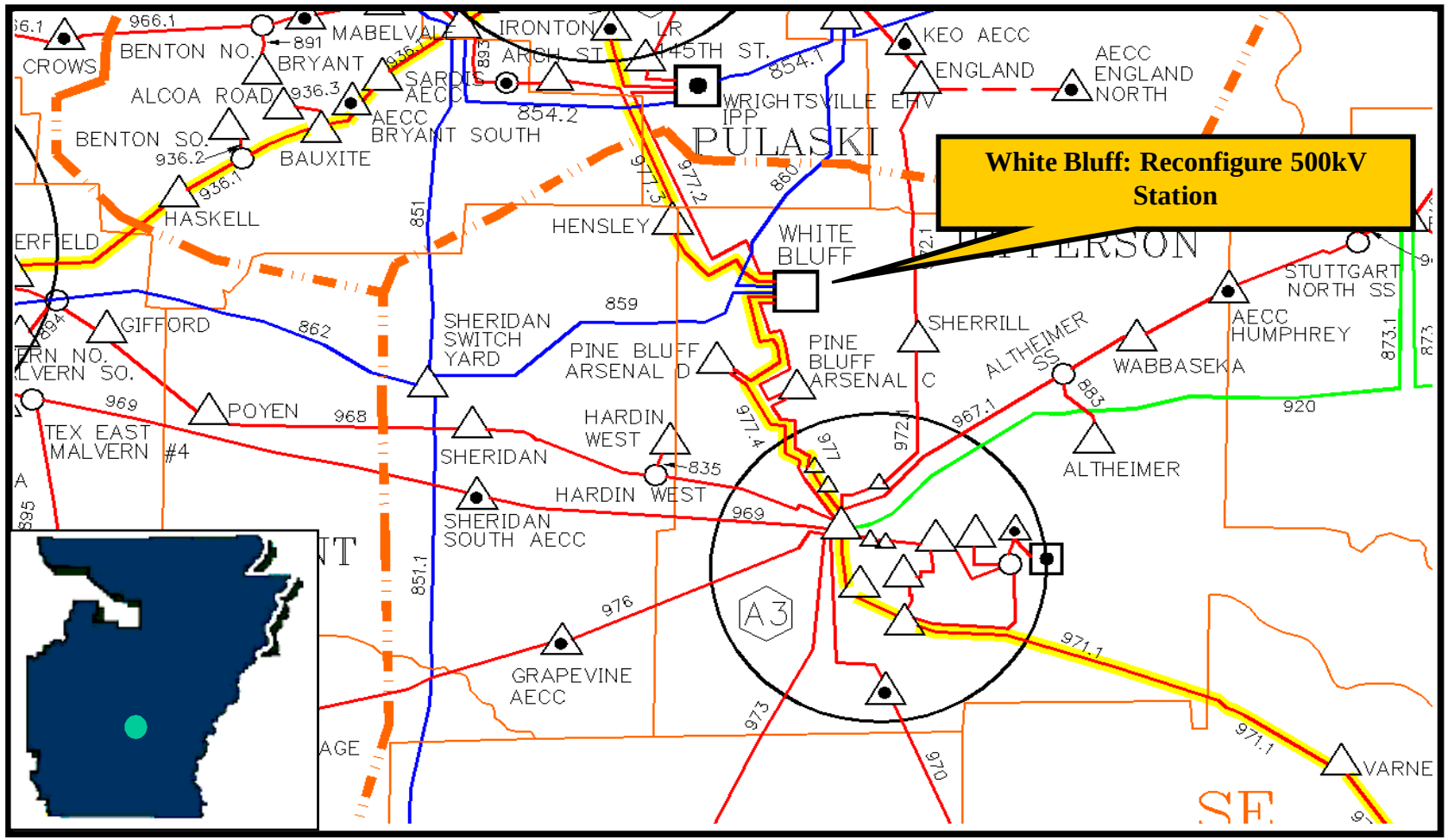
Proposed Solution:

- Reconfigure 500kV
- Construct a 230kV Ring Bus
- Add a 500/230kV Autotransformer

Proposed In Service Date: Summer 2015

White Bluff: Reconfigure 500 kV Station

11-EAI-017-CP



Proposed In Service Date: Summer 2015

Pine Bluff Voltage Support Phase 2

11-EAI-008-CP

Scenario:

The following contingencies result in low voltages and thermal overloads in the Pine Bluff area:

- Woodward to Pine Bluff West
- Skygen generation

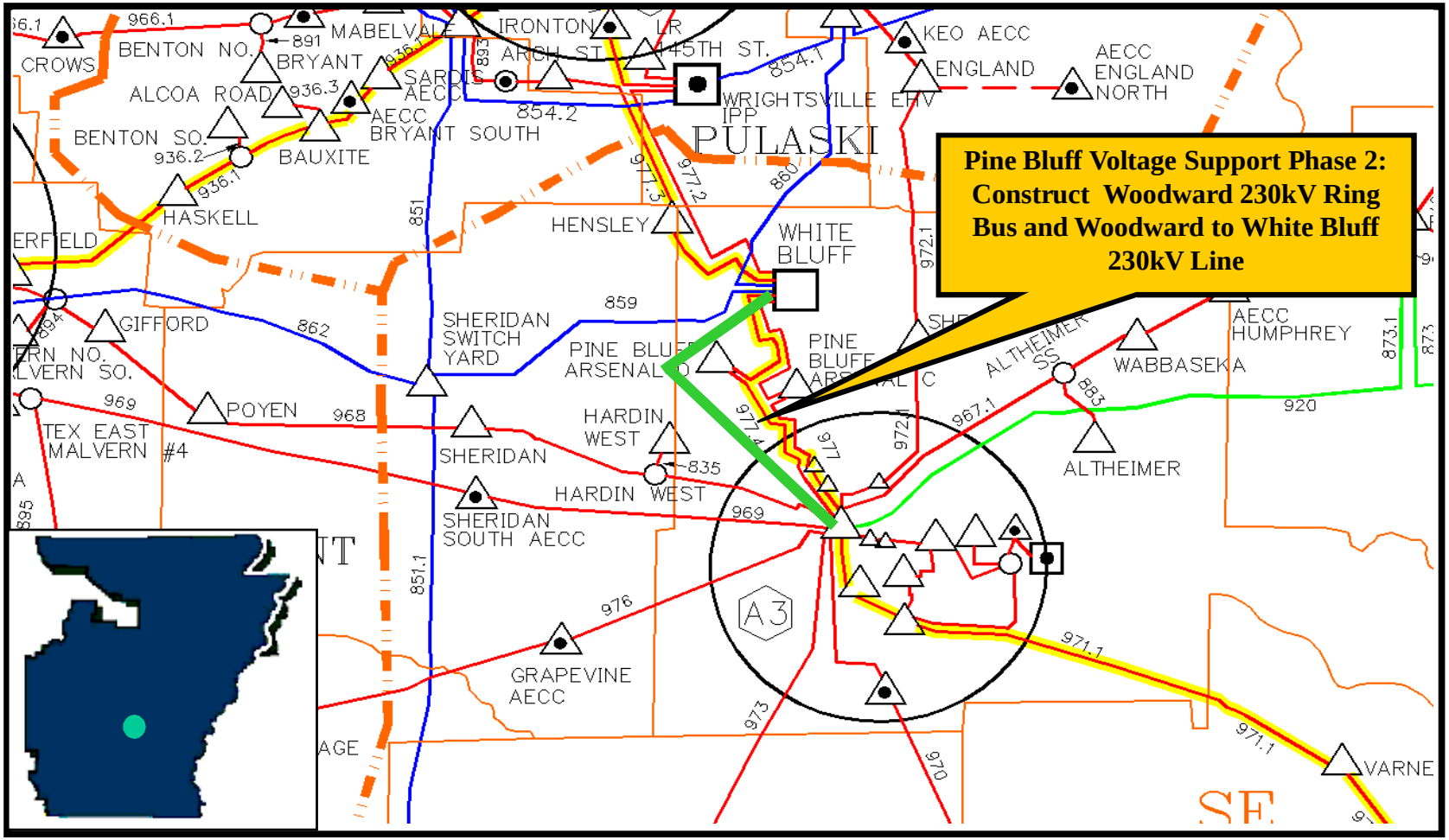
Proposed Solution:

- Construct 230kV Ring Bus at Woodward
- Construct a New 16.5 mile 230kV Line from Woodward to White Bluff with a minimum rating of 532MVA.

Proposed In Service Date: Summer 2015

Pine Bluff Voltage Support Phase 2

11-EAI-008-CP



Proposed In Service Date: Summer 2015

Monticello East to Reed: New 230kV Line Operating at 115kV

12-EAI-037-CP

Scenario:

The following contingencies result in low voltages along the line segments from Monticello East to Eldorado EHV:

- Loss of Eldorado EHV to Eldorado Quinn115kV
- Loss of Eldorado Quinn to Hilo
- Loss of Hilo to Hermitage
- Loss of Hermitage to Carmel

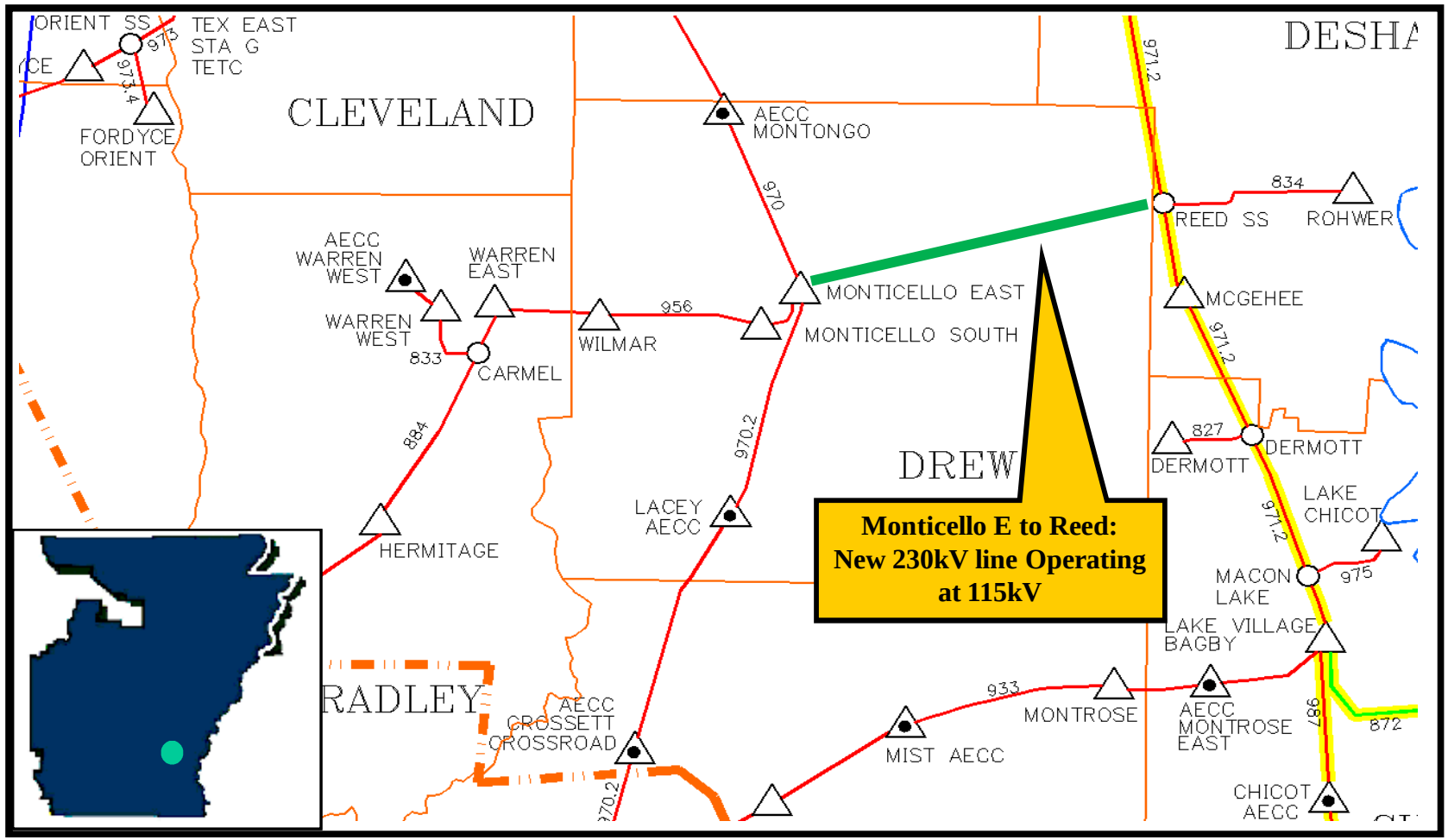
Proposed Solution:

- Build a new 22 mile 230kV Line from Monticello East to Reed operating at 115kV with a minimum rating of 390MVA.
- Add a Breaker at Monticello East , Convert Reed to Breaker Station, and upgrade all necessary equipment.

Proposed In Service Date: Summer 2015

Monticello East to Reed: New 230kV Line Operating at 115kV

12-EAI-036-CP



Proposed In Service Date: Summer 2015

HS EHV to HS Industrial: Upgrade Terminal Equipment
HS Industrial to HS Union Carbide: Upgrade Terminal Equipment
HS Union Carbide to HS East: Upgrade Terminal Equipment

12-EAI-(016-018)-CP

Scenario:

The following contingency results in thermal overloads along the 115kV transmission line Segments from Carpenter to Hot Springs EHV:

- Arklahoma to Carpenter Dam

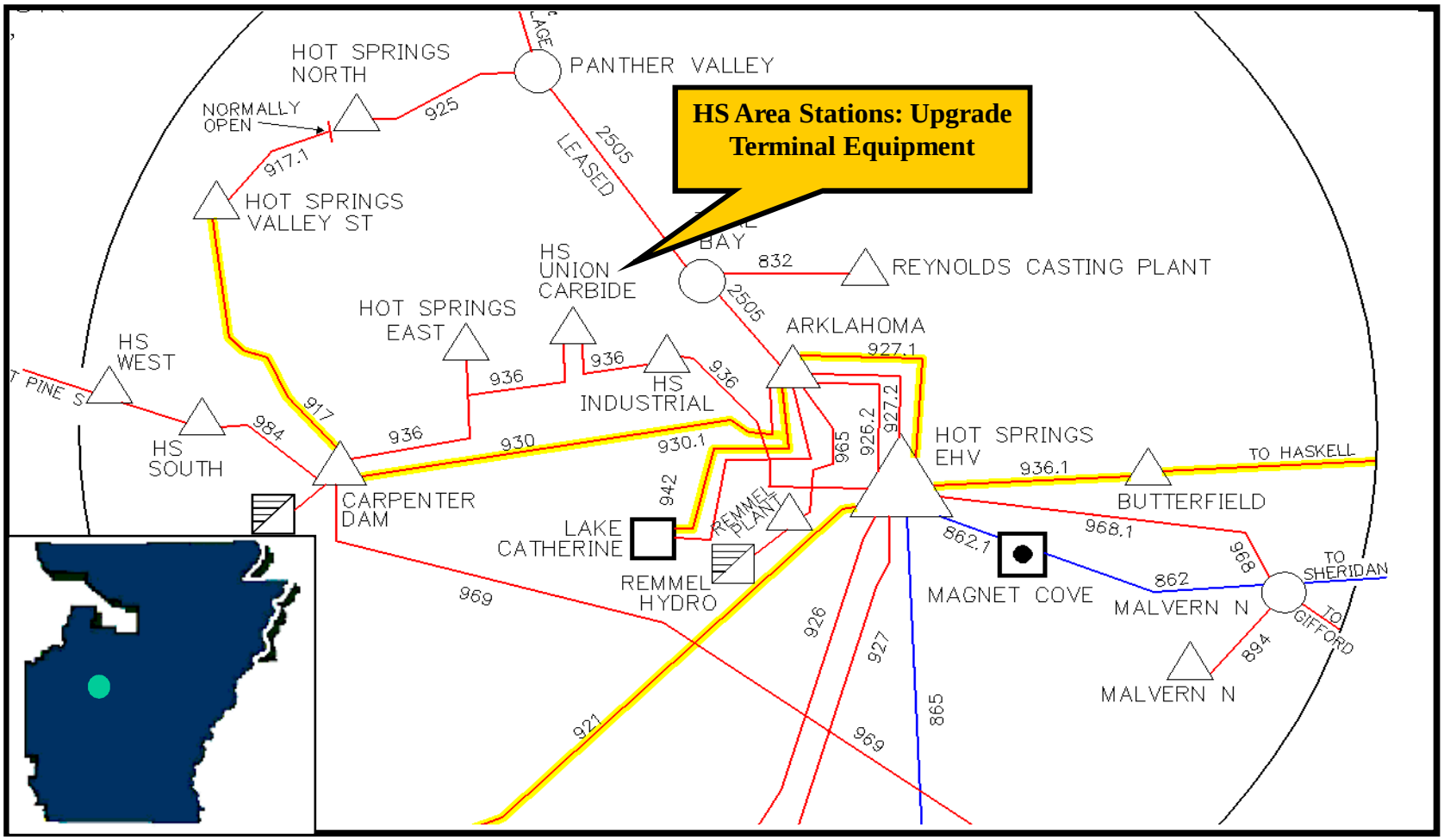
Proposed Solution:

- Upgrade the equipment listed in facility ratings Workbooks to 1200A.

Proposed In Service Date: Summer 2015

HS EHV to HS Industrial: Upgrade Terminal Equipment
HS Industrial to HS Union Carbide: Upgrade Terminal Equipment
HS Union Carbide to HS East: Upgrade Terminal Equipment

12-EAI-(016-018)-CP



Proposed In Service Date: Summer 2015

Hot Springs Milton to Carpenter Dam: New 115kV Line

11-EAI-007-CP

Scenario:

The following contingencies result in low voltages and thermal overloads around the Hot Springs area:

- Loss of Hot Springs South to Carpenter 115kV
- Loss of Blakely SPA to Mt. Pine South 115kV

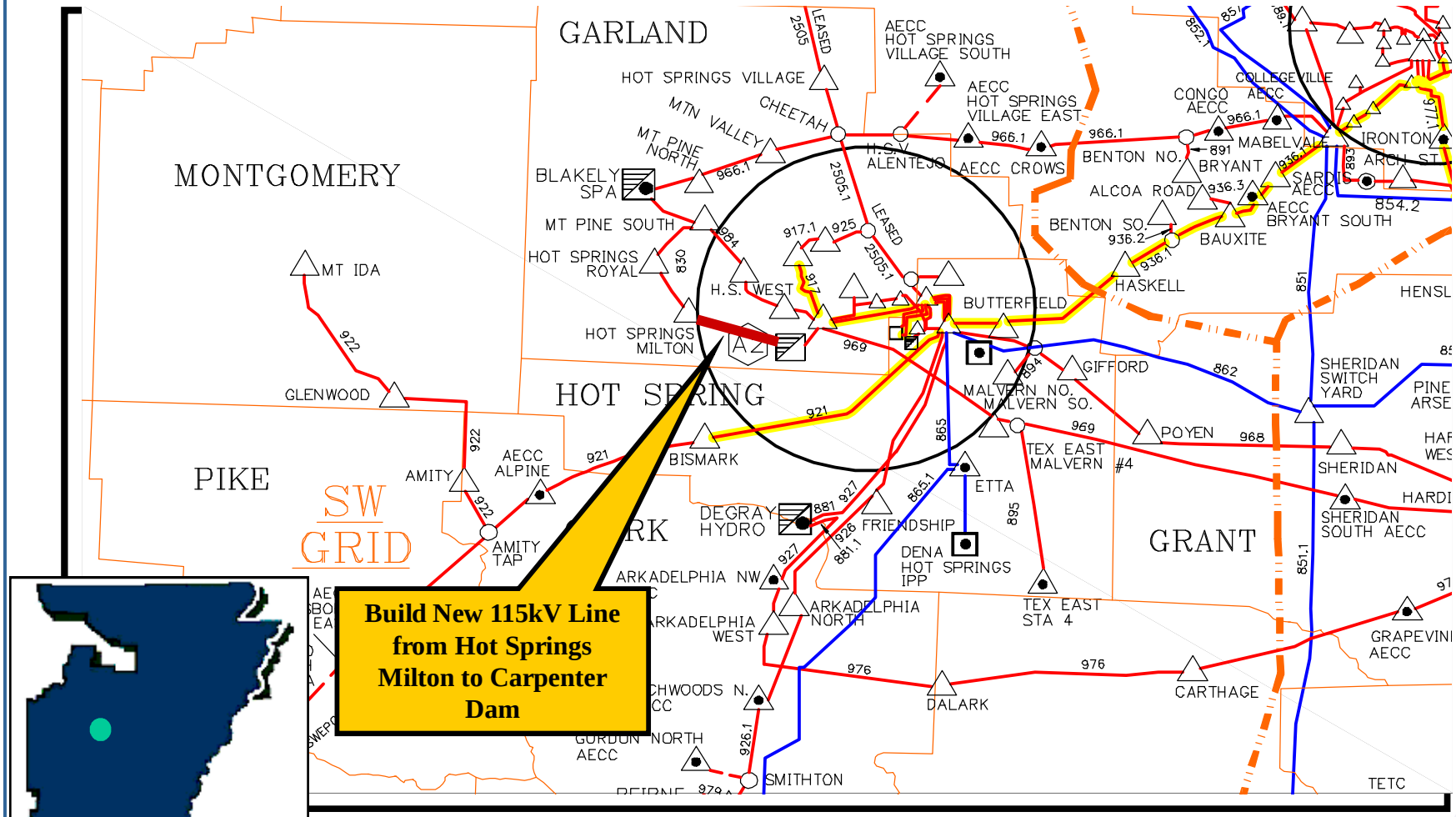
Proposed Solution:

- Build a new 10 mile 115kV line from Hot Springs Milton substation to Carpenter Dam substation with a minimum line section rating of 1200 Amps.
- Convert Mt Pine South to a 4 terminal ring bus with 1 portion of the ring bus labeled "Future".

Proposed In Service Date: Summer 2015

Hot Springs Milton to Carpenter Dam: New 115kV Line

11-EAI-007-CP



Proposed In Service Date: Summer 2015

AECC Hydro Station #2 to Gillett: New 115kV Line

11-EAI-027-CP

Scenario:

The following contingencies result in low voltages along the long 115kV transmission line from Stuttgart Ricuskey to Elaine:

- The Loss of Almyra to Stuttgart Ricuskey
- The loss of the Stuttgart Ricuskey 230kV Auto
- The loss of the Ritchie to Helena Industrial 115kV line.

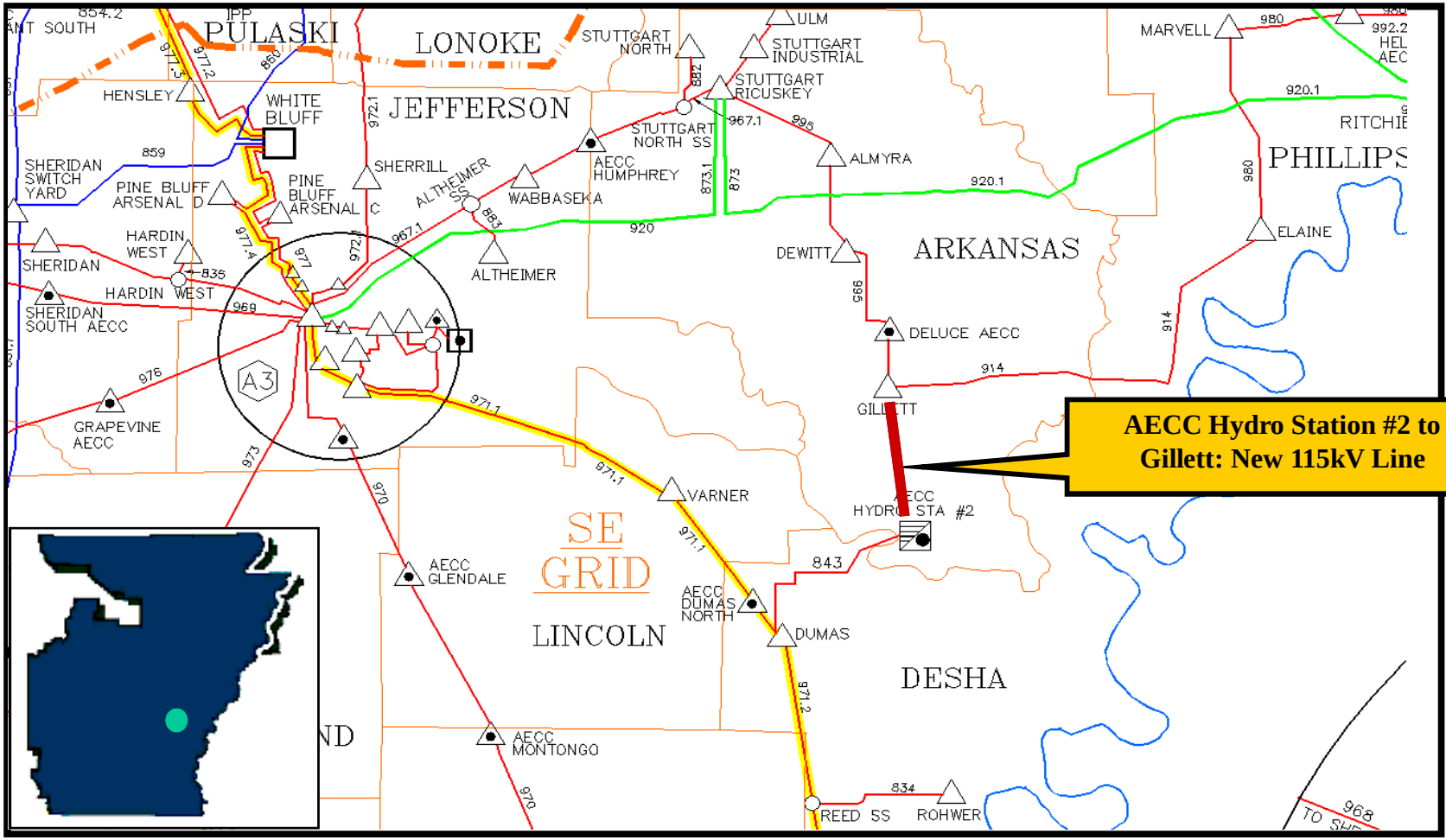
Proposed Solution:

- Build a New 30 mile 115kV line from Gillett to AECC L&D2 . The new line needs to have a minimum rating of 1200 Amps. A new breaker will be installed at Gillett and the bus at Gillett will have to be modified to accept the new line. Entergy and AECC will have to work together to add a new breaker at the AECC Hydro Station #2 station.

Proposed In Service Date: Summer 2016

AECC Hydro Station #2 to Gillett: New 115kV Line

11-EAI-027-CP



Proposed In Service Date: Summer 2016

Pine Bluff McCamant to Pine Bluff East: Reconductor Line

13-EAI-001-CP

Scenario:

- Loss of Woodward to Pine Bluff Watson Chapel 115kV results in the Pine Bluff McCamant to Pine Bluff East 115 kV line to exceed its thermal rating:

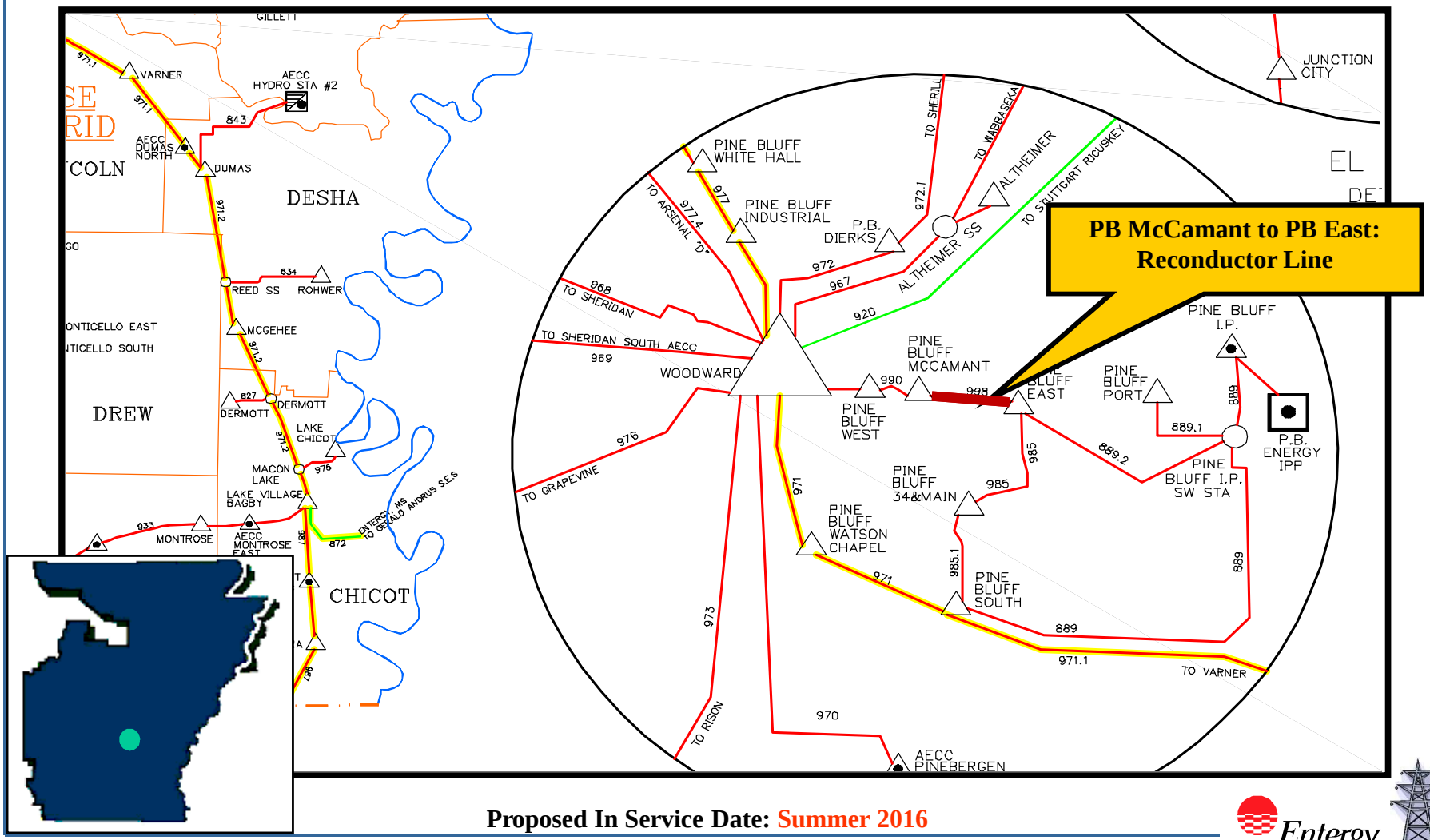
Proposed Solution:

- Reconductor 2.3 mile 115kV line Pine Bluff McCamant to Pine Bluff East with a minimum rating of 390MVA.

Proposed In Service Date: Summer 2016

Pine Bluff McCamant to Pine Bluff East: Reconductor Line

13-EAI-001-CP



Proposed In Service Date: Summer 2016

Woodward: Reconfigure 115kV Bus

12-EAI-003-CP

Scenario:

- The 115kV bus is a single bus single breaker scheme with a bus tie separating the North and South buses. By reconfiguring the Woodward 115kV bus into a folded breaker and a half scheme, a complete 115kV bus outage will not occur for a single stuck breaker or breaker fault. This will eliminate the potential of voltage collapse in the Pine Bluff area for an outage on the North and South 115kV buses.

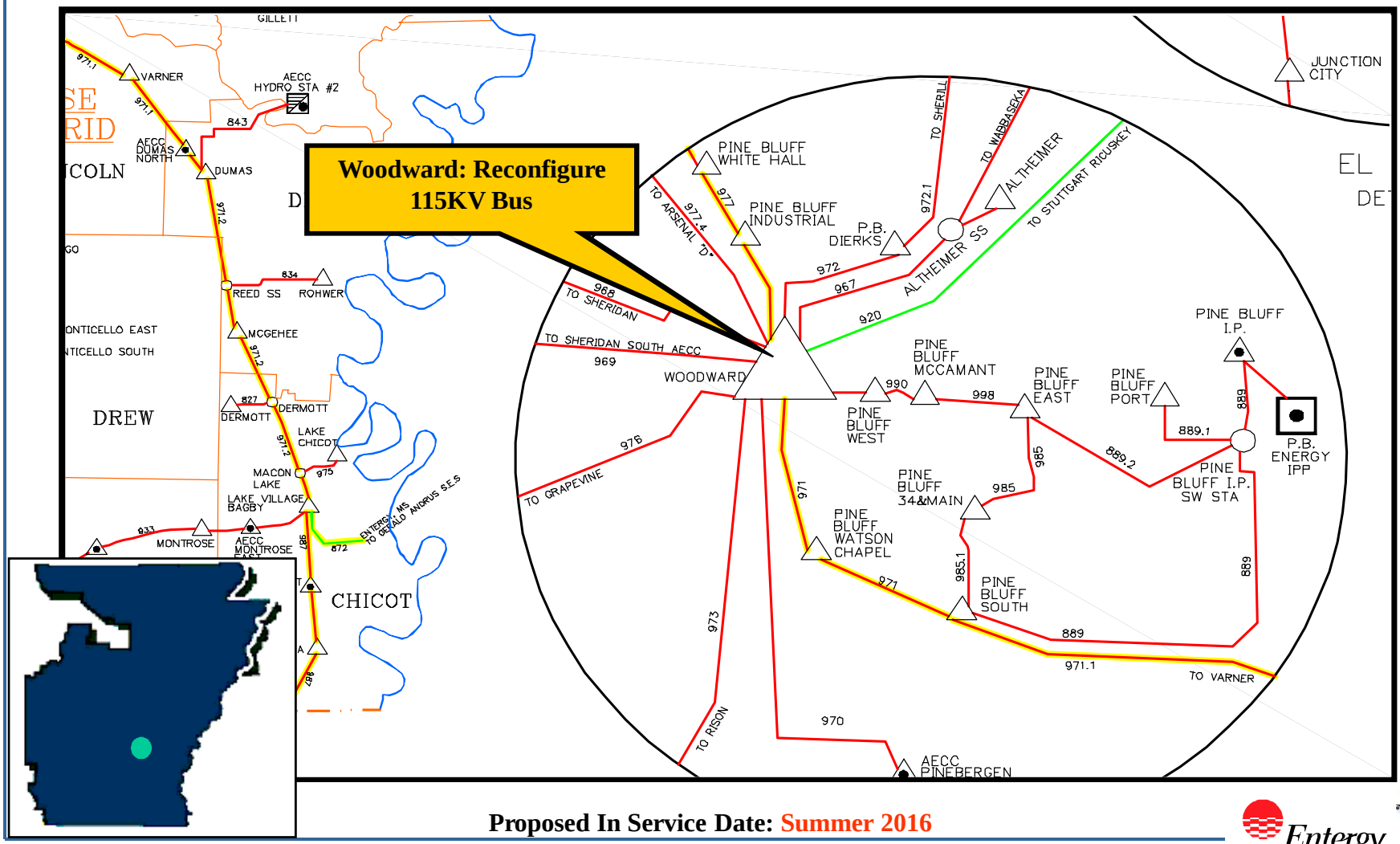
Proposed Solution:

- The North and South Woodward 115kV buses will be converted to a folded breaker and a half scheme. Once the project team has had a chance to evaluate the Woodward 115kV bus and determine the best approach, the project team and planning can work together to evaluate which 2 lines will share a common breaker in the breaker and a half scheme.

Proposed In Service Date: Summer 2016

Woodward: Reconfigure 115kV Bus

12-EAI-003-CP



Proposed In Service Date: Summer 2016

Mabelvale: Replace 500/115kV Autos

12-EAI-019-CP

Scenario:

The following contingency results in the Mabelvale autos to exceed their thermal capacity:

- Loss of One of the Auto Transformers onto the other
- Loss of Lynch and Mabelvale Generation

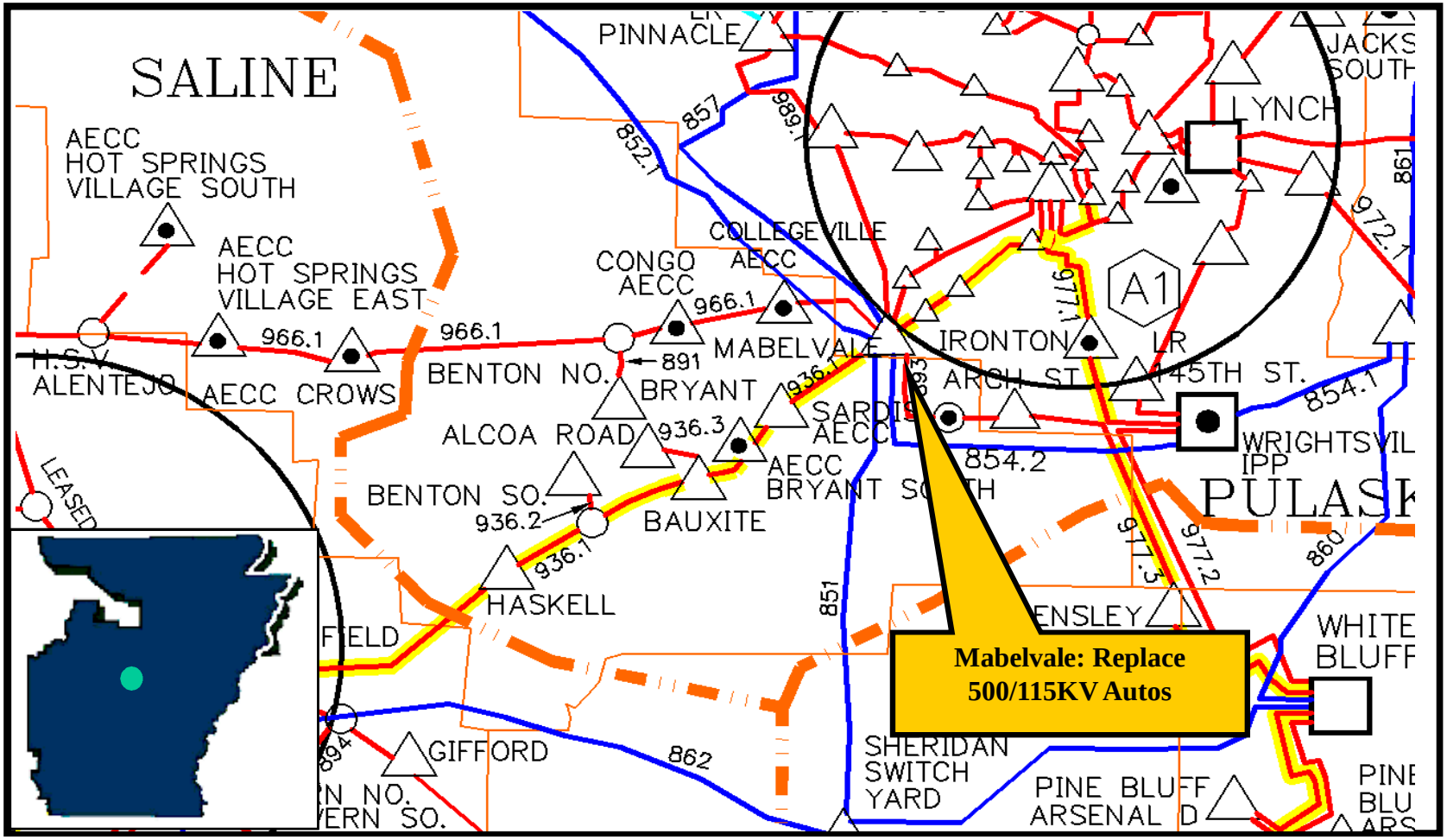
Proposed Solution:

- Replace both 500/115kV autos with 800MVA units

Proposed In Service Date: Summer 2016

Mabelvale: Replace 500/115kV Autos

12-EAI-019-CP



Proposed In Service Date: Summer 2016

Ward: Install 21.6MVAR Capacitor Bank

12-EAI-035-CP

Scenario:

- Loss of the Cabot to Holland Bottom Line results in low voltages in the area.

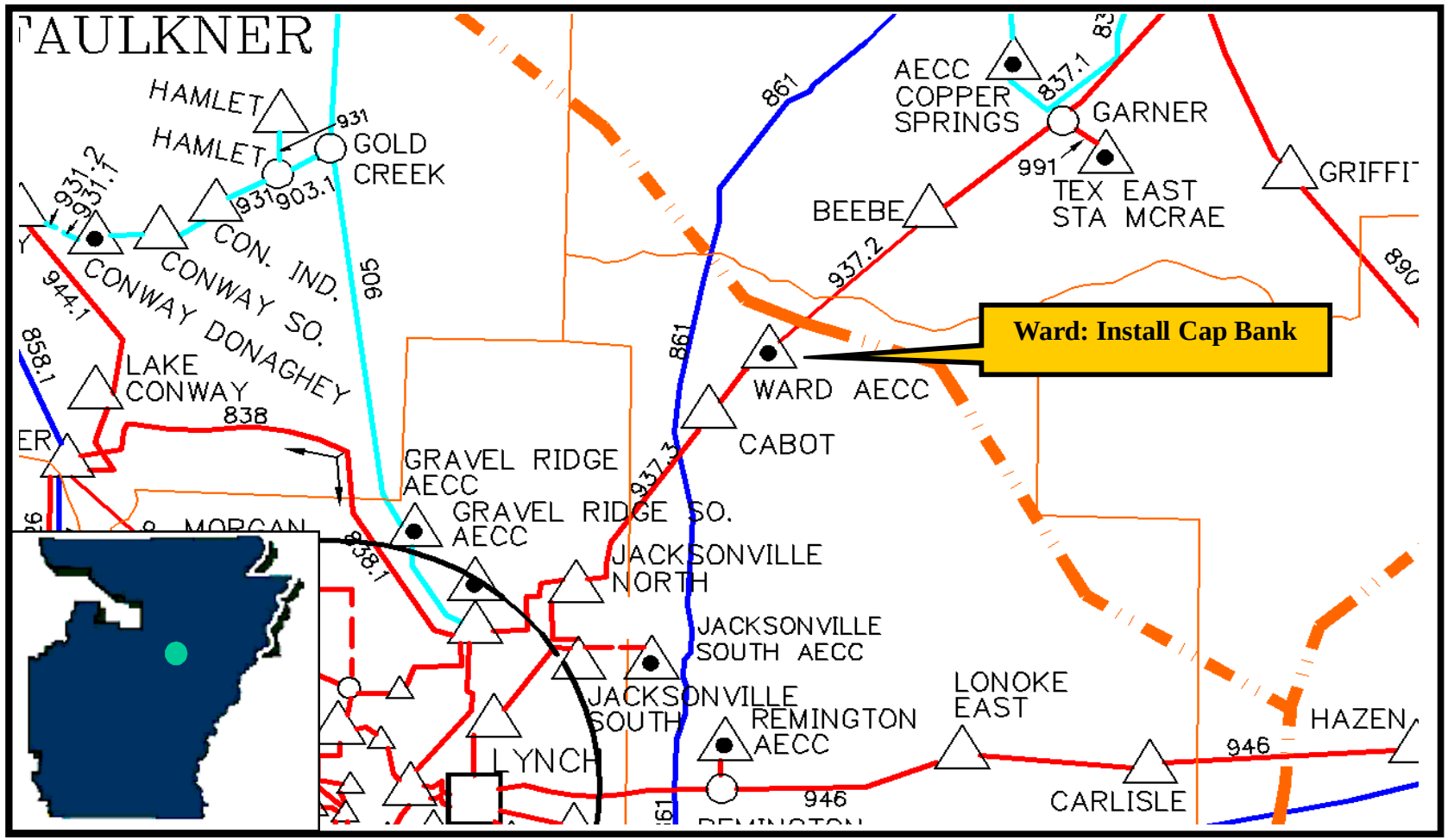
Proposed Solution:

- Add 21.6MVAR Capacitor Bank at Ward.

Proposed In Service Date: Summer 2016

Ward: Install 21.6MVAR Capacitor Bank

12-EAI-035-CP



Proposed In Service Date: Summer 2016

Macon Lake to Reed: New 230kV Line Operating at 115kV

13-EAI-038-CP

Scenario:

The following contingency results in the 115kV transmission lines from Macon Lake to Reed to exceed their thermal rating:

- Loss of Dumas to L&D #2 115kV

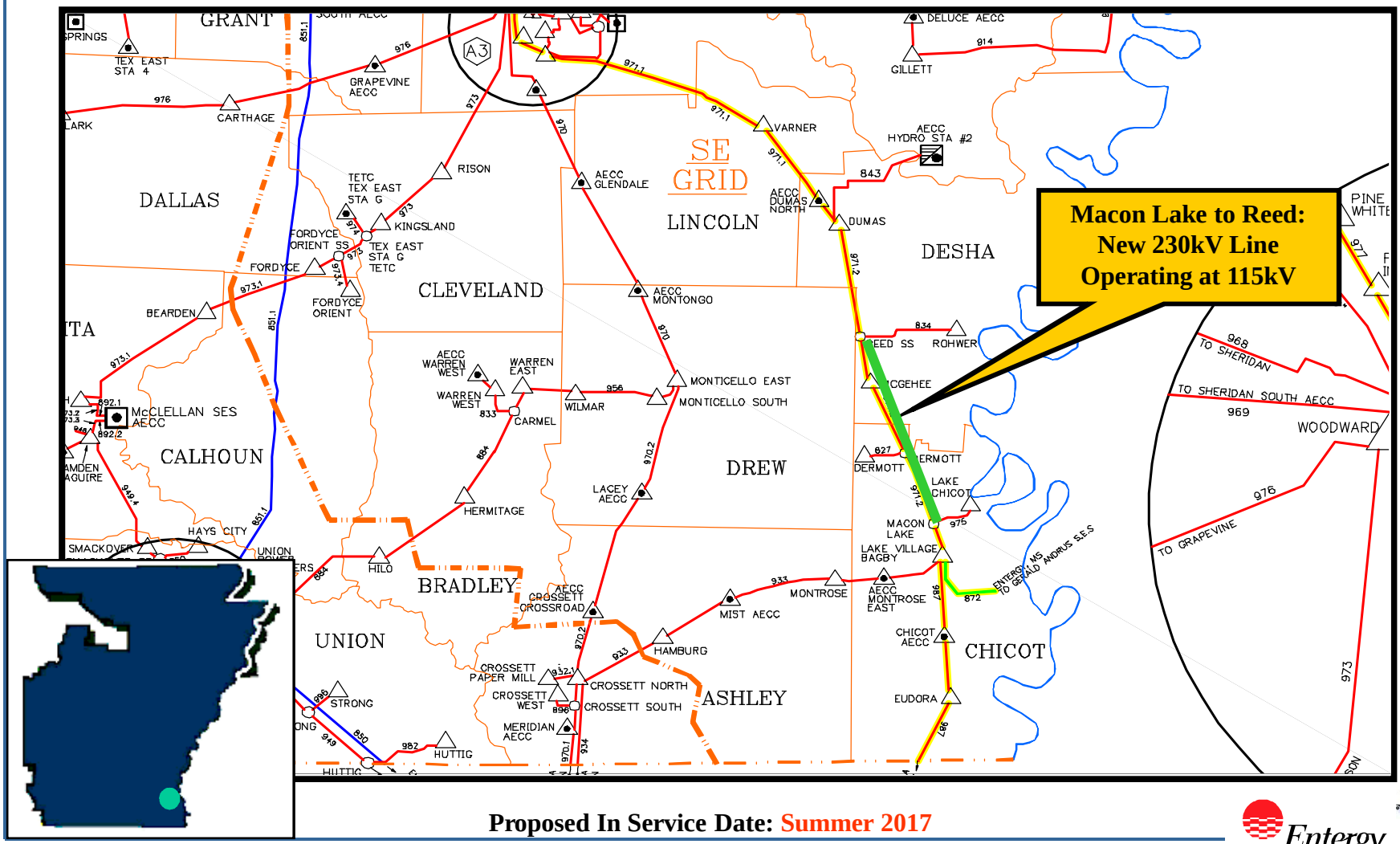
Proposed Solution:

- Construct New 22.38 mile 230kV Line operating at 115kV from Macon Lake to Reed. Lake Chicot load will be moved back to the original Macon lake tap.

Proposed In Service Date: Summer 2017

Macon Lake to Reed: New 230kV Line Operating at 115kV

12-EAI-038-CP



Proposed In Service Date: Summer 2017

Pine Bluff Watson Chapel to Pine Bluff South: Rebuild Line

13-EAI-002-CP

Scenario:

The following contingency results in the Pine Bluff Watson Chapel to Pine Bluff South 115 kV line exceed its thermal rating:

- Loss of Woodward to Pine Bluff West 115kV

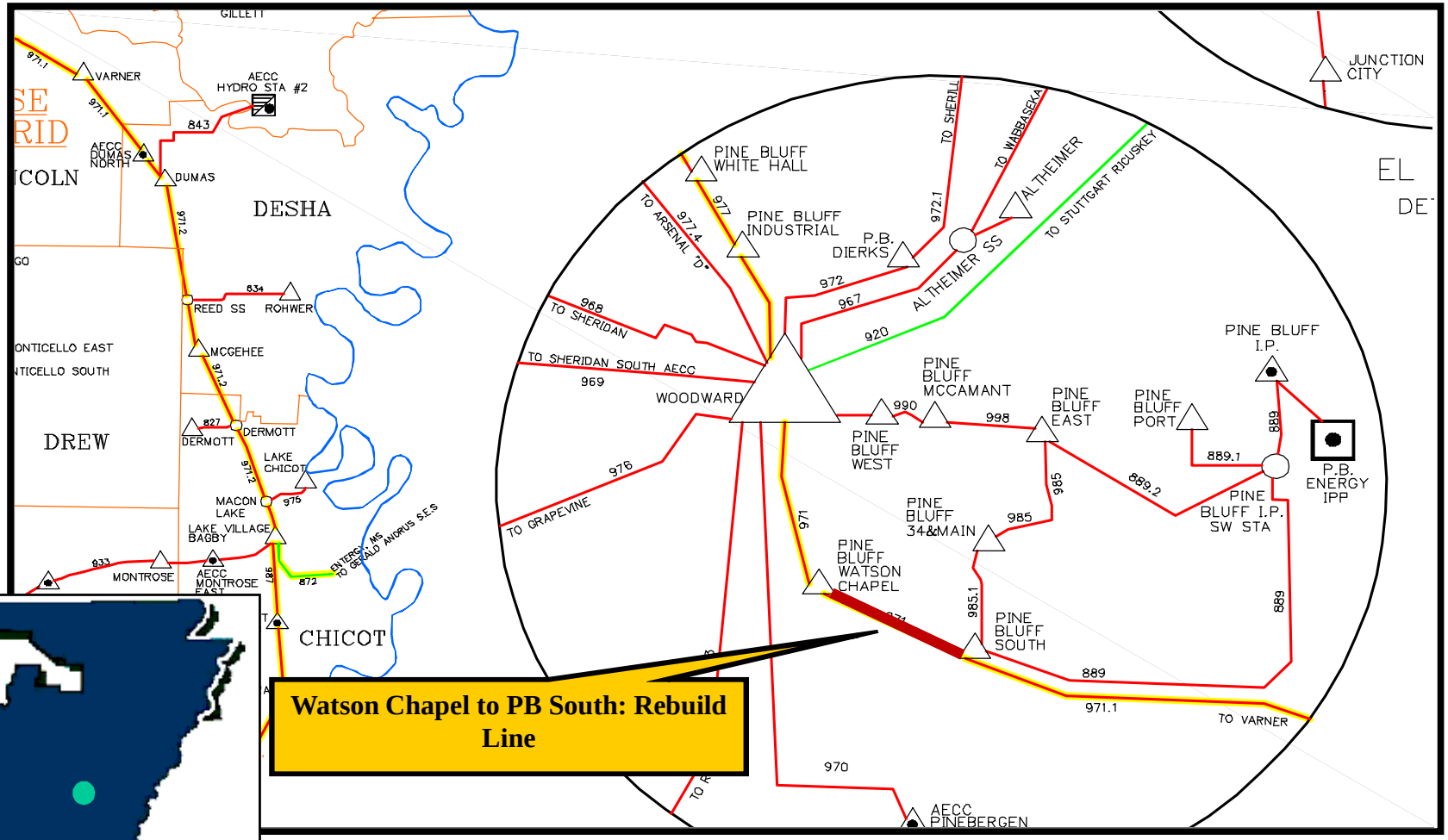
Proposed Solution:

- Rebuild 4.5 mile 115kV line Watson Chapel to Pine Bluff South to 230kV specifications operating at 115kV with a minimum rating of 390MVA.

Proposed In Service Date: Summer 2017

Pine Bluff Watson Chapel to Pine Bluff South: Rebuild Line

13-EAI-002-CP



Proposed In Service Date: Summer 2017

Malvern South: Add 10.2MVAR Capacitor Bank

12-EAI-027-CP

Scenario:

The following contingency results in low voltages occurring along the line from Carpenter to Woodward:

- Carpenter to Malvern South

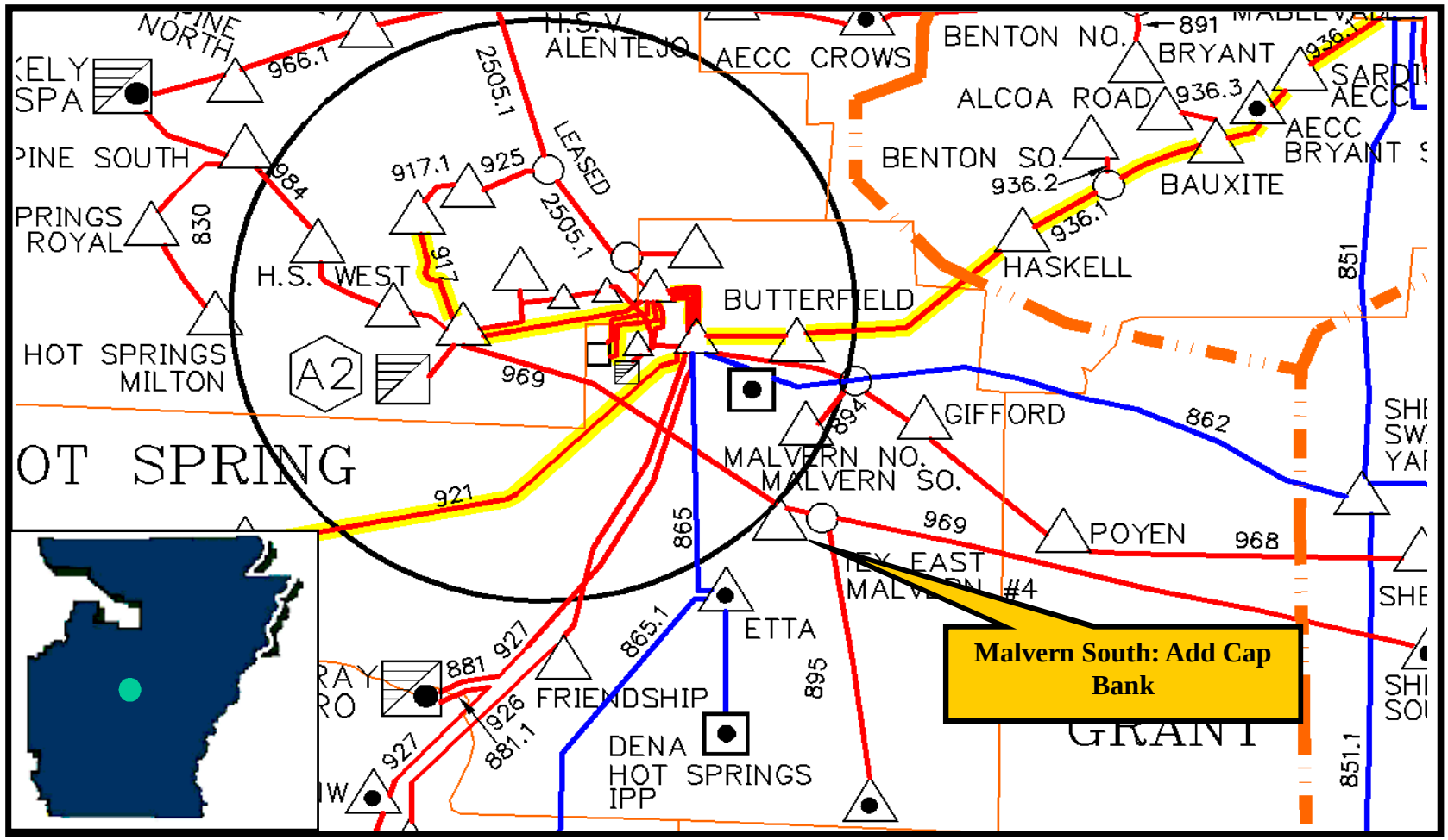
Proposed Solution:

- Add 10.2MVAR Capacitor Bank at Malvern South.

Proposed In Service Date: Summer 2017

Malvern South: Add 10.2MVAR Capacitor Bank

12-EAI-027-CP



Proposed In Service Date: Summer 2017

Mayflower: Reconfigure 500 kV Bus

12-EAI-021-CP

Scenario:

- Failure of breaker B8105 at Mayflower 500 kV substation will remove both 500/115 kV autotransformers #1 and #2 from service and could result in overloads on autotransformer #3.

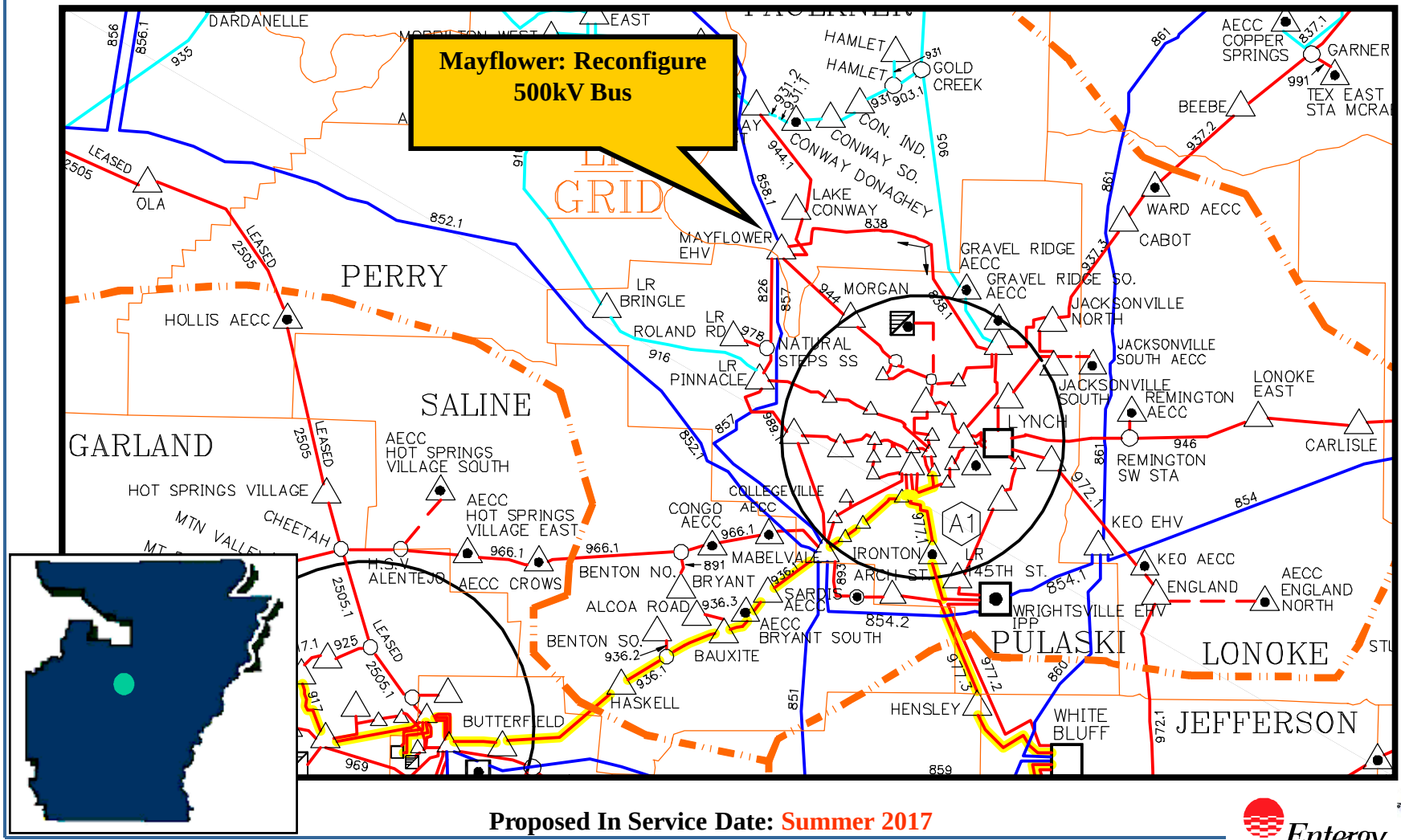
Proposed Solution:

- Construct a new breaker position on the 500 kV bus at Mayflower between Switch B8114 and Breaker B8118
- Purchase and install a new 3000 amp, 500 kV Breaker and associated switches.
- Move the Auto #2 high side node across Breaker B8118.

Proposed In Service Date: Summer 2017

Mayflower: Reconfigure 500 kV Bus

12-EAI-021-CP



Proposed In Service Date: Summer 2017

Doniphin (New) to Datto: Construct New 161kV Line

11-EAI-015-CP

Scenario:

The following contingency results in area lines exceeding their thermal ratings in the Jim Hill area:

- Water Valley to Water Valley SPA

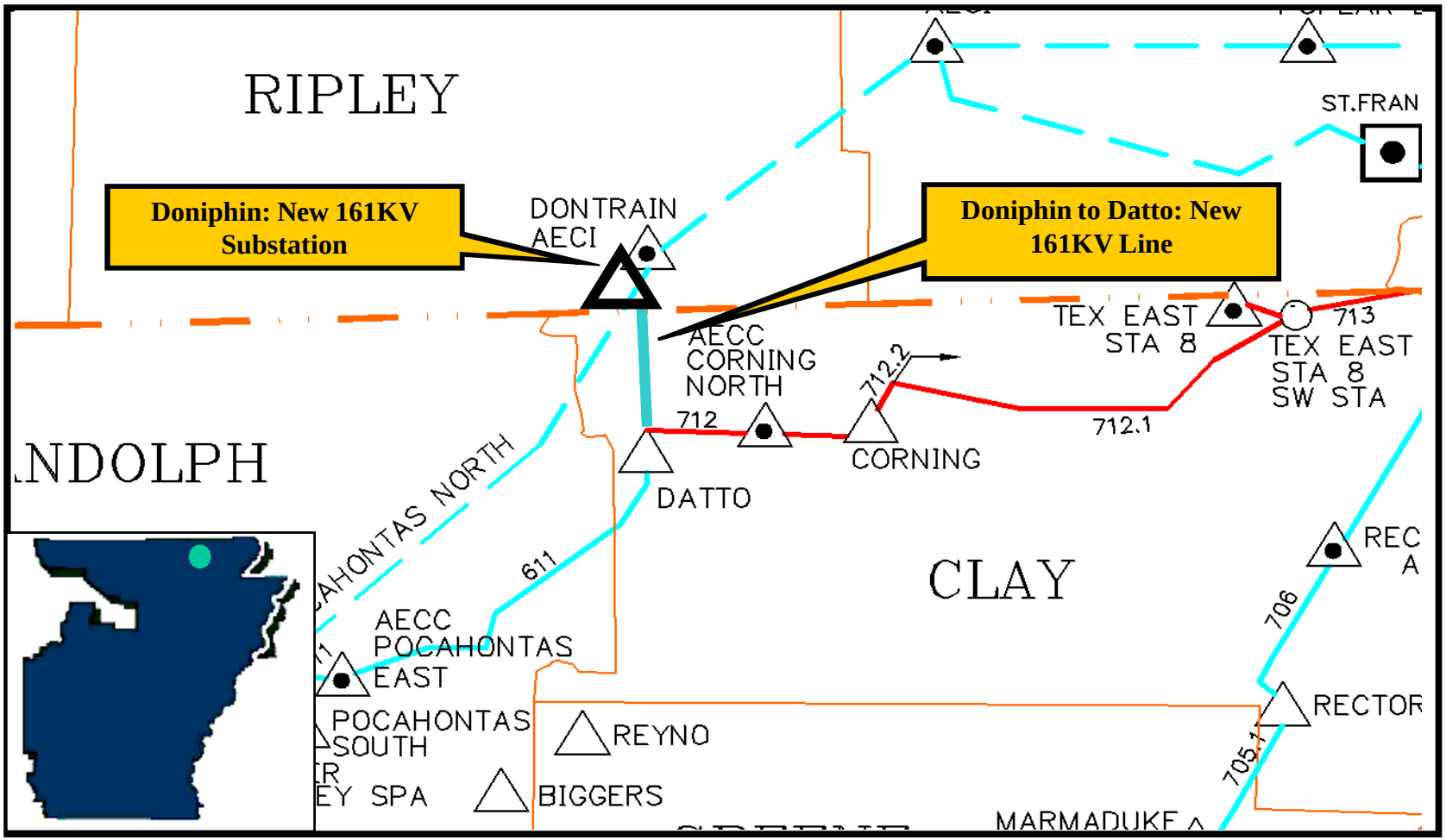
Proposed Solution:

- Construct New 15 mile 161kV Line from Doniphin (New Substation) to Datto with a minimum of 364 MVA.

Proposed In Service Date: Summer 2017

Doniphin (New) to Datto: Construct New 161kV Line

11-EAI-015-CP



Proposed In Service Date: Summer 2017

ISES: Reconfigure 161kV Bus

11-EAI-016-CP

Scenario:

- The loss of 161kV Bus #1 at Independence 500/161kV (ISES) substation will impact the loss of feeds to Newport and Searcy Price, Rutherford, and Sage. Also, the impact extending to Holland Bottom substation will cause thermal overload on lines Holland Bottom to Cabot and Cabot to Ward.

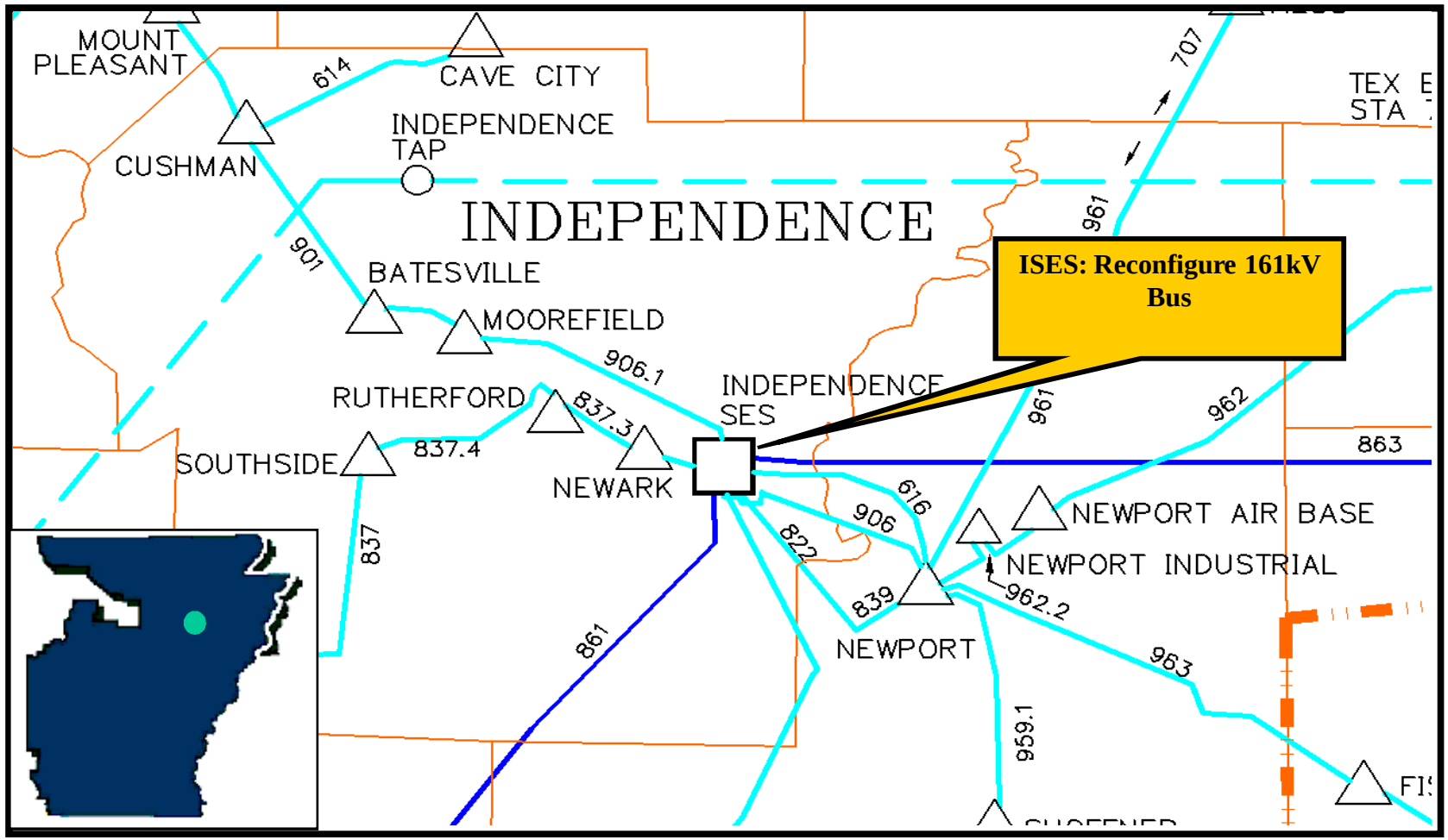
Proposed Solution:

- Reconfigure 161kV bus using breaker and half scheme. This requires addition of eight new 161kV breakers.

Proposed In Service Date: Summer 2018

ISES: Reconfigure 161kV Bus

11-EAI-016-CP



Proposed In Service Date: Summer 2018

Holland Bottom to Jacksonville North: Reconductor 115kV line

11-EAI-024-CP

Scenario:

The following contingencies result in the Holland Bottom to Jacksonville North 115kV line segment to exceed its thermal rating:

- Loss of Mabelvale to Wrightsville 500kV and Sheridan to Mabelvale 500kV
- Loss of Holland Bottom 500/161kV Auto
- Loss of Holland Bottom to Hamlet 161kV
- Loss of Holland Bottom to Cabot 115kV

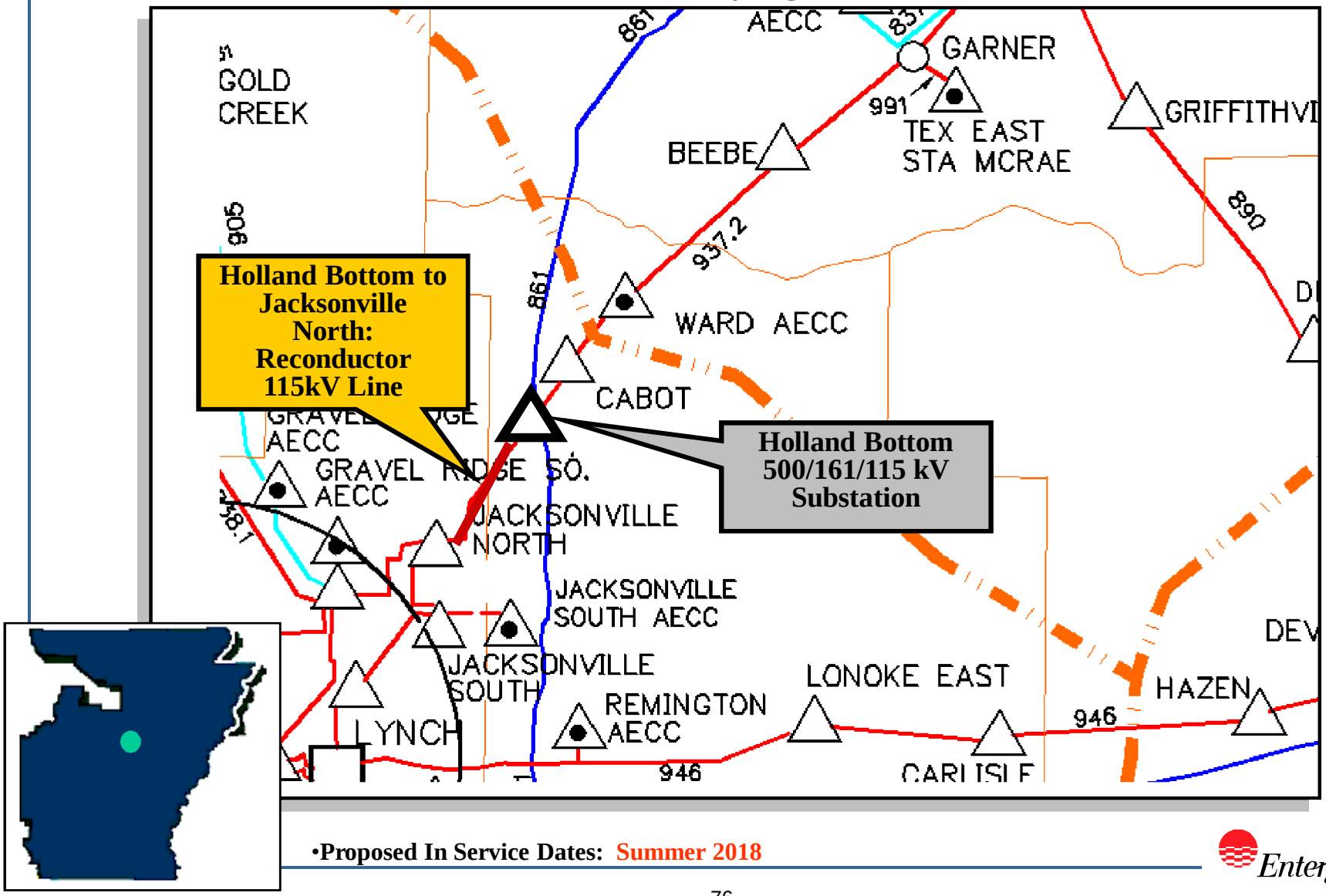
Proposed Solution:

- Re-conductor the 6.88 mile 115kV line Holland Bottom to Jacksonville North to a minimum of 394 MVA.

Proposed In Service Date: Summer 2018

Holland Bottom to Jacksonville North: Reconductor 115kV line

11-EAI-024-CP



•**Proposed In Service Dates:** Summer 2018

LR Kanis to LR Markham: Reconductor 115kV Line

12-EAI-031-CP

Scenario:

The following contingency results in the LR Kanis to LR Markham 115kV line to exceed its thermal rating:

- Loss of LR South to LR Rock Creek115kV

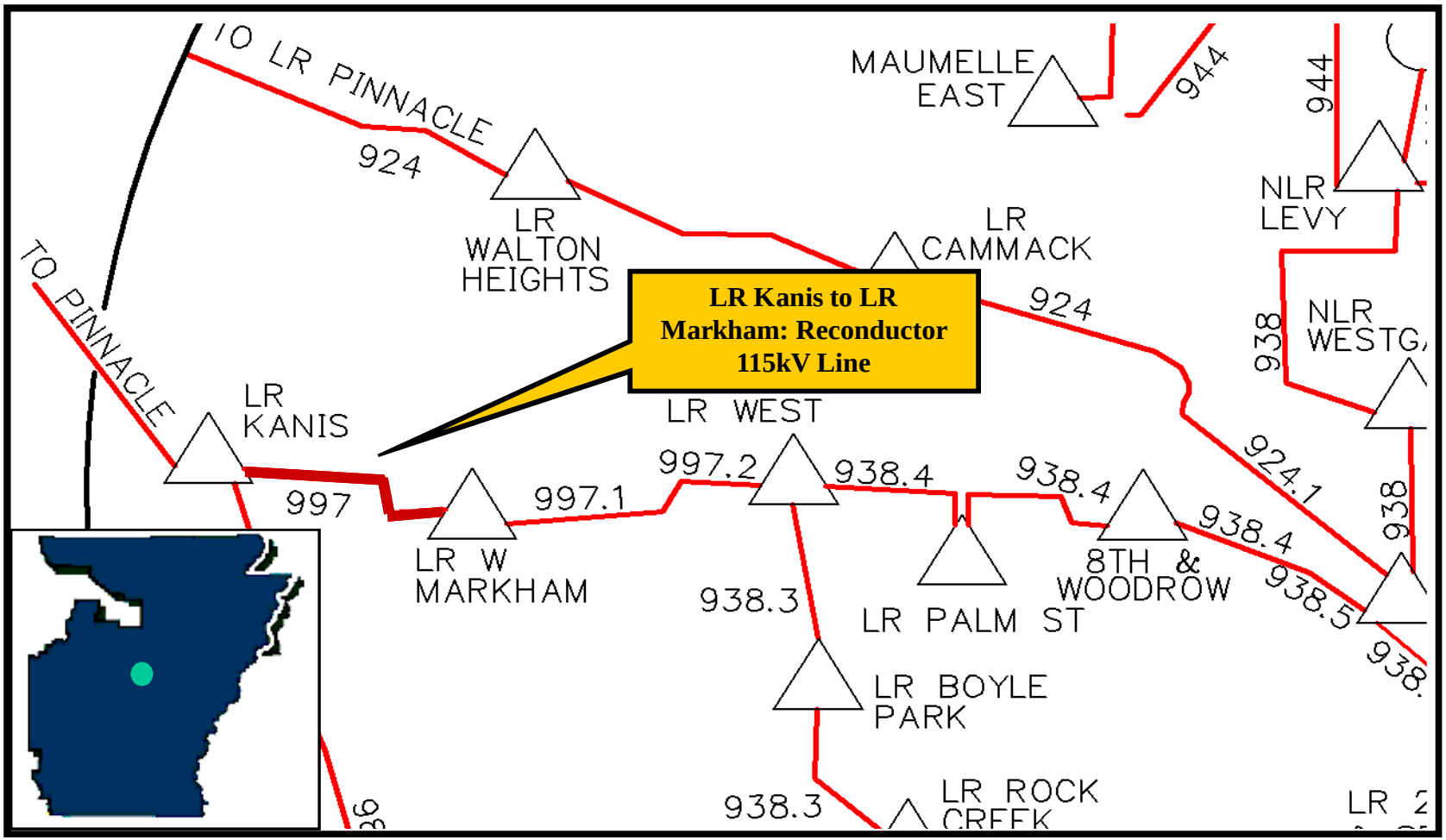
Proposed Solution:

- Re-conductor LR Kanis to LR Markham 115kV 3.55 mile line with a minimum rating of 390MVA. This includes upgrading remote station equipment.

Proposed In Service Date: Summer 2018

LR Kanis to LR Markham: Reconductor 115kV Line

12-EAI-031-CP



Proposed In Service Date: Summer 2018

LR West to LR Palm: Re-conductor 115kV Line

12-EAI-009-CP

Scenario:

The following contingency results in the LR West to LR Palm 115kV line to exceed its thermal rating:

- Loss of NLR Levy to NLR Westgate 115kV

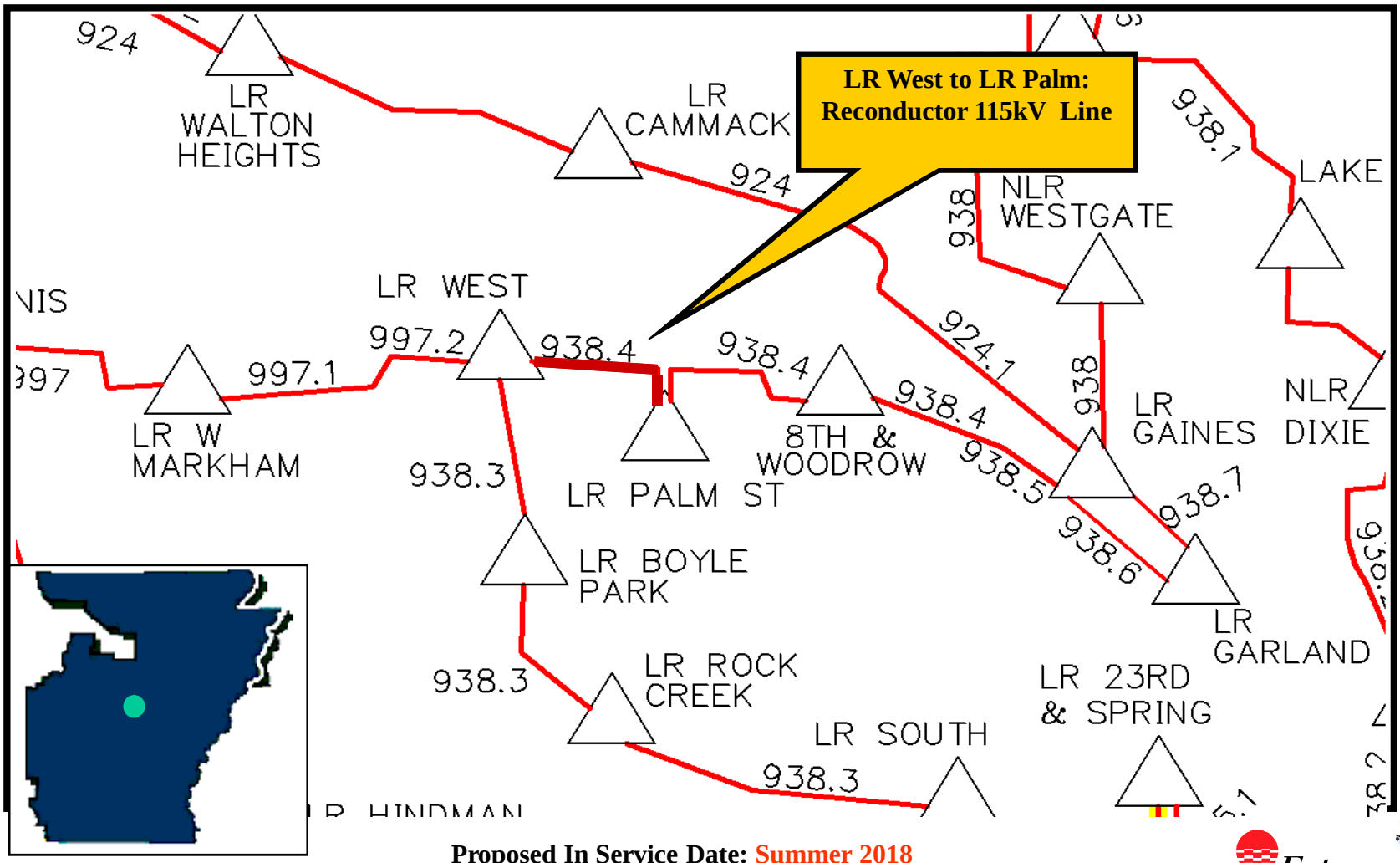
Proposed Solution:

- Re-conductor LR West to LR Palm 1.9 mile 115kV line with a minimum rating of 390MVA. This includes upgrading remote station equipment.

Proposed In Service Date: Summer 2018

LR West to LR Palm: Reconductor 115kV Line

12-EAI-009-CP



Proposed In Service Date: Summer 2018

NLR Westgate to LR Gaines: Re-conductor 115kV Line

12-EAI-010-CP

Scenario:

The following contingency causes the LR Westgate to LR Gaines 115kV line to exceed its thermal rating:

- Loss of LR South to LR Rock Creek 115kV

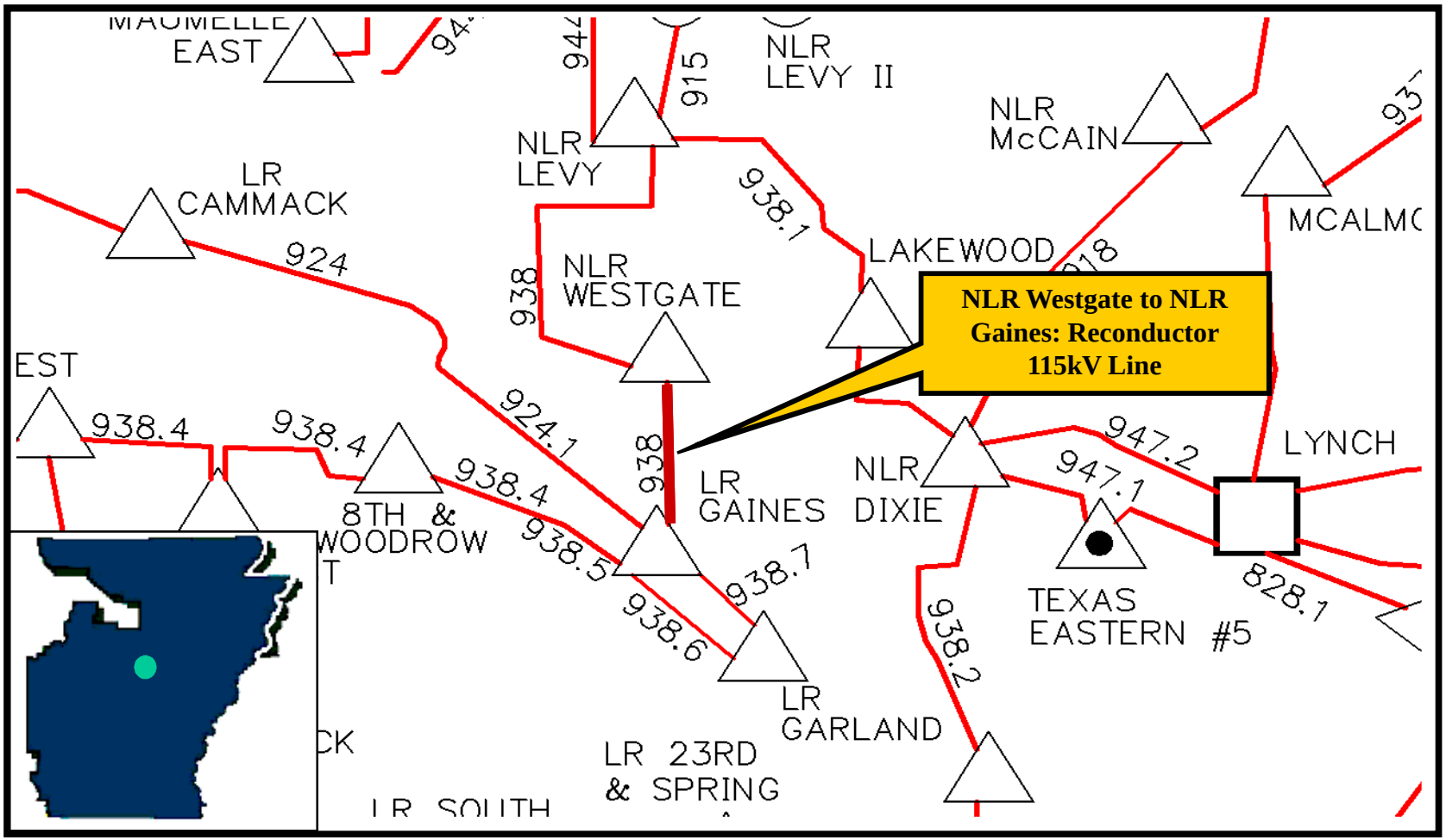
Proposed Solution:

- Re-conductor LR Westgate to LR Gaines 0.5 mile 115kV line with a minimum rating of 390MVA. This includes upgrading remote station equipment.

Proposed In Service Date: Summer 2018

NLR Westgate to LR Gaines: Reconductor 115kV Line

12-EAI-010-CP



Proposed In Service Date: Summer 2018

Mabelvale to Bryant: Re-conductor 115kV Line

12-EAI-014-CP

Scenario:

The following contingency results in the Mabelvale to Bryant 115kV line to exceed its thermal rating:

- Loss of Butterfield to Hot Springs EHV 115kV

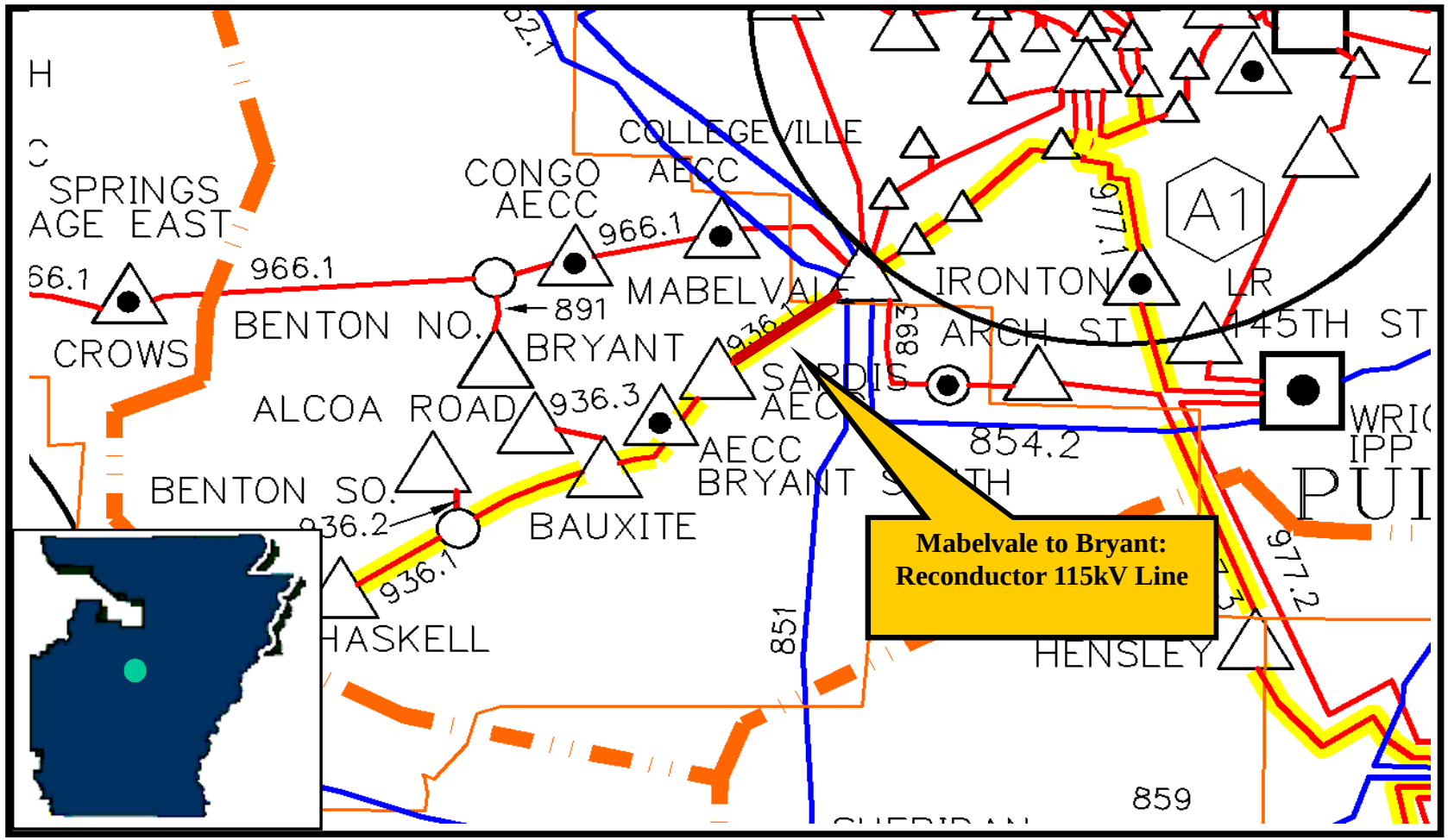
Proposed Solution:

- Re-conductor Mabelvale to Bryant 5 mile 115kV line with a minimum rating of 390MVA. This includes upgrading remote station equipment.

Proposed In Service Date: Summer 2018

Mabelvale to Bryant: Re-conductor 115kV Line

12-EAI-021-CP



Proposed In Service Date: Summer 2018

Cheetah to HS Village: Re-conductor 115kV Line

12-EAI-029-CP

Scenario:

The following contingency causes the Cheetah to Hot Springs Village 115kV line to overload:

- Loss of ANO to Ft. Smith

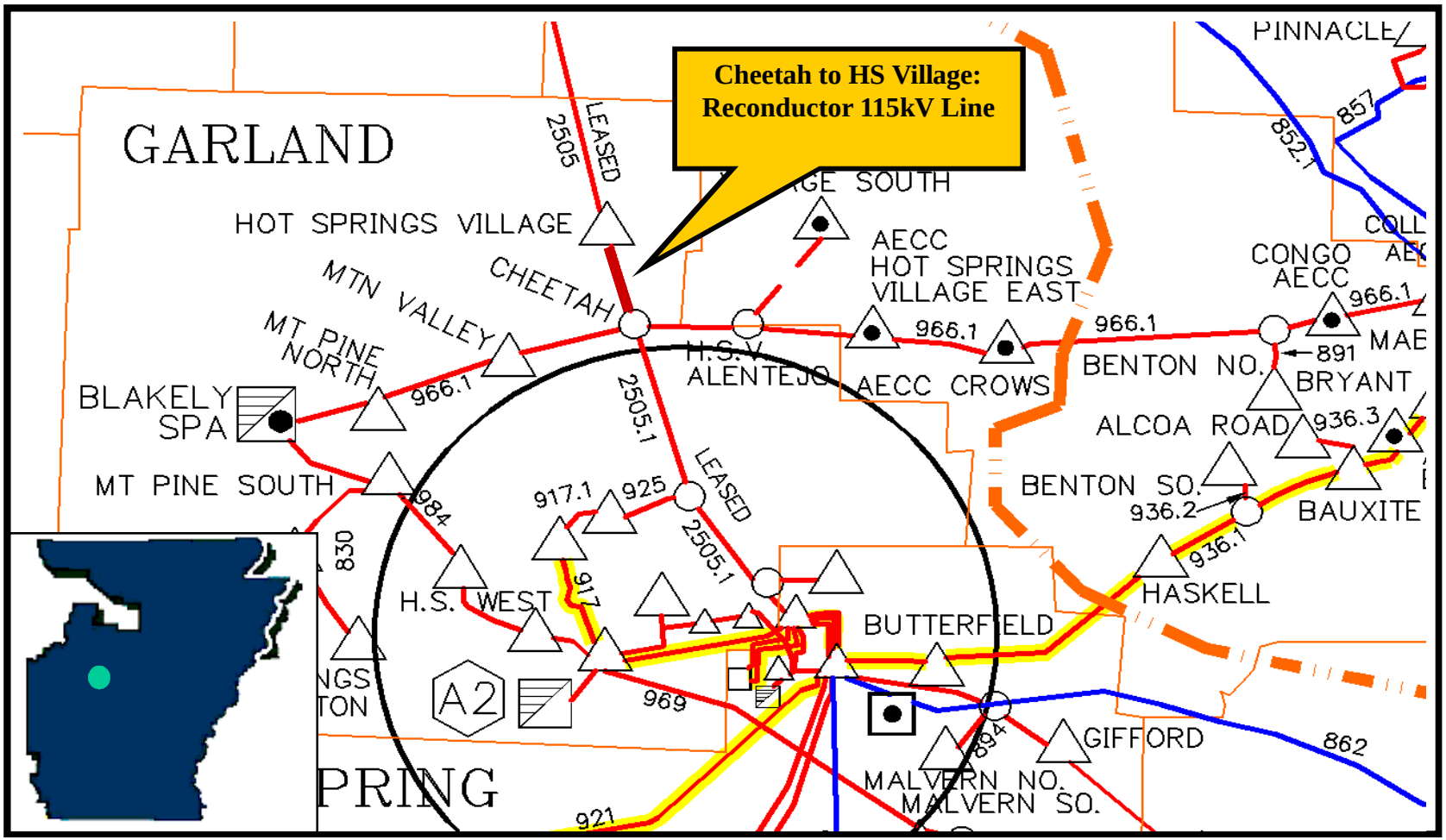
Proposed Solution:

- Reconductor Cheetah to Hot Springs Village 2.85 mile 115kV line with a minimum rating of 319MVA. This includes upgrading remote station equipment.

Proposed In Service Date: Summer 2018

Cheetah to HS Village: Re-conductor 115kV Line

12-EAI-029-CP



Proposed In Service Date: Summer 2018

Gum Springs: New 115kV Substation and New 115kV Line to Amity

12-EAI-032-01,02-CP

Scenario:

The following contingency results in area line exceeding their thermal ratings in the area south of Hot Springs:

- Loss of Bismarck to Hot Springs

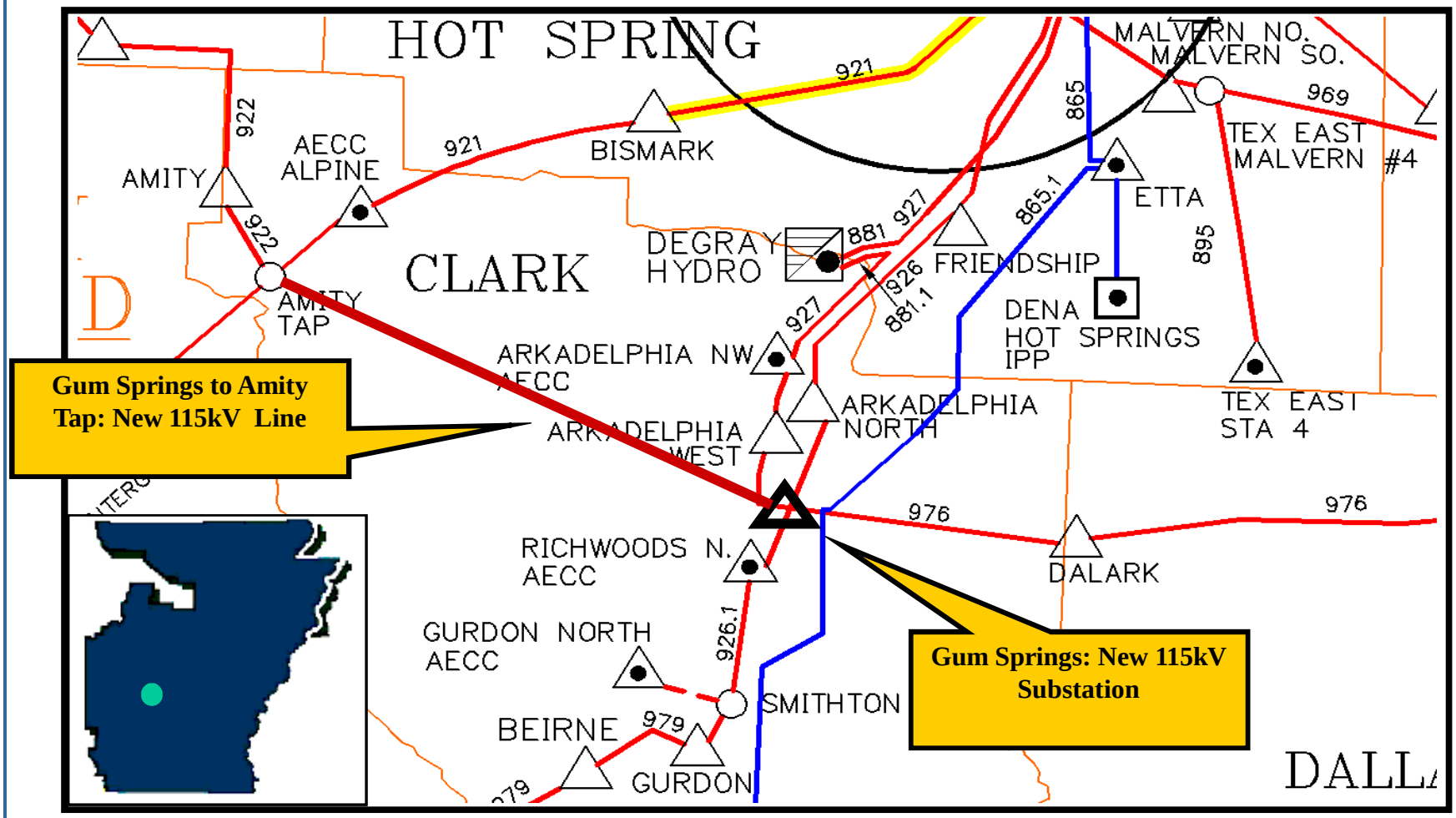
Proposed Solution:

- Build new 115kV Substation named Gum Springs near crossing of Arkadelphia West to Dalark and Arkadelphia North to Richwoods North Lines
- Change Amity tap to breaker station and Build a new 30 mile 115kV line from Amity breaker station to Gum Springs with a minimum rating of 390MVA.

Proposed In Service Date: Summer 2018

Gum Springs: New 115kV Substation and New 115kV Line to Amity Tap

12-EAI-032-01,02-CP



Proposed In Service Date: Summer 2018

Russellville East to Russellville North: Re-conductor 161kV Line

12-EAI-006-CP

Scenario:

- The following contingencies results in the Russellville East to Russellville North 161kV line to exceed its thermal rating:
- Loss of Mabelvale to ANO 500kV
- Loss of ANO to Ft. Smith 500kV

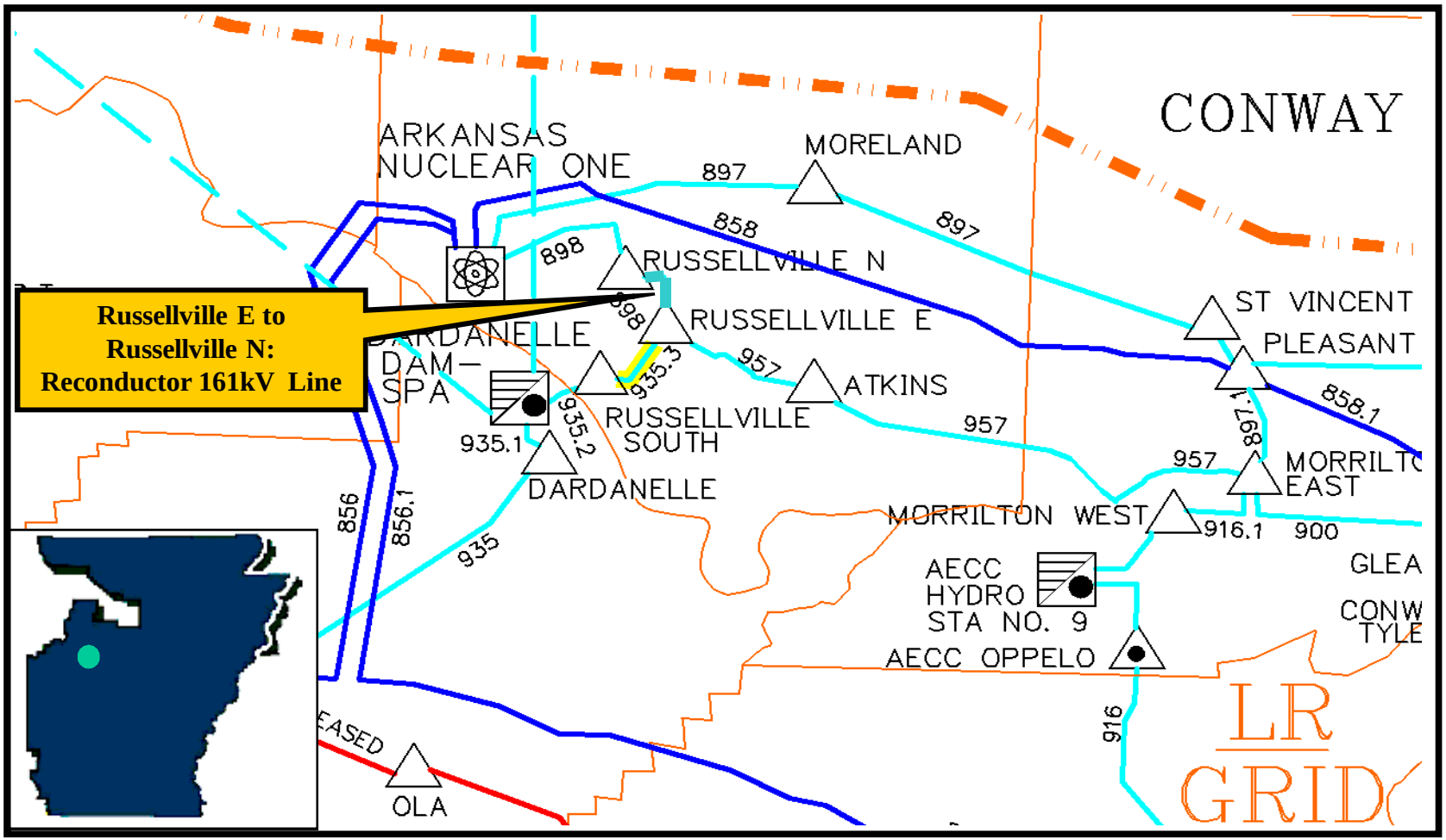
Proposed Solution:

- Re-conductor Russellville East to Russellville North 3.19 mile 161kV line with a minimum rating of 390MVA. This includes upgrading remote station equipment.

Proposed In Service Date: Summer 2018

Russellville East to Russellville North: Reconductor 161kV Line

12-EAI-006-CP



Proposed In Service Date: Summer 2018

Transmission Horizon Projects

1) Paragould to Paragould South: Upgrade Terminal Equipment (2020)

2) LR Boyle Park to LR West: Upgrade Terminal Equipment (2020)

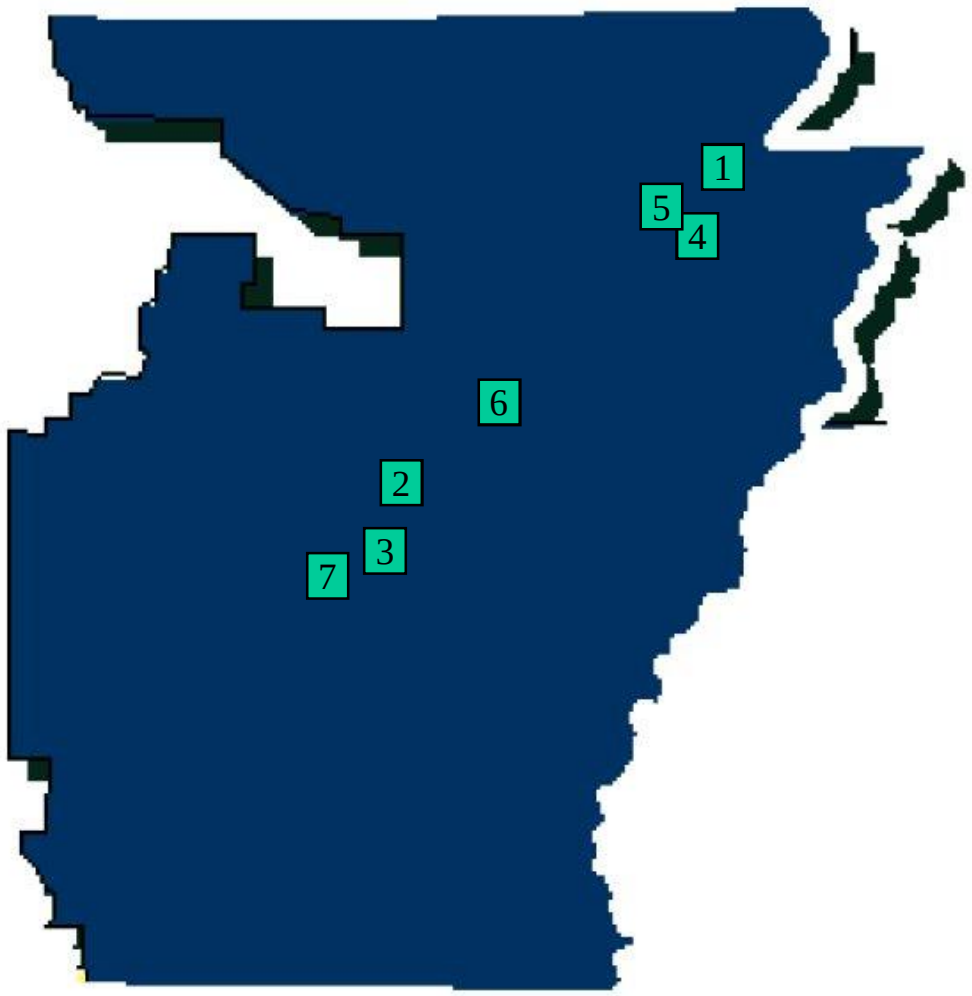
3) LR Mann Road to LR Chicot: Upgrade Terminal Equipment (2020)

4) Hergett: Add 36MVAR Capacitor Banks (2020)

5) Jonesboro to Jonesboro SPA: Re-conductor 161kV Line (2020)

6) Cabot: Install 21.6MVAR Capacitor Bank (2020)

7) Bryant: Install 21.6MVAR Capacitor Bank (2021)



Entergy

Entergy Mississippi, Inc. Transmission

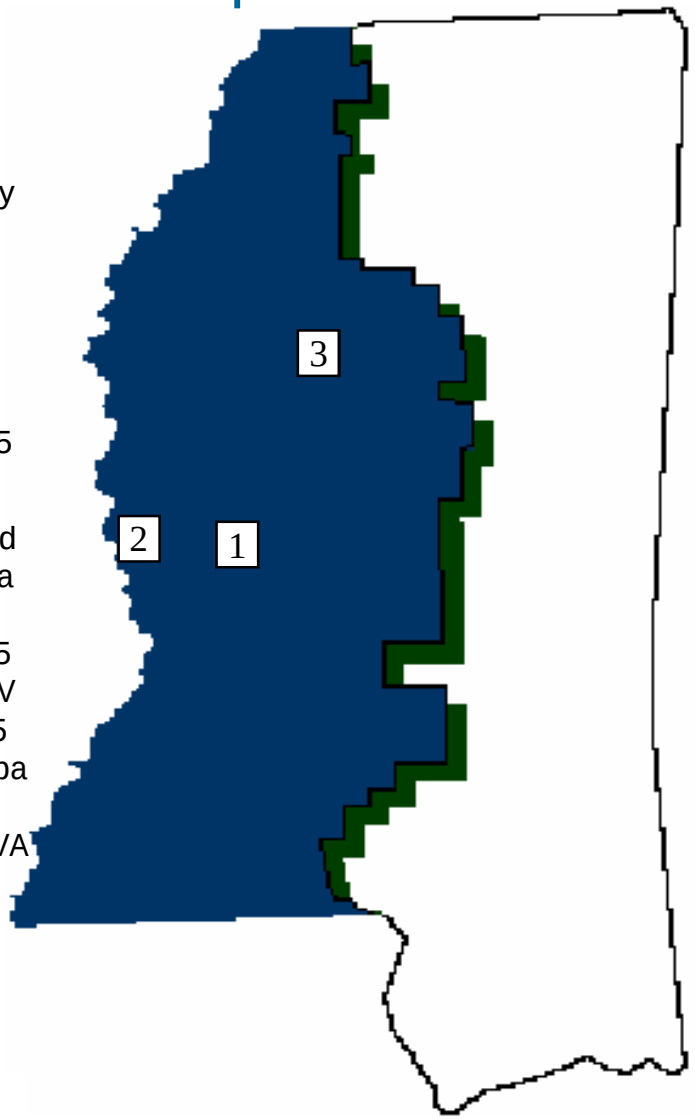
2013 – 2017 Construction Plan Update 1 Projects

2013-2017 EMI Construction Plan Update 1 Projects
Projects Complete in 2012 to date

1) Madison Ridgeland Reliability Improvement Project (Complete)

2) Ouachita Transmission Service: Move Sterlington 600 MVA auto to Baxter Wilson 500 (Second 500-115 kV auto) (Complete)

3) Grenada/Winona/Greenwood Area Improvement (Tillatoba auto alternative): Phase 2 Projects South Grenada 115 kV Substation: Install 230 kV Bus and a 400 MVA 230-115 kV Autotransformer. Tillatoba to South Grenada 230 kV Line: Construct New 520 MVA Line (Complete)



Entergy

2013-2017 EMI Construction Plan Update 1 Projects

1) Ray Braswell to West Jackson 115kV : Upgrade Line

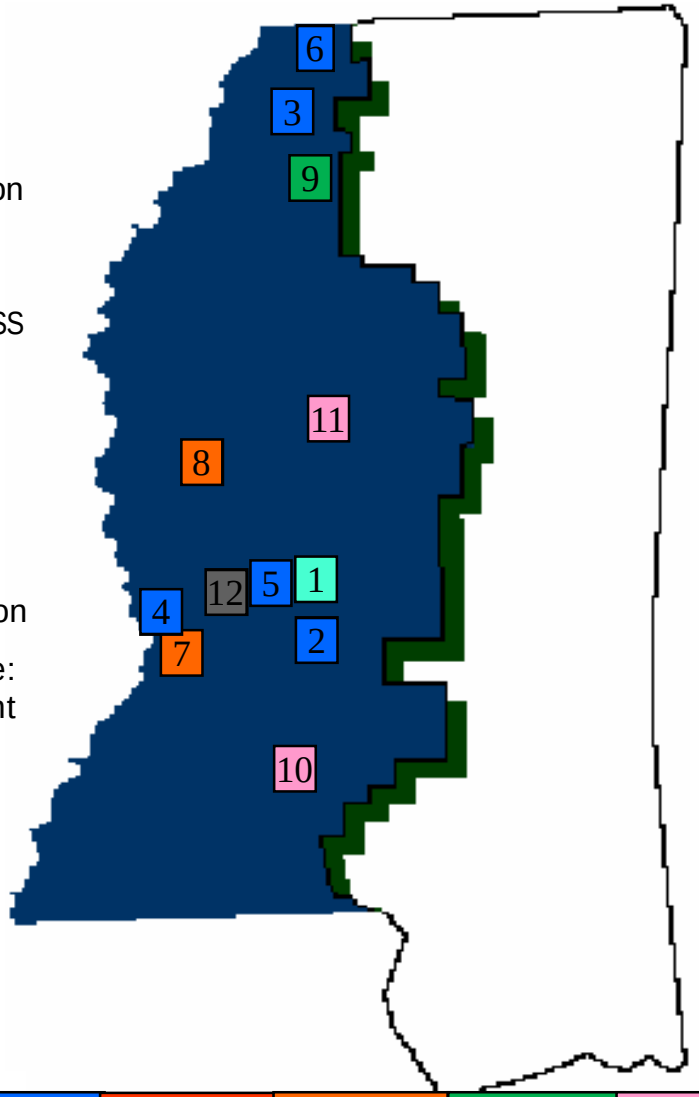
2) Ray Braswell to Wyndale: Construct 115 kV Line and SS

3) Church Road to Getwell: Construct 230kV line

4) Vicksburg to Baxter Wilson line 141: Upgrade CTs at Vicksburg

5) Add 115kV breakers at Bolton

6) SMEPA Transmission Service: Upgrade Terminal equipment at Horn Lake 115kV



7) Baxter Wilson to SE Vicksburg 115kV: Upgrade line

8) Hollandale and Belzoni: Install breakers

9) Getwell to Senatobia Industrial: Construct 230 kV line & Add Senatobia Industrial 230-115 kV Autotransformer

10) Franklin – McComb 115kV: Construct New Line and Upgrade all Substation Elements

11) Durant: Add Capacitor Bank

12) E. Vicksburg to Edwards 115kV: Upgrade Line

Entergy

Ray Braswell to West Jackson 115kV Line Upgrade

(11-EMI-004-CP)

Scenario:

- Ray Braswell to West Jackson 115 kV line section, between Clinton and Jackson overloads for the loss of 230-115 kV autotransformer at the South Jackson substation.

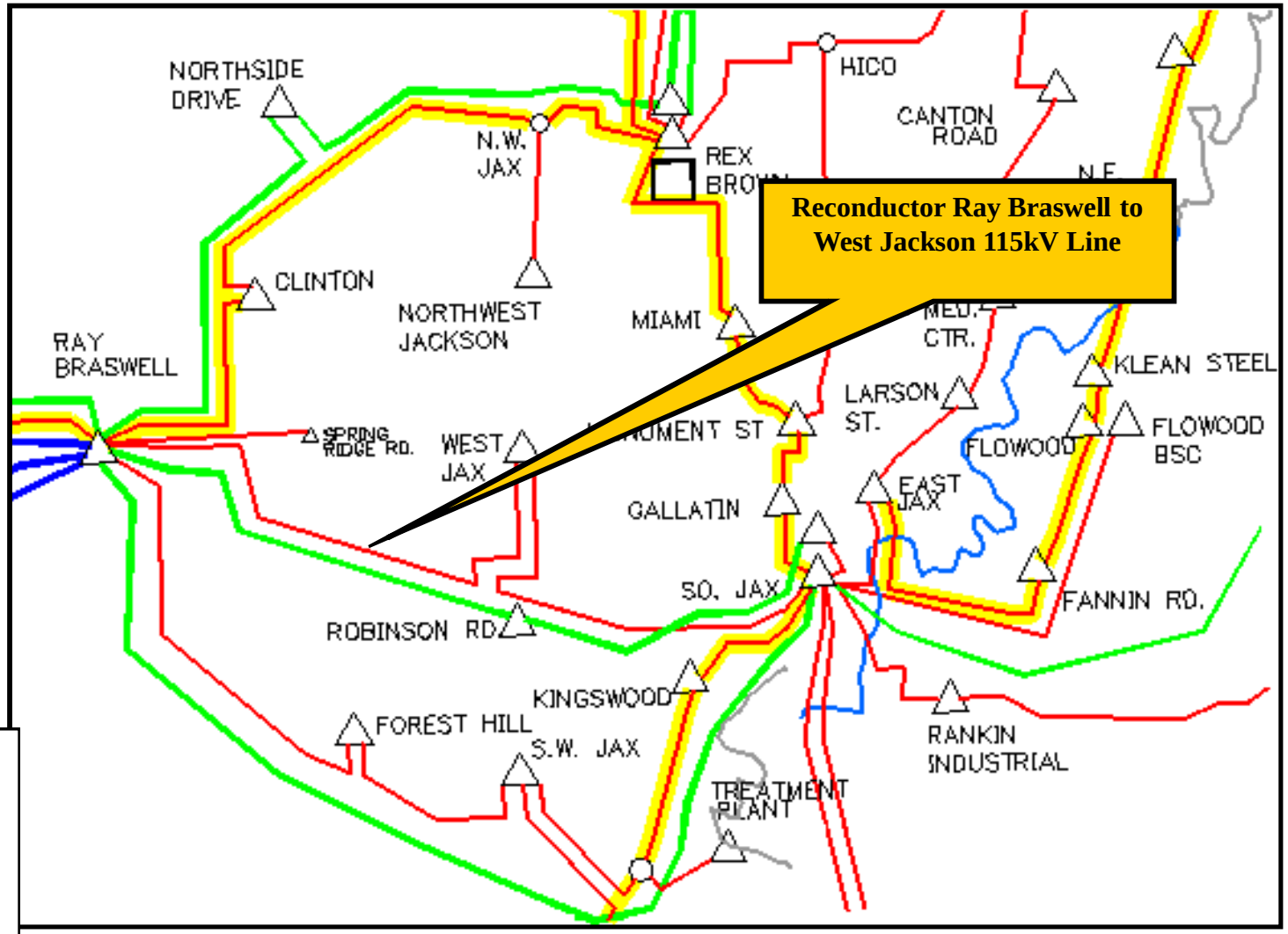
Recommended Solution:

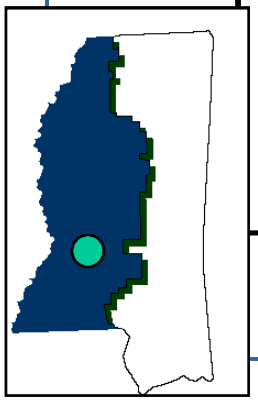
- Reconductor Ray Braswell to West Jackson 115 kV line section to obtain a rating of at least 260 MVA.

Proposed In Service Date: Summer 2012

Ray Braswell to West Jackson 115kV Line Upgrade

(11-EMI-004-CP)





Proposed In Service Date: Summer 2012

Ray Braswell to Wyndale 115 kV Line Construction

(10-EMI-017-CP)

Scenario:

- The SW Jackson to Byram to Brookhaven line is 53 miles long and serves 175 MW of projected load in 2011.
- The loss of the SW Jackson to Elton or Elton to Byram 115 kV lines will cause overload on the Brookhaven to Wesson to James Rd to Hazelhurst to Copiah SMEPA to Gallman to Crystal Springs 115kV line sections and under-voltages at several stations between Brookhaven and Terry .
- In addition, the loss of Brookhaven to Wesson or Wesson to James Rd overloads SW Jackson to Byram line.

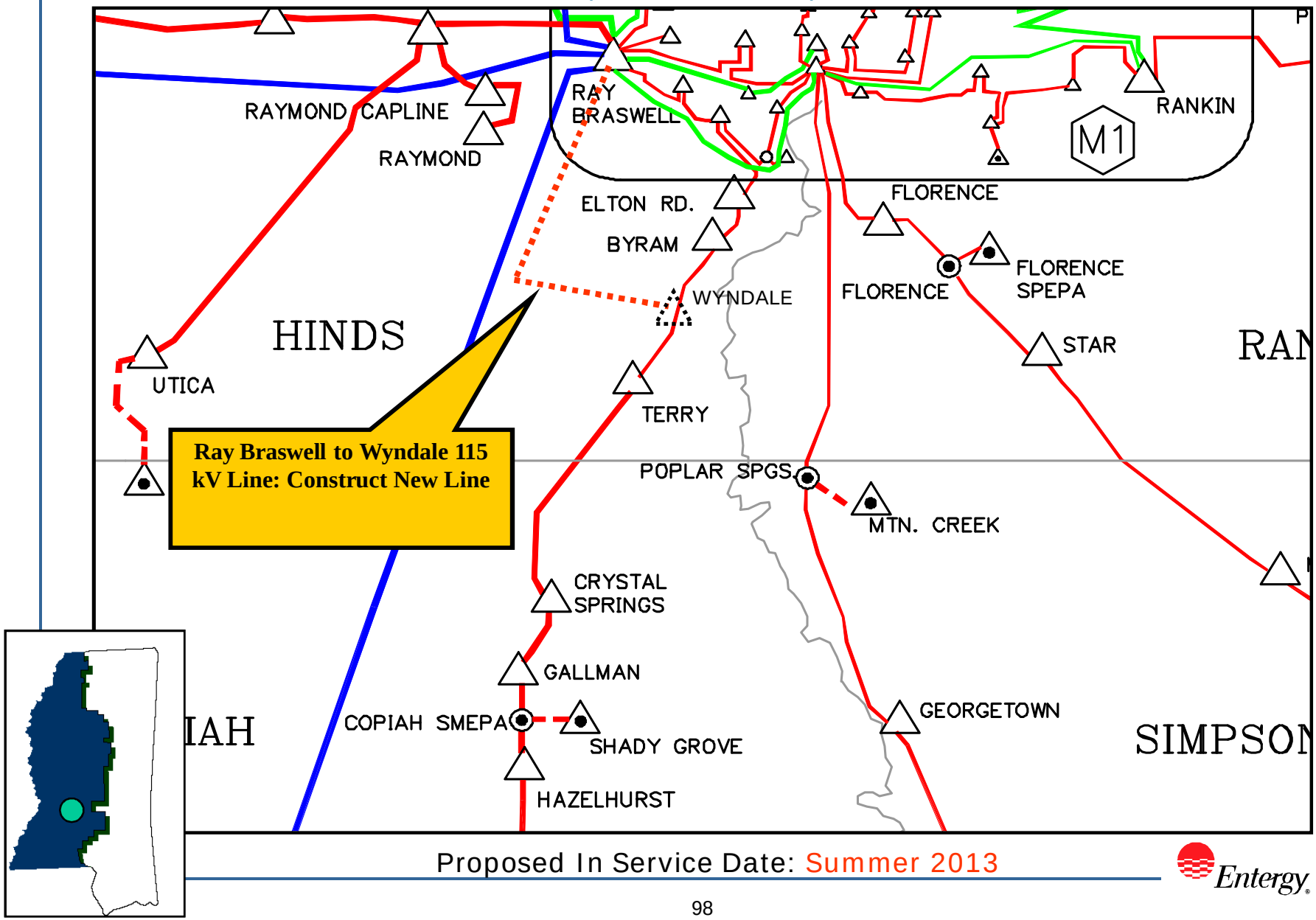
Recommended Solution:

- Construct a new Wyndale 115kV switching station tapping the section between Byram and Terry.
- Build a new 115kV line (constructed to 230kV specs) from Ray Braswell to Wyndale with a rating of at least 261 MVA.

Proposed In Service Date: Summer 2013

Ray Braswell to Wyndale 115 kV Line Construction

(10-EMI-017-CP)



Proposed In Service Date: Summer 2013

Church Road to Getwell 230 kV Line Construction

(10-EMI-018-CP)

Scenario:

- Horn Lake to Greenbrook 115 kV line section overloads for the loss of Horn Lake to Getwell 230 kV line.

- Horn Lake to TH Allen 161 kV line section overloads for the loss of Freeport to Horn Lake 230 kV line.

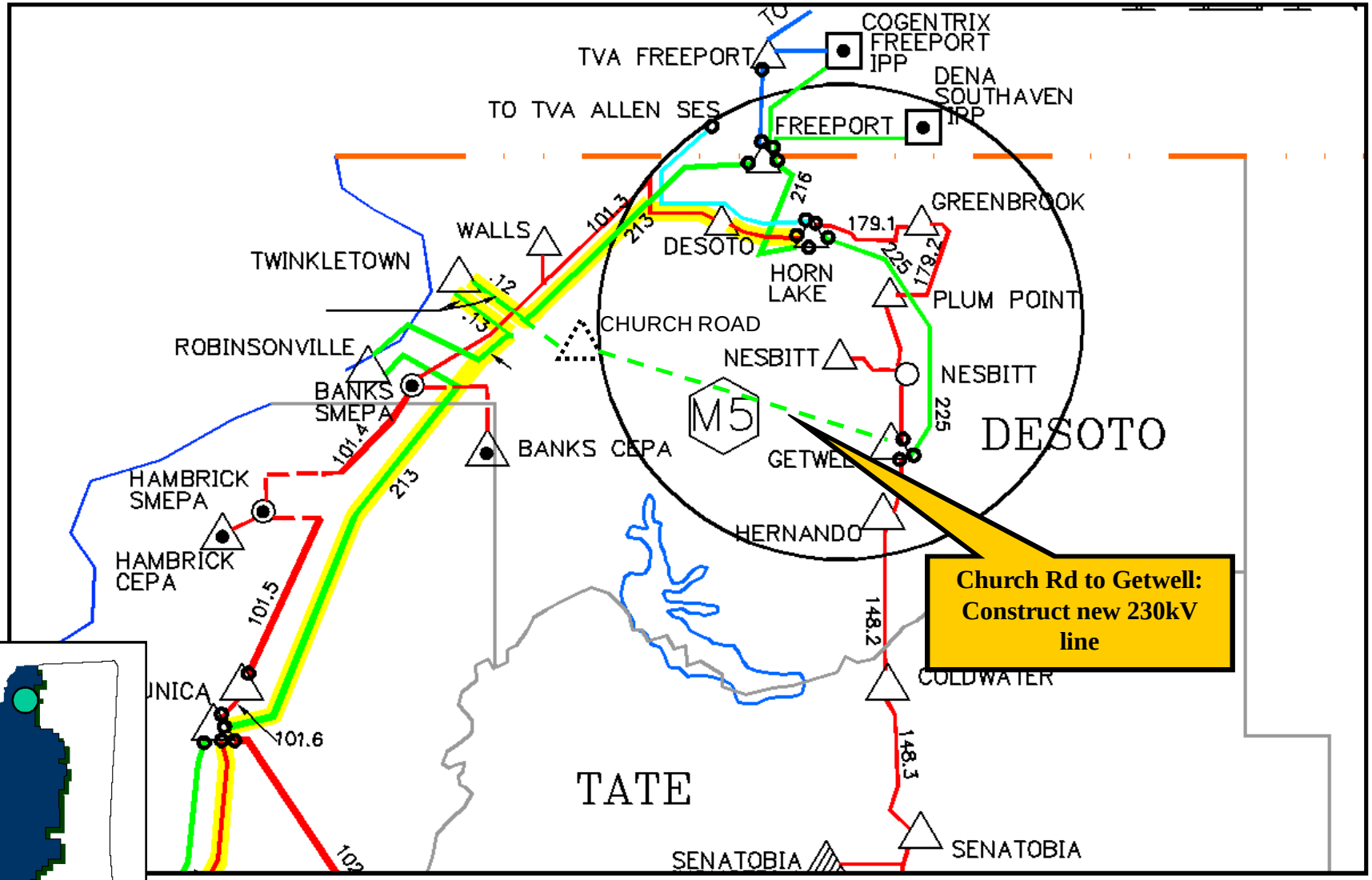
Recommended Solution:

- Construct a new 230 kV line from Getwell to Church Road with a rating of at least 500 MVA and close the normally open 230-161 kV autotransformer at Horn Lake.

Proposed In Service Date: Summer 2013

Church Road to Getwell 230 kV Line Construction

(10-EMI-018-CP)



Proposed In Service Date: Summer 2013

Vicksburg to Baxter Wilson (line 141): Upgrade CT's at Vicksburg

(13-EMI-001-CP)

Scenario:

- Vicksburg to Baxter Wilson 115 kV (line 141) overloads for the loss of Baxter Wilson to Spencer Potash 115kV.

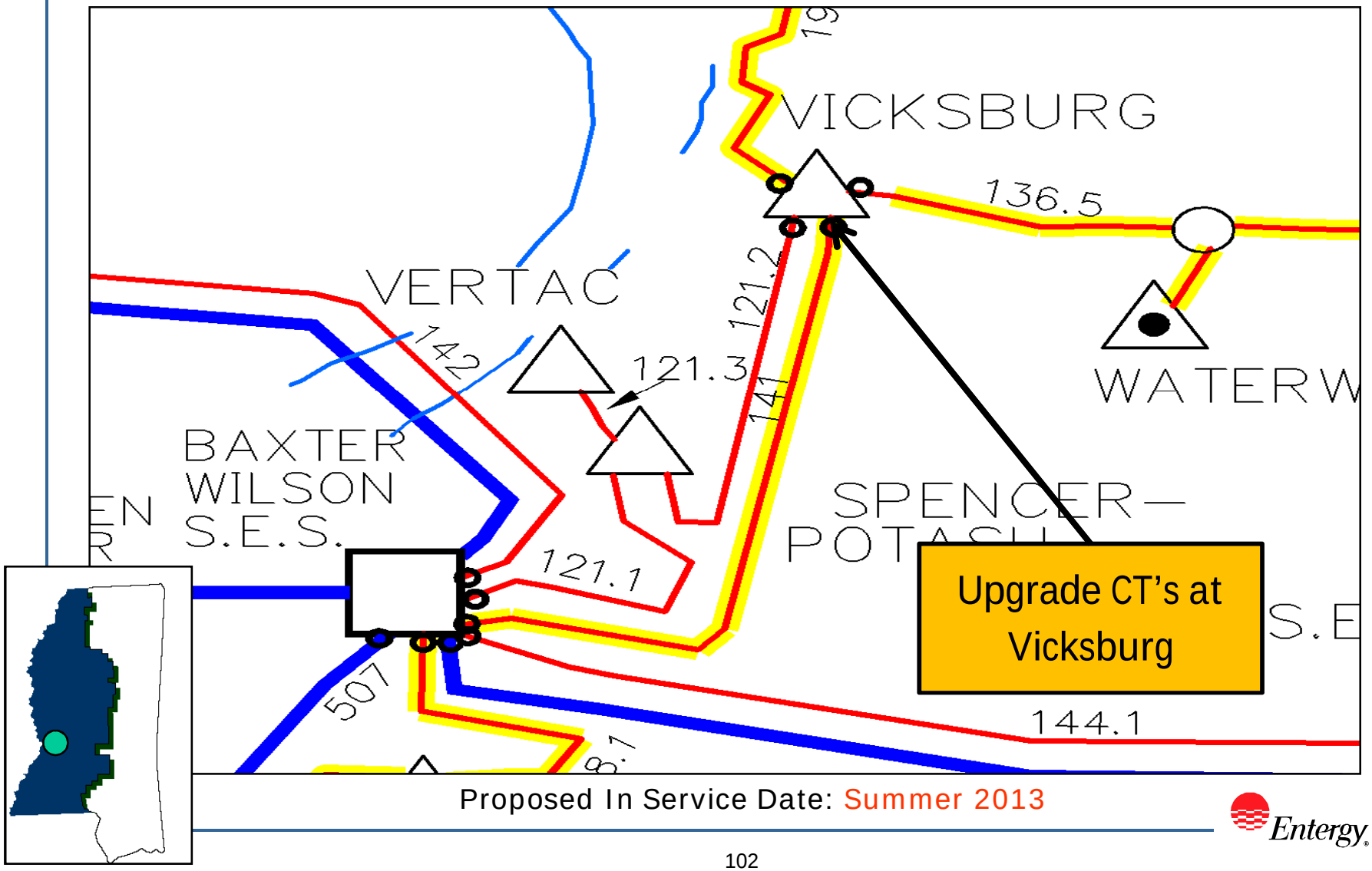
Recommended Solution:

- Upgrade CT's at Vicksburg to obtain a rating of at least 319 MVA.

Proposed In Service Date: Summer 2013

Vicksburg to Baxter Wilson (line 141): Upgrade CT's at Vicksburg

(13-EMI-001-CP)



Proposed In Service Date: Summer 2013

SMEPA Plum Point Transmission Service: Upgrade Station equipment at Horn Lake 115kV

(13-EMI-004-CP)

Scenario:

- SMEPA has confirmed transmission service out of Plum Point beginning 6/1/2013.

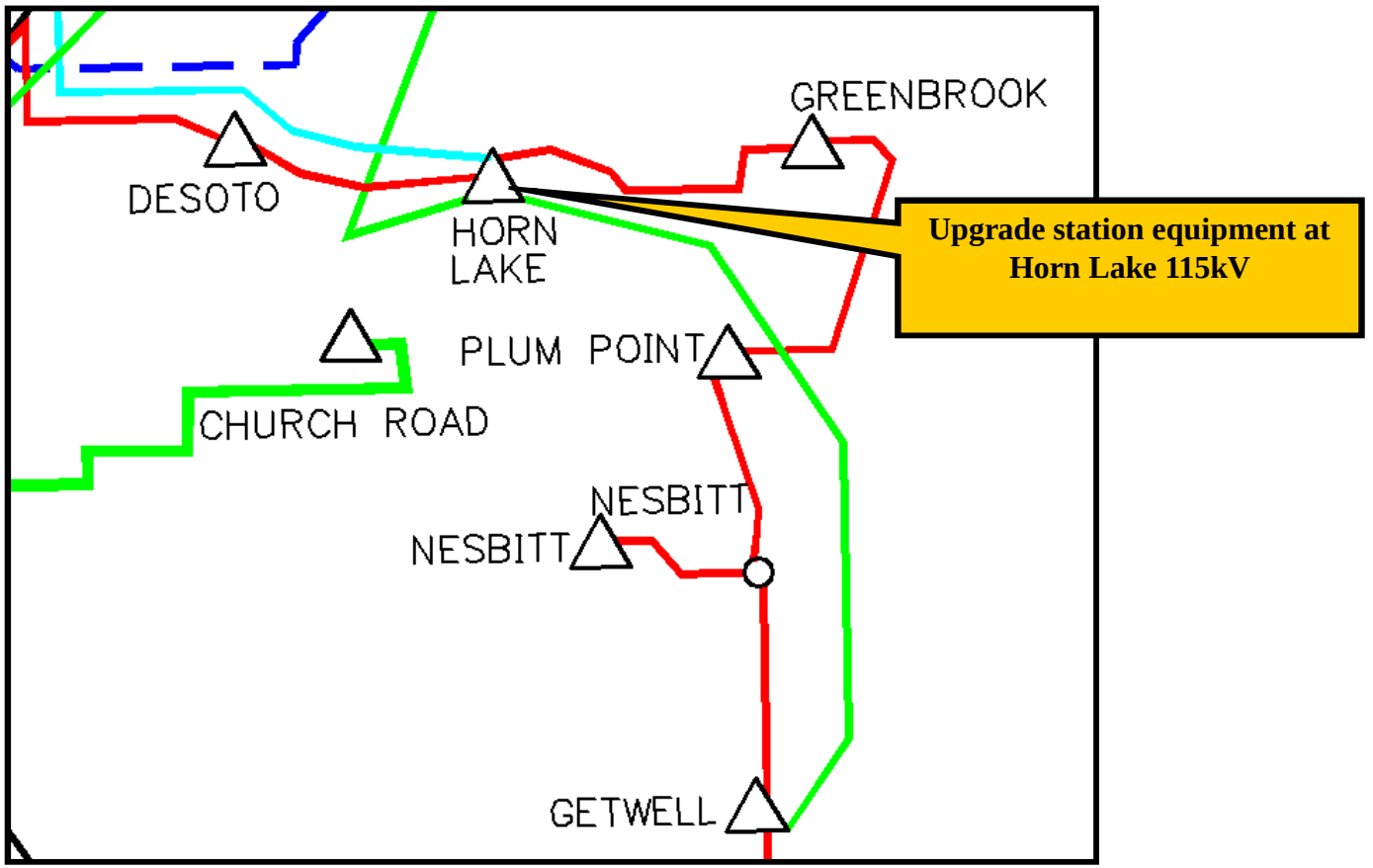
Recommended Solution:

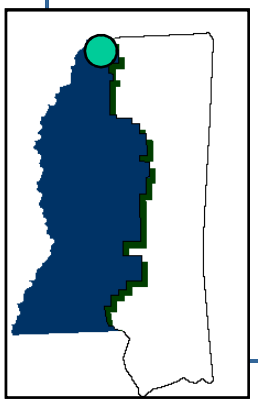
- Upgrade station equipment at Horn Lake to a minimum of 226MVA.

Proposed In Service Date: Summer 2013

SMEPA Plum Point Transmission Service: Upgrade Station equipment at Horn Lake 115kV

(13-EMI-004-CP)





Add 115kV breakers at Bolton

(13-EMI-006-CP)

Scenario:

- The Vicksburg to Ray Braswell 115kV is approximately 30 miles long and serves around 15,000 customers. It also has 2 taps at the Bolton substation creating a 4 terminal line.

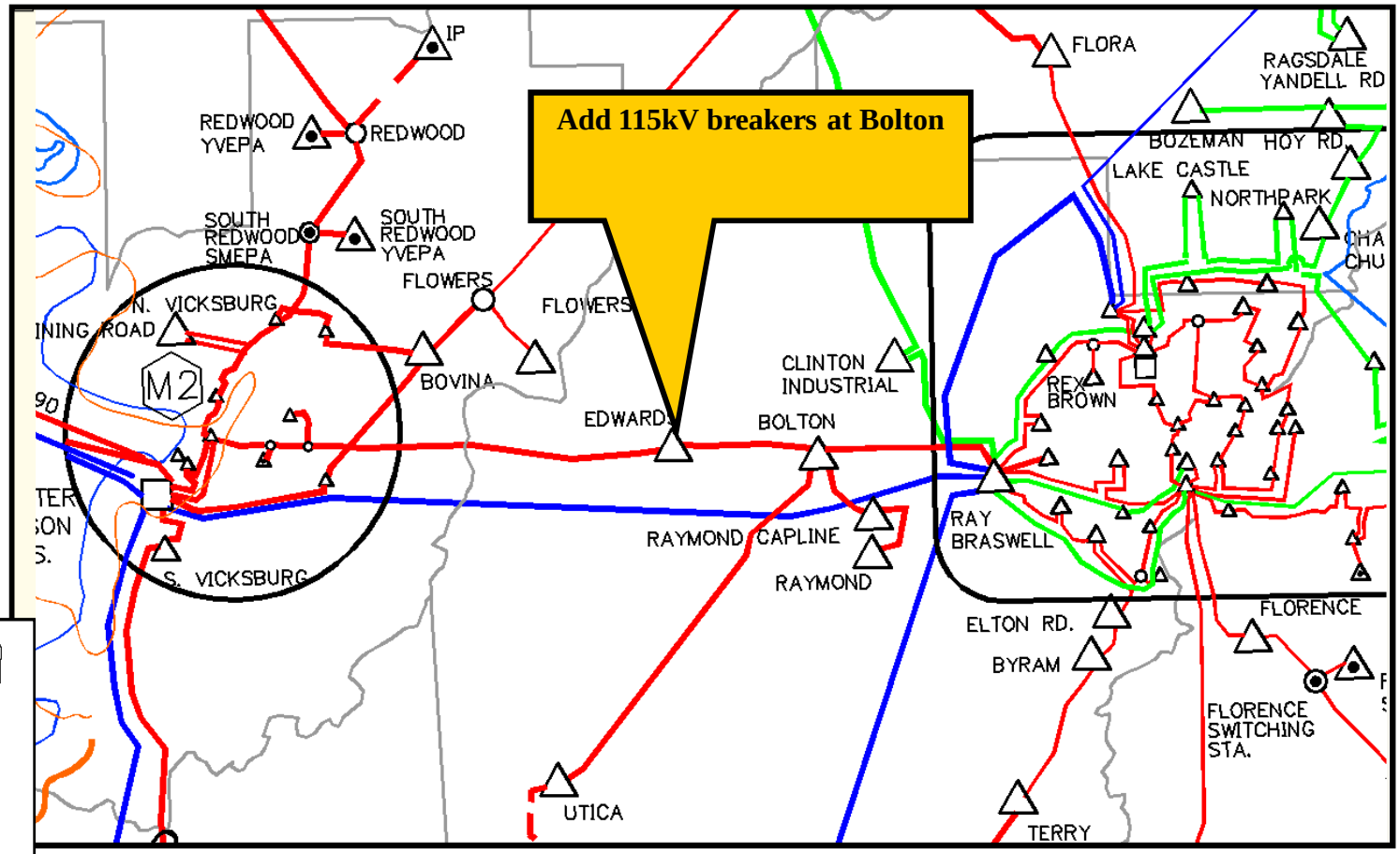
Recommended Solution:

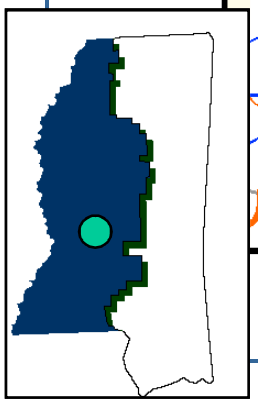
- Install breakers at Bolton 115kV substation for enhanced transmission reliability.

Proposed In Service Date: Summer 2013

Add 115kV breakers at Bolton

(13-EMI-006-CP)





Upgrade Baxter Wilson-SE Vicksburg 115kV

11-EMI-002-CP

Scenario:

- The Baxter Wilson-SE Vicksburg 115kV overloads for the loss of the Vicksburg-W. Vicksburg 115kV

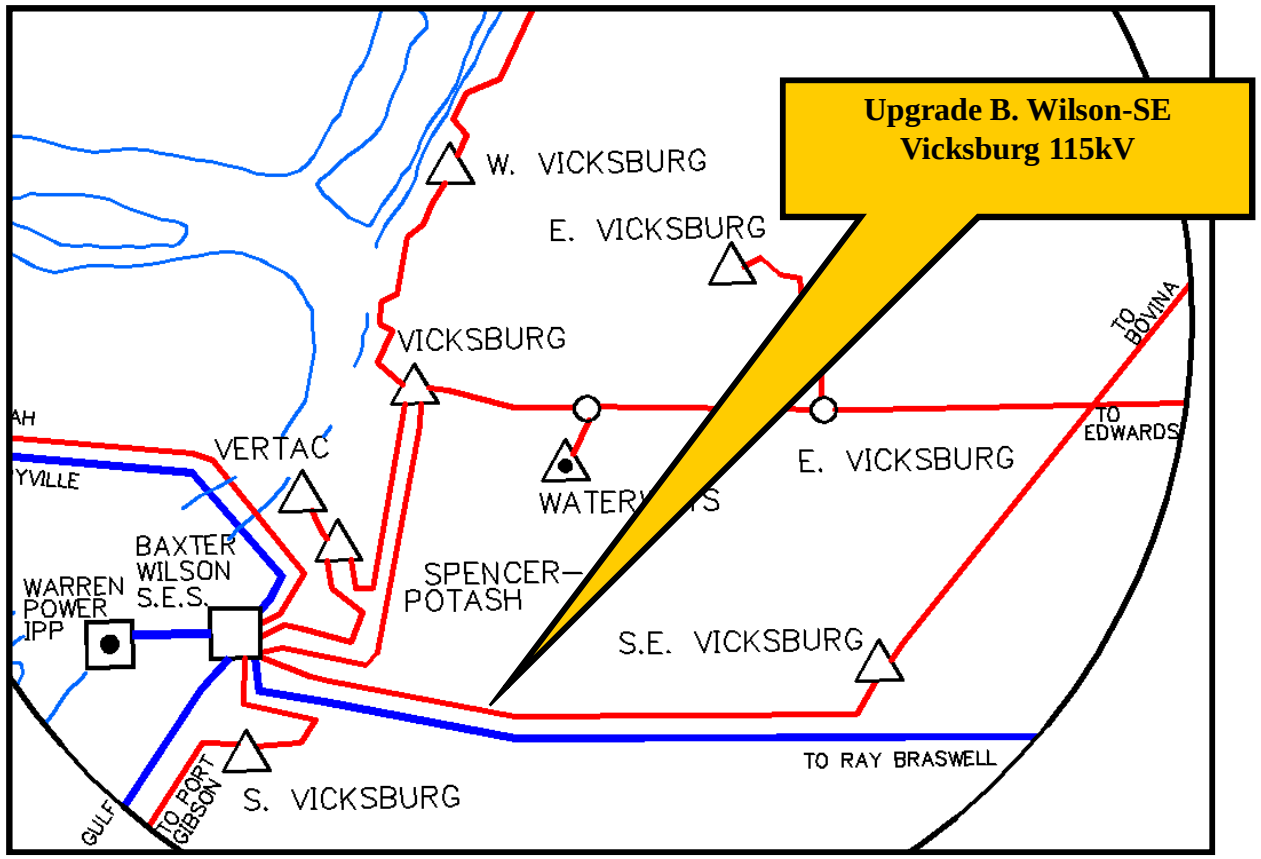
Recommended Solution:

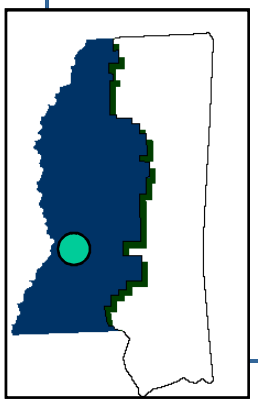
- Reconductor Baxter Wilson-SE Vicksburg 115kV and upgrade station equipment to obtain a rating of at least 259MVA.

Proposed In Service Date: Summer 2015

Upgrade Baxter Wilson-SE Vicksburg 115kV

11-EMI-002-CP





Proposed In Service Date: Summer 2015

Hollandale and Belzoni: Install breakers

11-EMI-007-CP

Scenario:

- The Onward-Rolling Fork 115kV section overloads for the loss of the Gerald Andrus 230/115kV auto.
- The Greenville-SE Greenville 115kV overloads for the loss of N. Vicksburg - S. Redwood 115kV.
- Low voltages at Redwood SS and S. Redwood are also present for the loss of N. Vicksburg - S. Redwood 115kV.

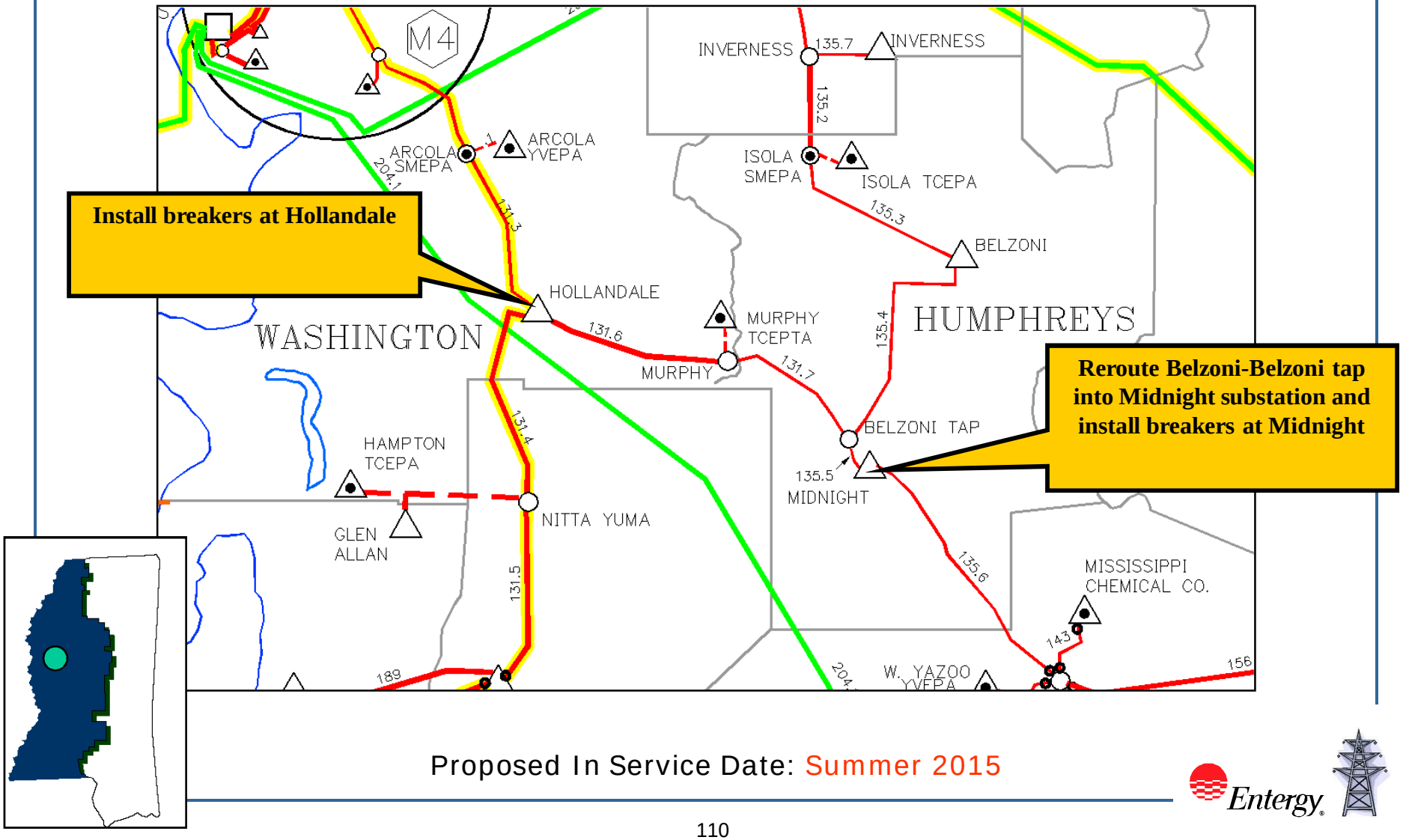
Recommended Solution:

- Install breakers at Hollandale and Midnight to close normally open point between Murphy SS and Belzoni tap point. Also build ~1.7 miles of double circuit 115kV from Belzoni tap-Midnight 115kV to add breakers at Midnight.

Proposed In Service Date: Summer 2015

Hollandale and Belzoni: Install breakers

11-EMI-007-CP



Proposed In Service Date: Summer 2015

Getwell to Senatobia Industrial 230kV Line Construction and 230/115kV Auto

12-EMI-002-1-CP AND 12-EMI-002-2-CP

Scenario:

- The Horn Lake to Greenbrook 115kV section overloads FTLO 230/115kV Auto at Getwell.
- The Getwell-Hernando 115kV overloads FTLO the Batesville-Sardis 115kV
- The Batesville-Sardis 115kV overloads FTLO the Getwell-Hernando 115kV.

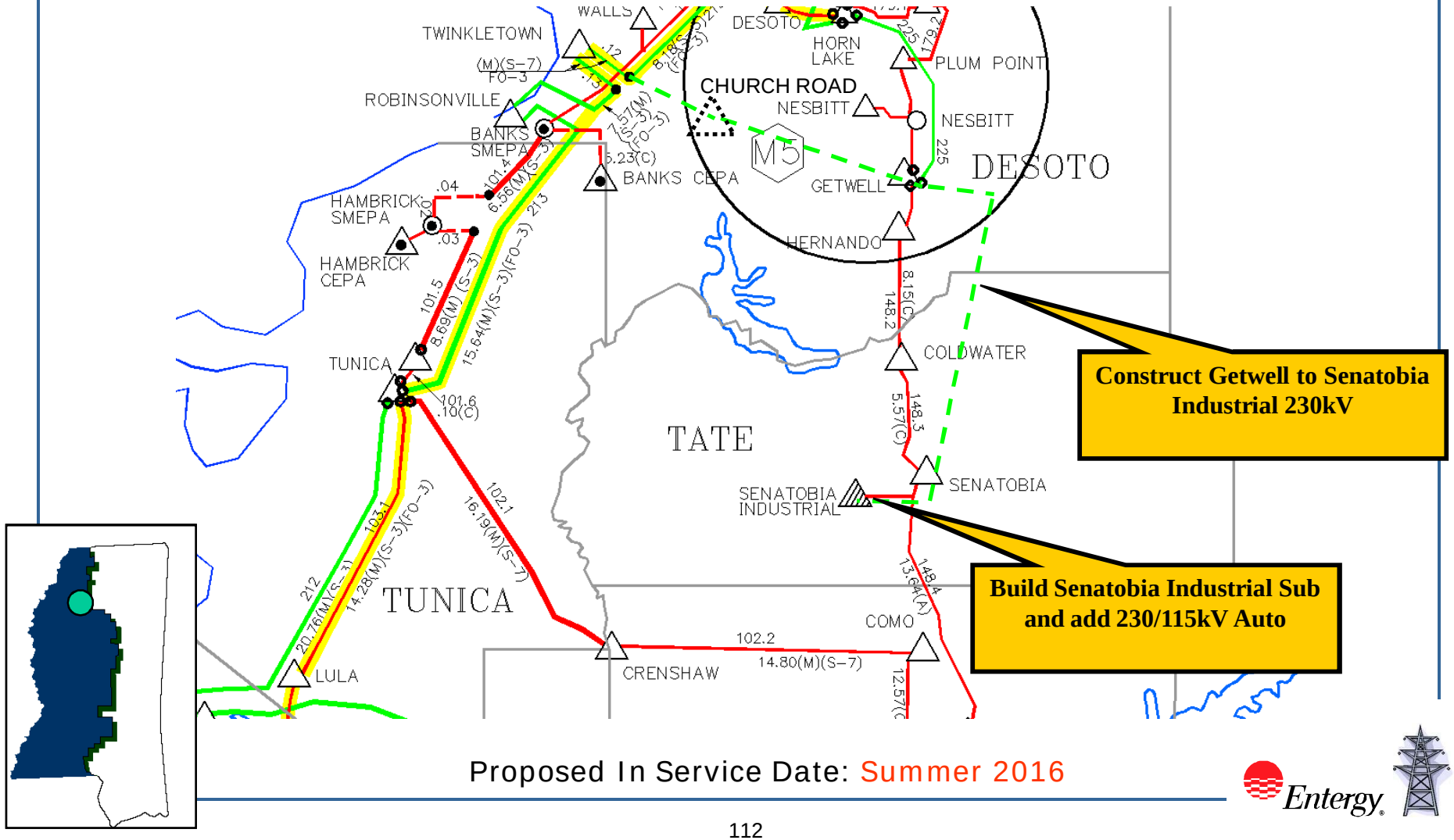
Recommended Solution:

- Construct a new Senatobia Industrial Substation and cut in the Senatobia to Sardis 115kV line.
- Add a new 230/115kV Autotransformer at Senatobia Industrial.
- Construct a new 230kV line from Getwell to the new Senatobia Industrial substation that routes past the future Byhalia Rd. 230kV distribution station.

Proposed In Service Date: Summer 2016

Getwell to Senatobia Industrial 230kV Line Construction and 230/115kV Auto

12-EMI-002-1-CP AND 12-EMI-002-2-CP



Proposed In Service Date: Summer 2016

Build Franklin-McComb 115kV line

12-EMI-001-CP

Scenario:

- The Franklin-S. Brookhaven 115kV overloads FTLO of Franklin-Vaughn 115kV
- Various 115kV sections in S. Mississippi overload for a breaker failure at Franklin 500kV that takes out the Franklin-McKnight and Franklin-Adams Creek 500kV

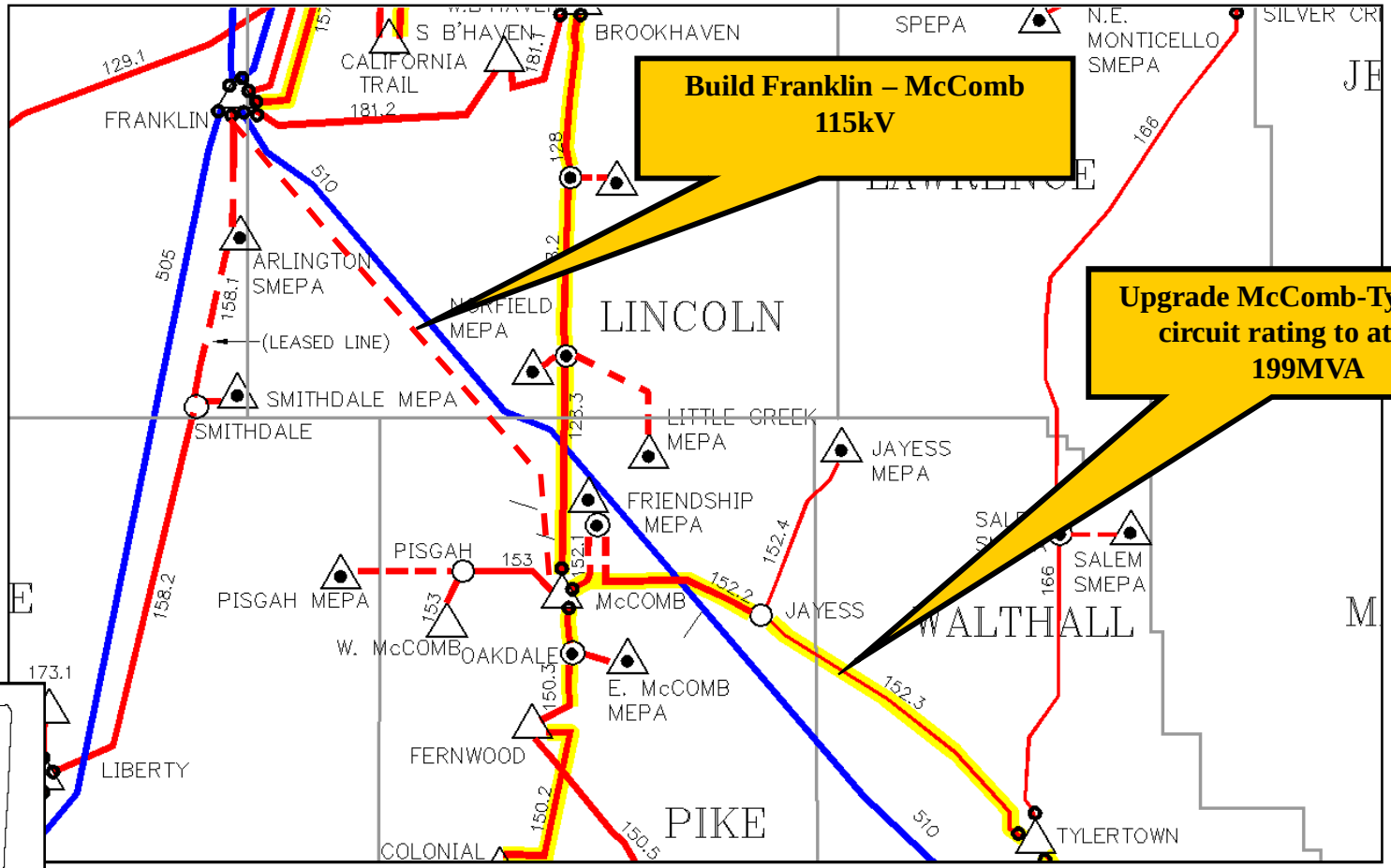
Recommended Solution:

- Construct a new 115kV(built to 230kV specifications) line from Franklin-McComb with a rating of at least 398MVA.
- Upgrade the McComb-Tylertown 115kV circuit to at least 199MVA (requires replacing CTs at McComb and Tylertown and ensuring no other elements will limit circuit below 1000A)

Proposed In Service Date: Summer 2017

Build Franklin-McComb 115kV line

12-EMI-001-CP



Proposed In Service Date: Summer 2017

Durant: Add capacitor Bank

13-EMI-002-CP

Scenario:

- Low voltage conditions exist at Durant, Bowling Green, Lexington and Acona 115kV stations for the loss of Pickens to Durant 115kV.

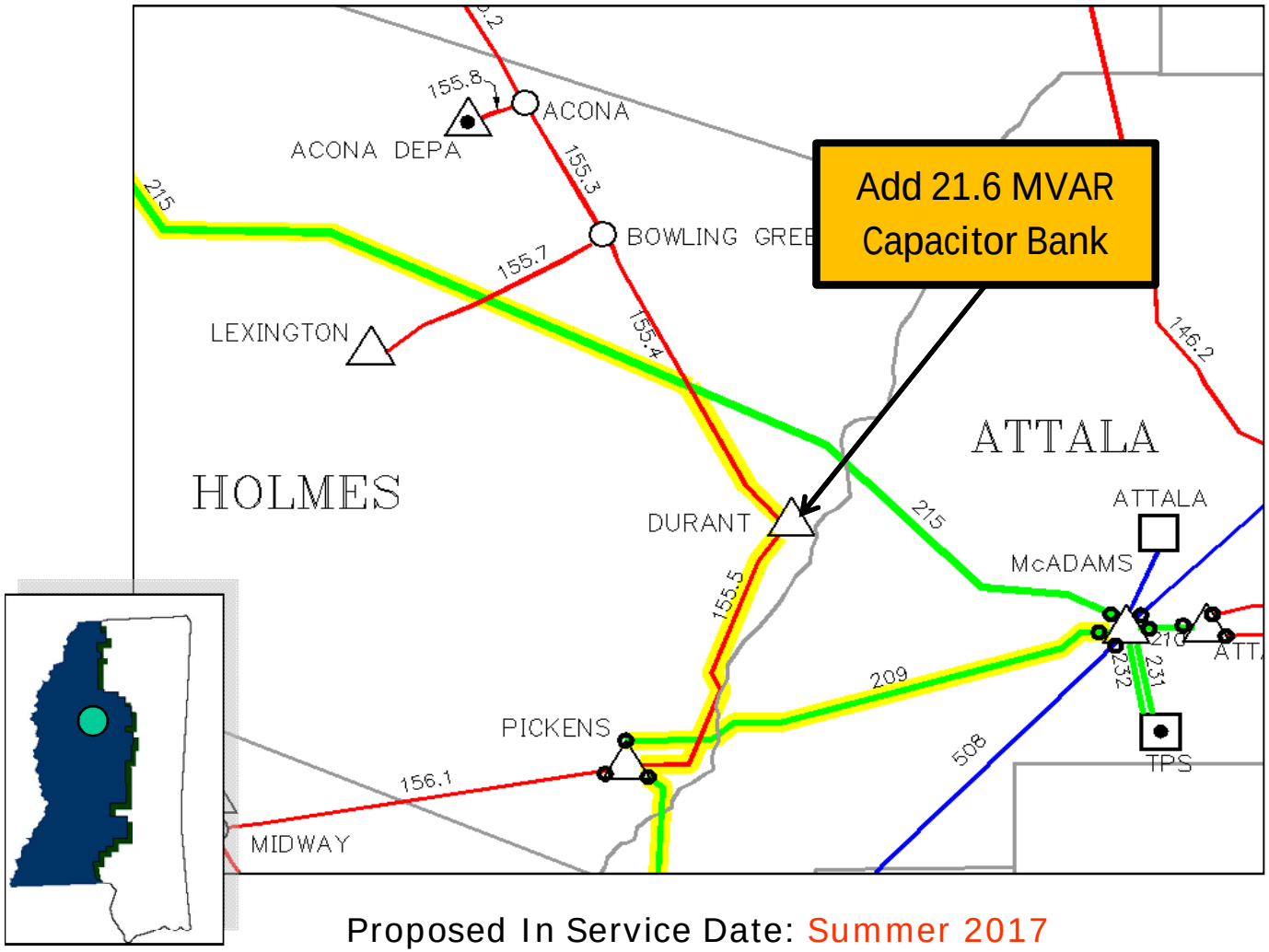
Recommended Solution:

- Add a 21.6 MVAR capacitor bank at Durant 115 kV

Proposed In Service Date: Summer 2017

Durant: Add capacitor Bank

13-EMI-002-CP



Proposed In Service Date: Summer 2017

East Vicksburg to Edwards 115 kV Line Upgrade

11-EMI-006-CP

Scenario:

- The East Vicksburg to Edwards 115 kV line overloads FTLO Baxter Wilson to Ray Braswell 500 kV
- A breaker failure resulting in the loss of the Baxter Wilson-Perryville 500kV and Baxter Wilson-Ray Braswell 500kV overloads the East Vicksburg to Edwards 115kV line.

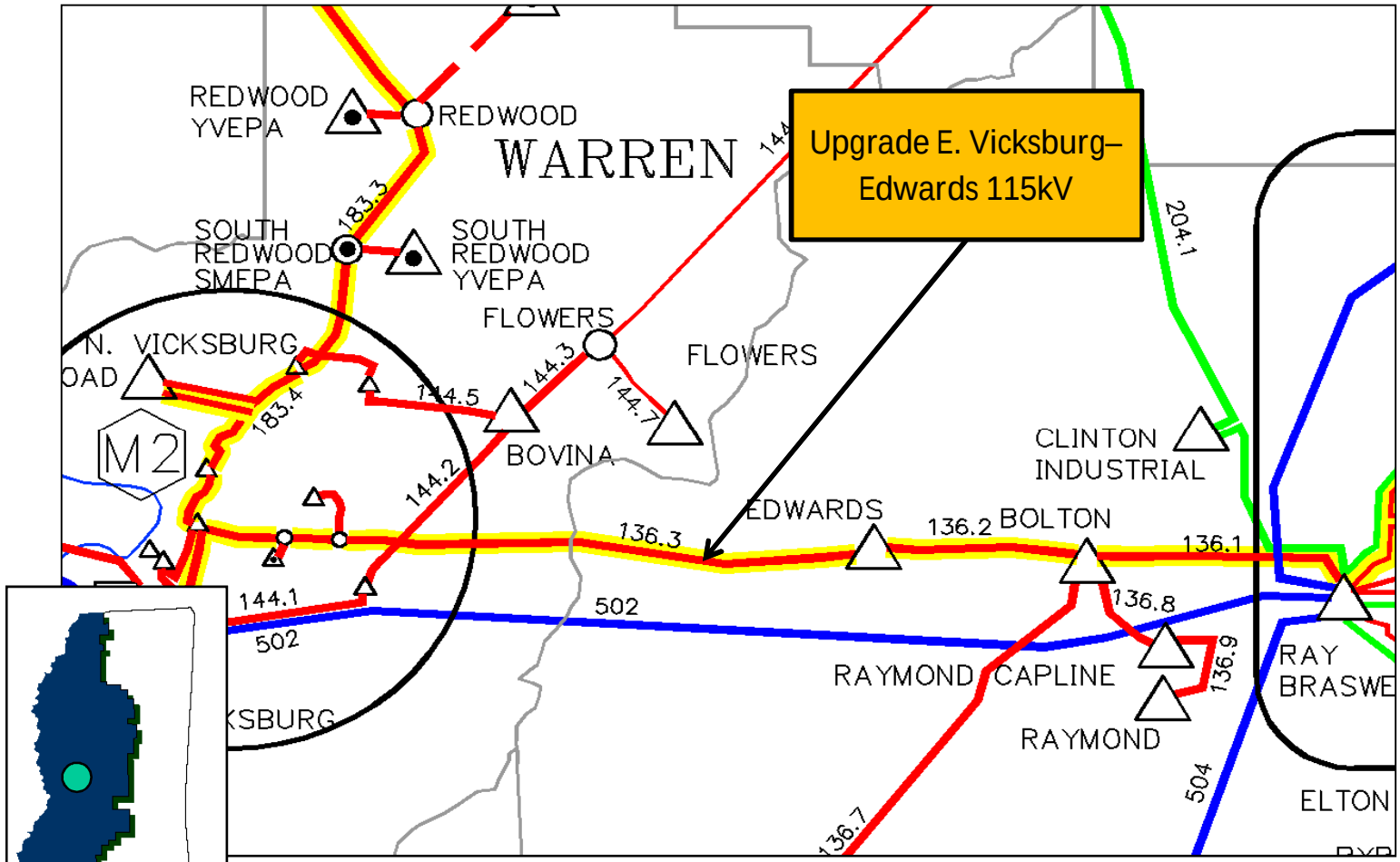
Recommended Solution:

- Upgrade East Vicksburg – Edwards 115 kV line to a minimum of 259 MVA
- Ensure that no element at both stations is rated below 259 MVA

Propose In Service Date: Summer 2018

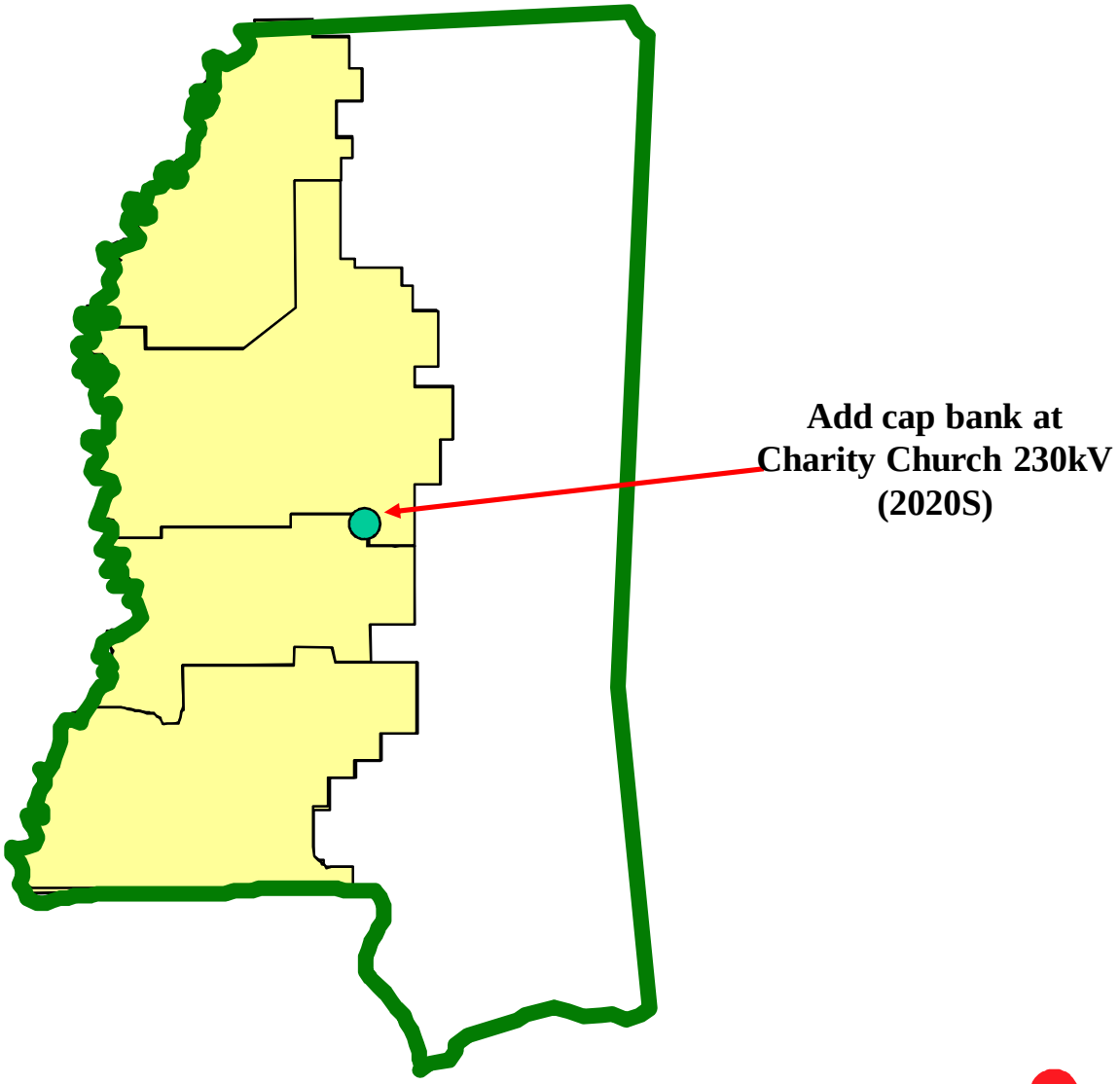
East Vicksburg to Edwards 115 kV Line Upgrade

11-EMI-006-CP



Proposed In Service Date: Summer 2018

EMI Transmission System Horizon Projects 2018 and Beyond



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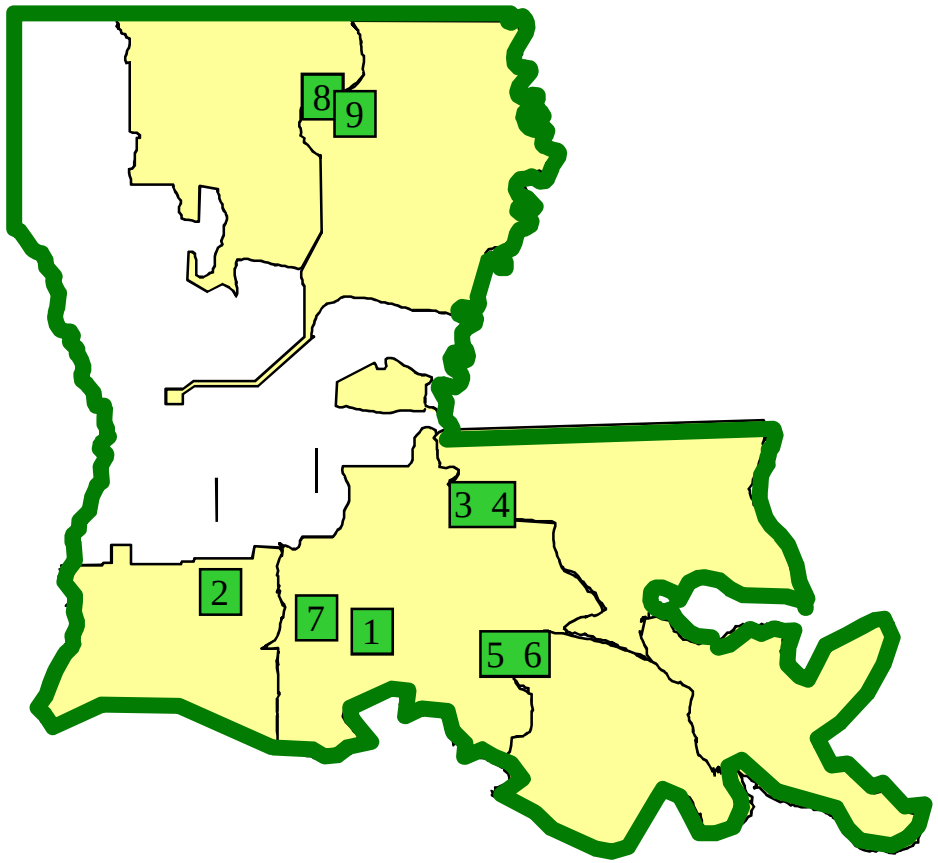
Entergy New Orleans, Inc.
Entergy Gulf States Louisiana, L.L.C.

2013 – 2017 Draft Construction Plan Update 1 Projects

2013 – 2017 Draft Construction Plan Update 1
Projects Completed in 2012 to date

1) Acadiana Area Improvement Project-Phase 2- Construct new Labbe to Sellers road 230 kV line (complete)
2) Construct new Nelson to Moss Bluff 230 kV line (complete)
3) Tejac to Marydale 69 kV line upgrade (complete)
4) Jackson to Tejac 69 kV line upgrade (complete)
5) Fireco to Copol 69 kV line : Upgrade switches and line trap (complete)
6) Addis 69 kV substation : Upgrade 69 kV switches and line trap(complete)
7) Acadia Generation – Reconfigure 138 kV substation (Upgrade ckts 3 and 4 also Richard relaying work) (complete)
8) Ouachita Transmission Service –Split Sterlington 115 kV bus and replace 500-115 Auto #2 with 750MVA (complete)
9) Ouachita Transmission Service –Upgrade Walnut Grove to Swartz 115 kV line (complete)



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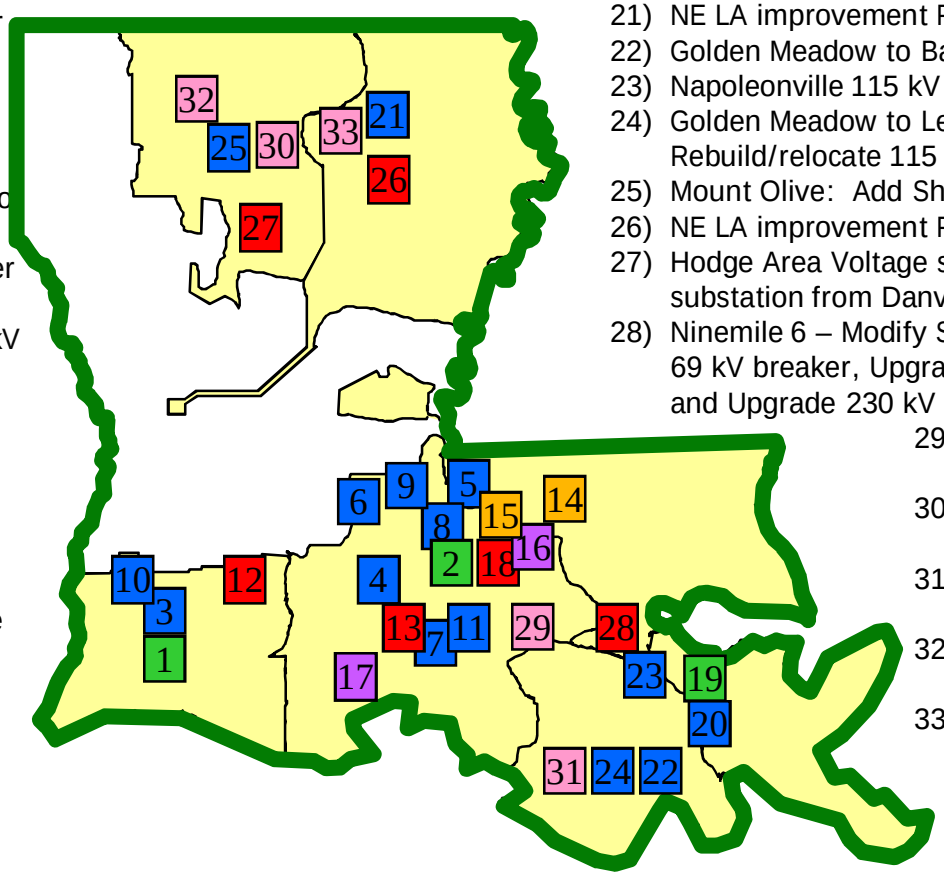
2013 – 2017 Draft Construction Plan Update 1
Projects – Louisiana

1) Lake Charles Bulk Substation - Replace Station Equipment
2) Fireco to Copol – 69 kV Line Upgrade
3) Mossville – Cut-in Nelson to Carlyss into Mossville
4) Bloomfield to Bosco 138 kV line – Construct new line
5) Francis – Add 69 kV Capacitor Bank
6) Acadiana Generation – Reconfigure Richard 138 kV Substation
7) Acadiana Generation – Moril to Hopkins 138 kV line Upgrade
8) Acadiana Generation – Breaker Upgrade at Scott 18220
9) Champagne to Plaisance 138kV –Upgrade Equipment
10) Mossville to Canal –Phase 1: Upgrade 69 kV Line
11) Willow Glen to Conway – Construct new 230 kV line
12) Mossville to Canal – Phase2 : Upgrade 69 kV Line
13) Copol to Bourbeaux –Upgrade 69 kV line
14) Bronco – New 230 kV Distribution Substation
15) McManus to Brady Heights – Upgrade 69 kV line
16) Harleson to Gloria –Upgrade 69 kV Line



17) Five Points to Line Tap 281 to line 247 Tap - Upgrade 69 kV line
18) Sorrento Upgrade138-115 kV Auto and upgrade Gonzales –Sorrento 138 kV Line
19) Southeast LA Coastal Improvement Plan: Phase 2
20) Southeast LA Coastal Improvement Plan: Phase 3
21) NE LA improvement Project phase 1
22) Golden Meadow to Barataria: Upgrade switch
23) Napoleonville 115 kV substation Capacitor Bank
24) Golden Meadow to Leeville 115 kV - Rebuild/relocate 115 kV transmission line
25) Mount Olive: Add Shunt Reactor
26) NE LA improvement Project phase 2
27) Hodge Area Voltage support: Source Jonesboro substation from Danville
28) Ninemile 6 – Modify Switchyard, Upgrade Michoud 69 kV breaker, Upgrade 230 kV Southport line 1, and Upgrade 230 kV Southport line 2
29) Ironman to Tezcuco 230 kV Line
30) Mount Olive to Arcadia Phase 1 – Breaker
31) Valentine to Clovelly 115 kV Upgrade
32) Minden area Improvement project
33) NE Louisiana Improvement Project: Phase 3

2012 ISD	2013 ISD	2014 ISD	2015 ISD	2016 ISD	2017 ISD	2018 ISD

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Entergy Louisiana, LLC

North

NE Louisiana Improvement Project
Phases 1-3

11-ELL-003-1-CP ,11-ELL-003-2-CP, 11-ELL-004-CP

Scenario:

- The loss of Tallulah to Delhi results in the overload of Sterlington to Oak Ridge
- The loss of Sterlington to Oak Ridge results in the overload of Tallulah to Delhi and low voltages at several buses in the area

Proposed Solution:

- Phase 1 – Summer 2013
  - Construct a new 230 kV line (operate at 115 kV) from Swartz to Oak Ridge
  - Operate existing 115 kV line from Sterlington to Oak Ridge as “normally open”
- Phase 2 – Summer 2014
  - Construct double circuit 230/115kV line (operate both sides at 115kV) from Oak Ridge to new Dunn 115 kV Station
- Phase 3 – Summer 2015
  - Rebuild existing Sterlington-Oak Ridge 115kV

Proposed In-Service Date: Summer 2013, Summer 2014, Summer 2015

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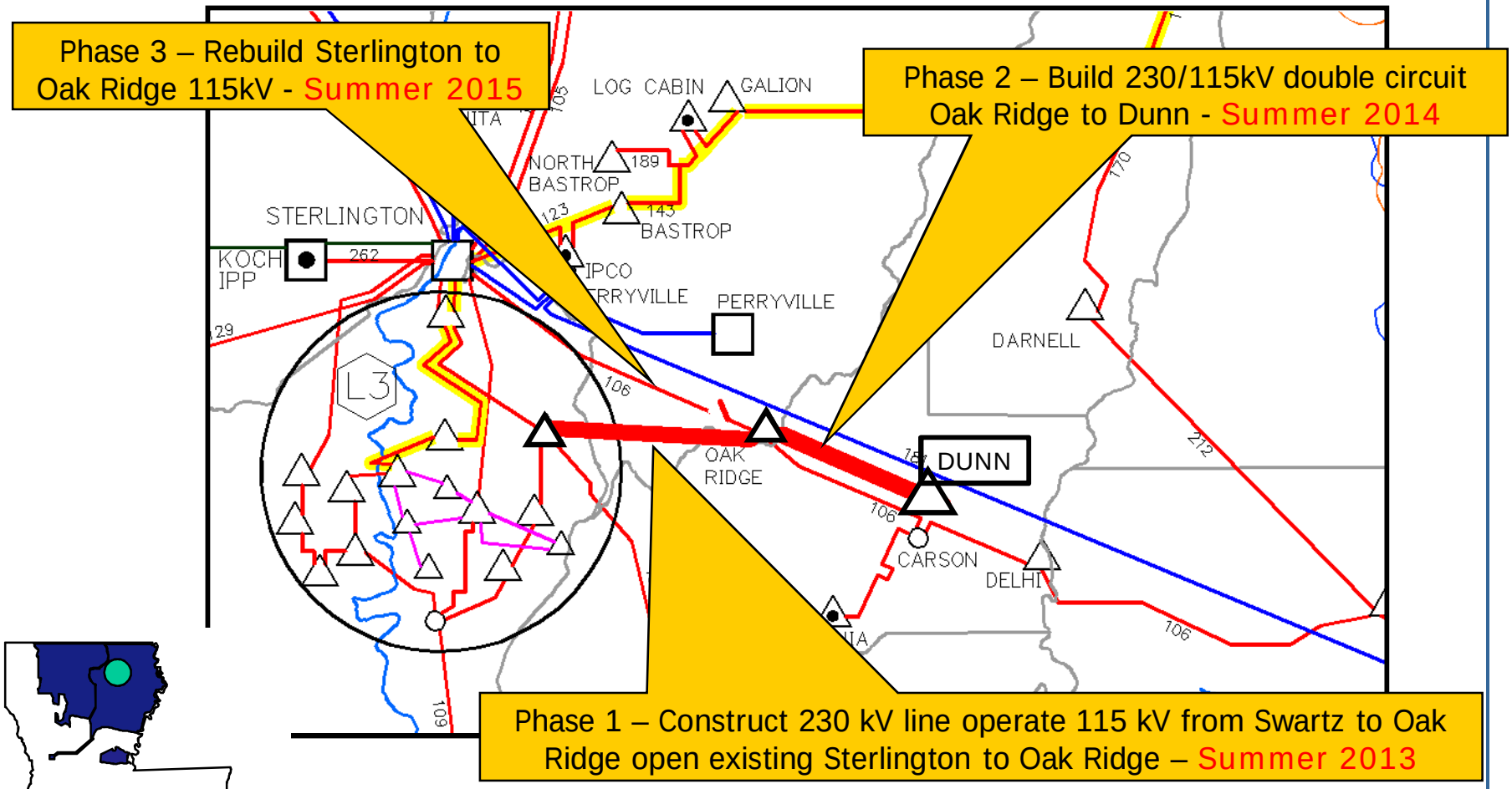
NE Louisiana Improvement Project
Phases 1-3

11-ELL-003-1-CP ,11-ELL-003-2-CP, 11-ELL-004-CP



Proposed ISD: Summer 2013, Summer 2014, Summer 2015

Mount Olive – Add Shunt Reactor

11-ELL-002-CP

Scenario:

- The loss of the Mount Olive to El Dorado 500 kV line results in high voltage at Mount Olive 500 kV switching station.

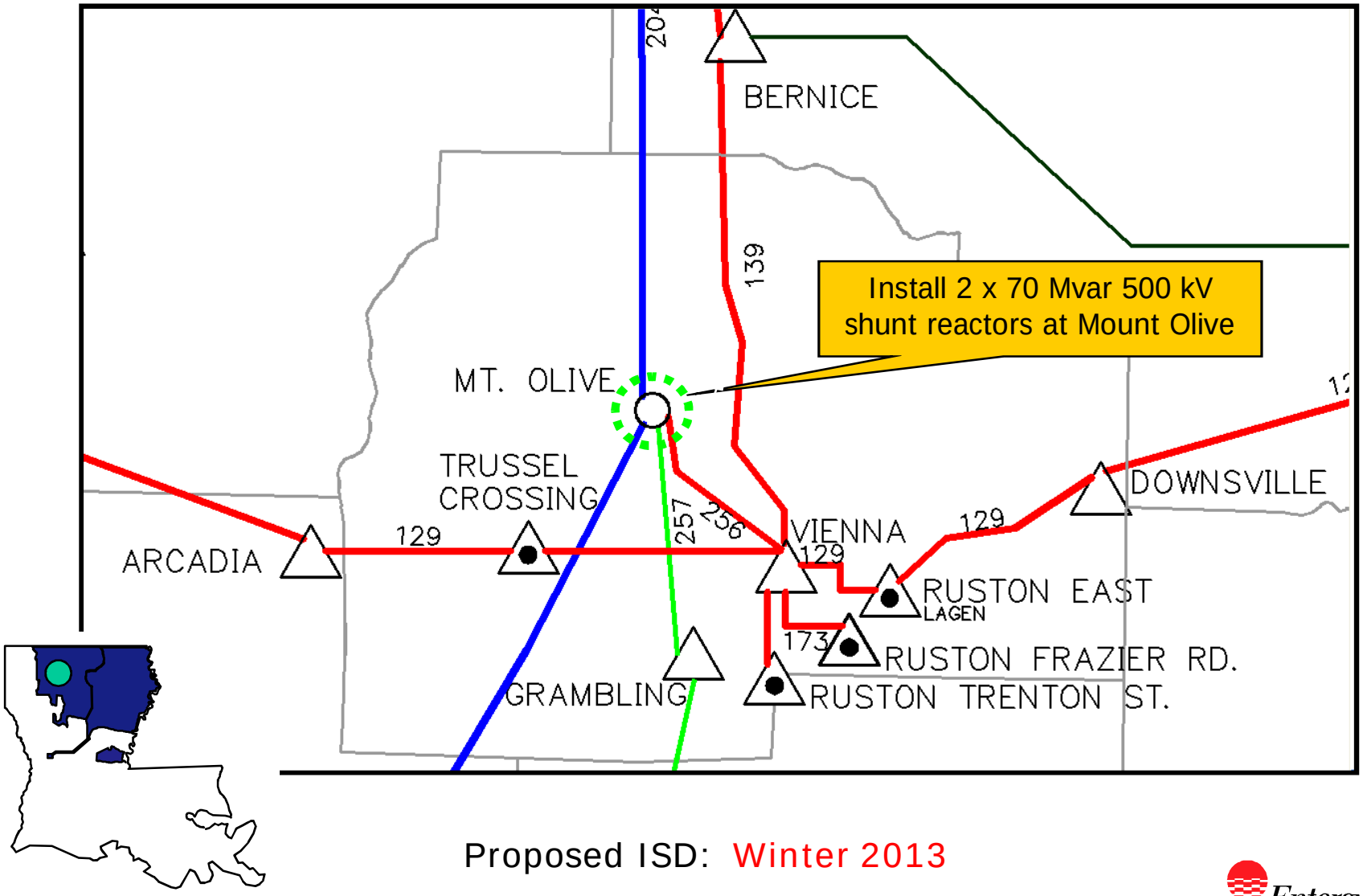
Proposed Solution:

- Install 2 x 70 Mvar 500 kV shunt reactors at Mount Olive 500 kV station

Proposed In-Service Date: Winter 2013

Mount Olive – Add Shunt Reactor

11-ELL-002-CP



Proposed ISD: Winter 2013

Hodge Area Improvement: Source Jonesboro from Danville with new 115kV line

13-ELL-003-CP

Scenario:

- Low voltages exist in the Hodge 115kV area as a result of losing the Danville source in the area

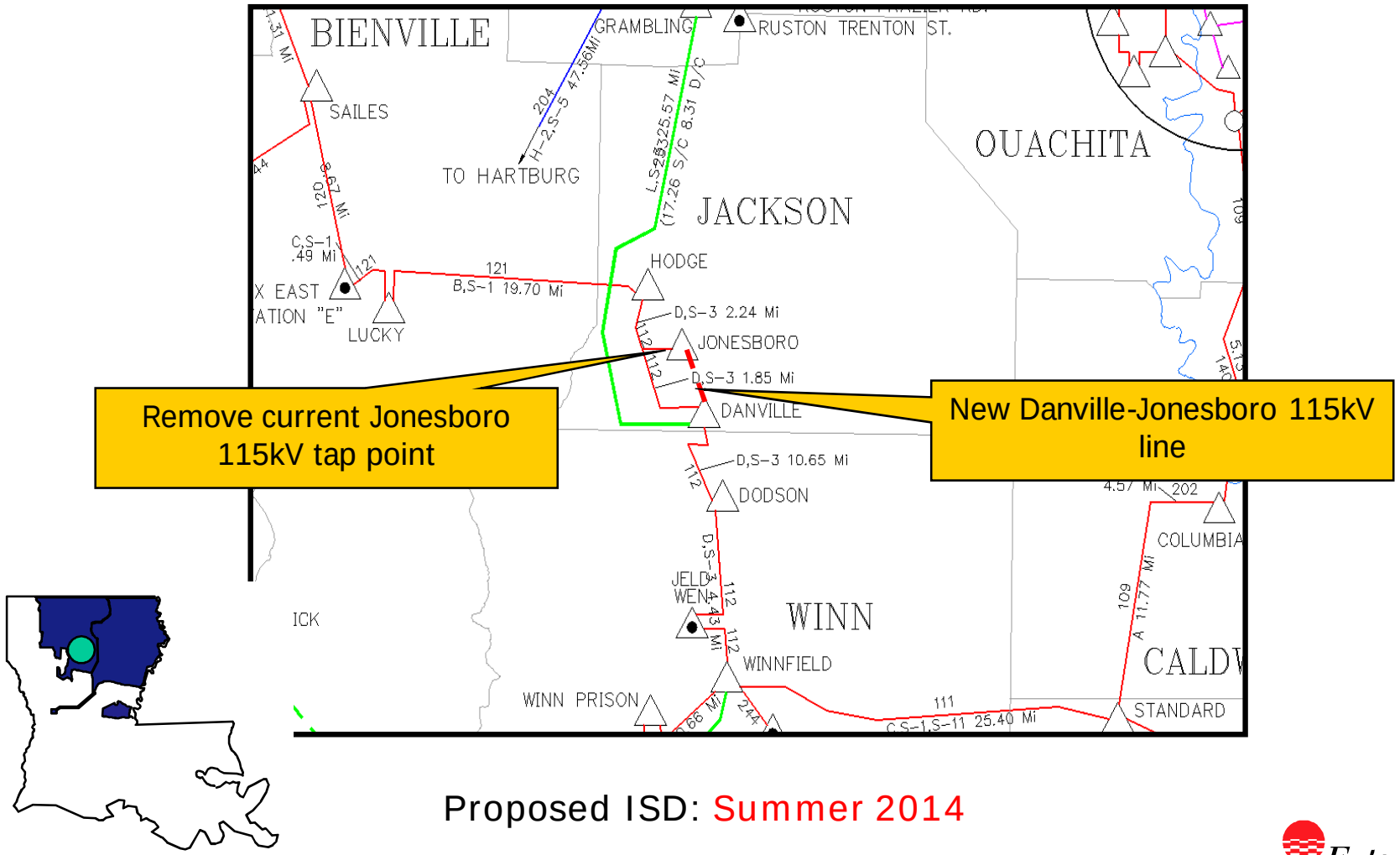
Proposed Solution:

- Construct a new 115kV line from Danville-Jonesboro. Remove existing tap for Jonesboro off of the Hodge-Danville 115kV circuit

Proposed In-Service Date: Summer 2014

Hodge Area Improvement: Source Jonesboro from Danville with new 115kV line

13-ELL-003-CP



Proposed ISD: Summer 2014

Mount Olive to Arcadia Project Phase 1

11-ELL-005-CP

Scenario:

- The loss of the Trussel Crossing to Vienna 115 kV line segment results in the overload of the Minden Lagen to Minden 115 kV line segment.
- Load is projected to exceed 100 MW from breaker to breaker

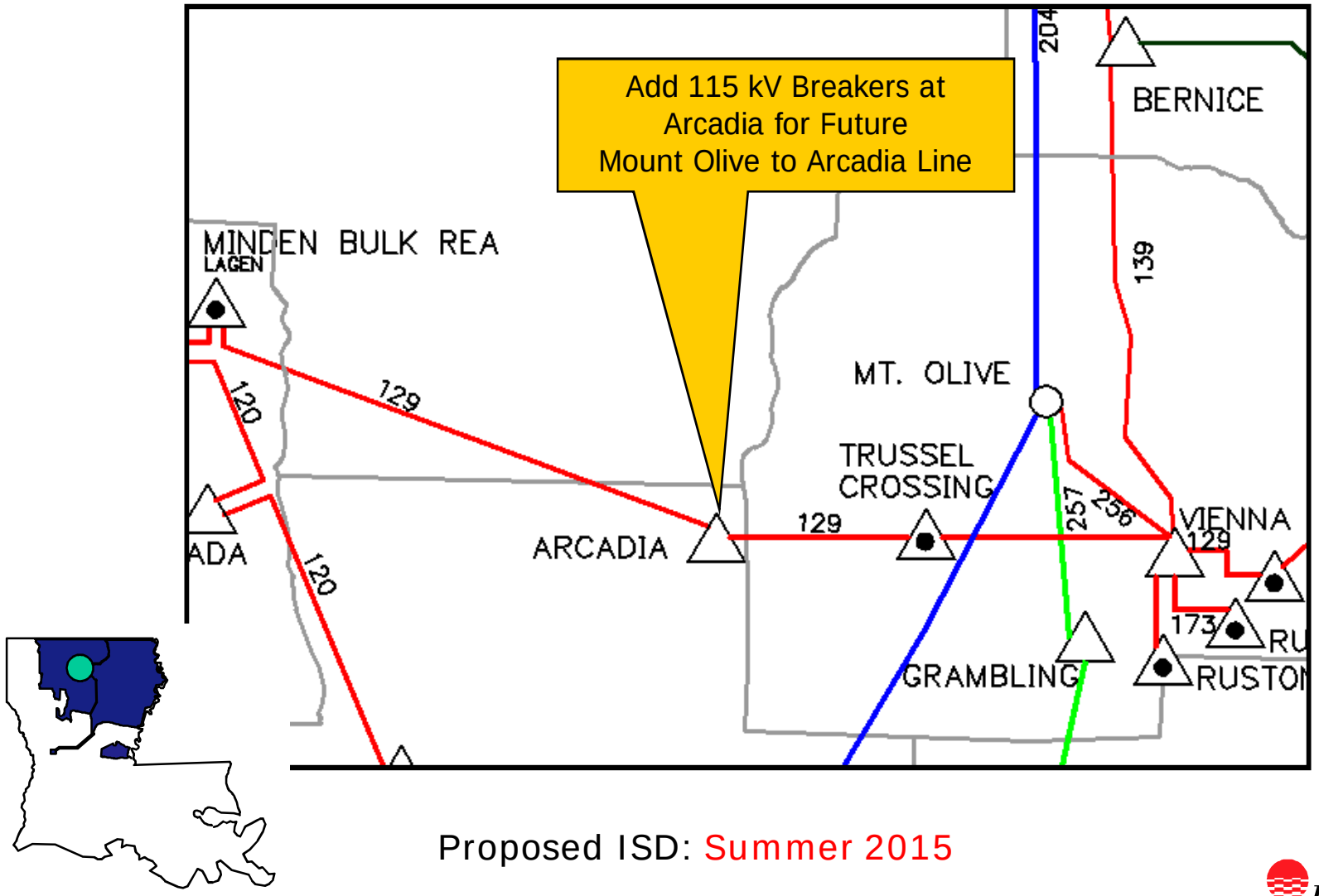
Proposed Solution:

- Add 115 kV breakers at Arcadia due to projected load and accommodate a future Mount Olive to Arcadia line.

Proposed In-Service Date: Summer 2015

Mount Olive to Arcadia Project Phase 1

11-ELL-005-CP



Proposed ISD: Summer 2015

Add 30.5MVAR 115kV capacitor bank at Minden Bulk REA

13-ELL-004-CP

Scenario:

- Low voltages are seen in the Minden area for 2 contingencies:
  - Loss of Sarepta-Minden 115kV
  - Loss of Minden-Minden Bulk REA 115kV

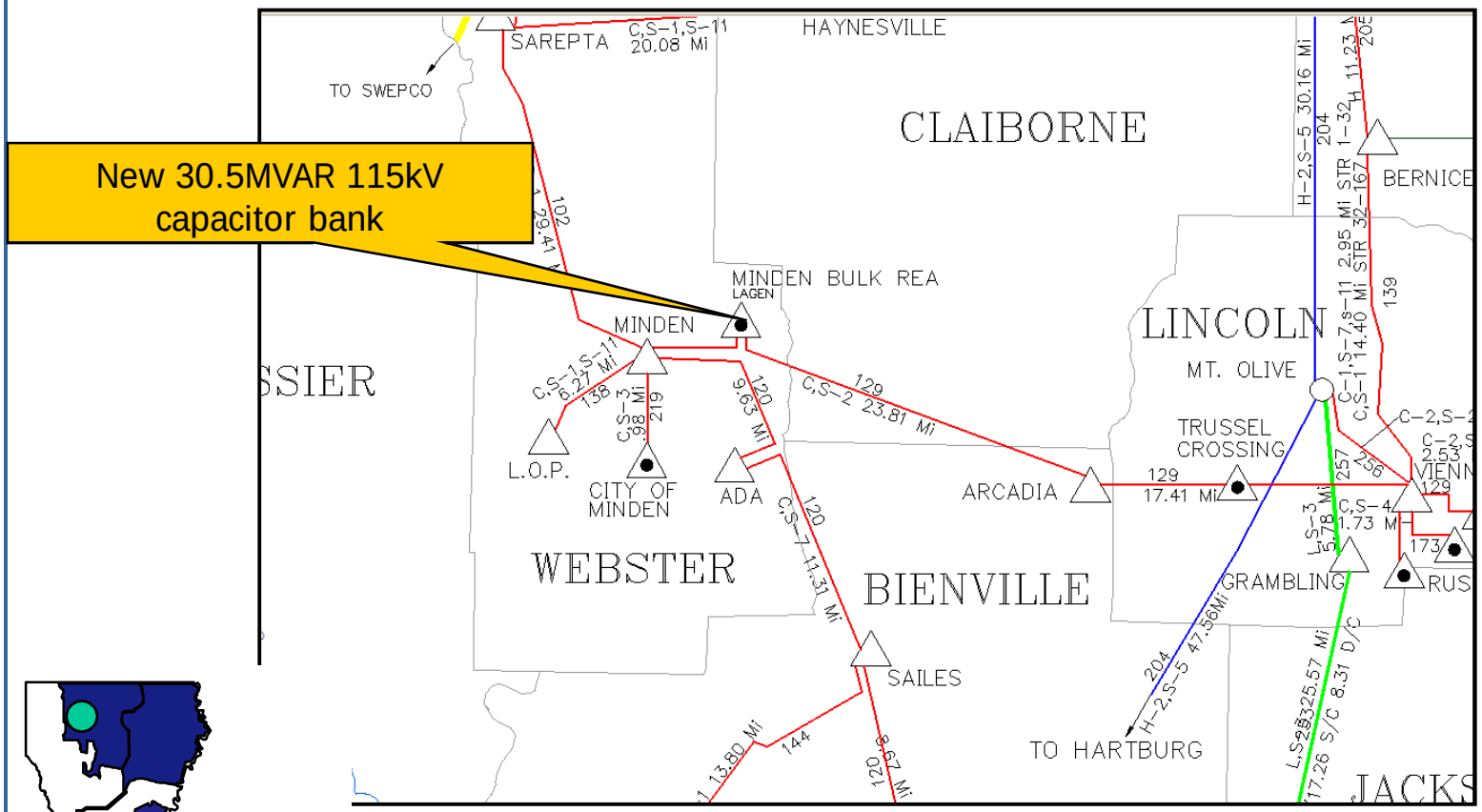
Proposed Solution:

- Add a 30.5MVAR 115kV capacitor bank at Minden Bulk REA to boost voltages across the area.
- Install a pre-insertion device on the capacitor bank to avoid switching transients with other capacitor banks and issues with sensitive radially served customers in the area.

Proposed In-Service Date: Summer 2015

Add 30.5MVAR 115kV capacitor bank at Minden Bulk REA

13-ELL-004-CP



Proposed ISD: Summer 2015

Entergy Louisiana, LLC

South

Southeast Louisiana Coastal Improvement Plan (SELA): Construct New Peters Road to Oakville to Alliance 230 kV Line

10-ELL-007-CP and 10-ELL-008-CP

Scenario:

- The primary transmission sources to lower Lafourche, Lower Jefferson, and Plaquemines Parishes are the Ninemile and Valentine substations. Additionally, upper Plaquemines Parish, including Belle Chasse and the Naval Air Support facility, is experiencing growth after Hurricane Katrina.
- For the contingency loss of the Ninemile to Barataria 115 kV or the Valentine to Clovelly 115 kV lines, potential low voltages and line overloads will occur.
- Construction of a new 230 kV source into the area will provide the additional thermal capacity and voltage support needed to serve the Alliance area.

Recommended Solution:

- Phase 2: Peters Road to Oakville 230 kV Line (Fall 2012)
  - Construct a new 230 kV substation at Oakville and a new radial 230 kV line from Peters Road to Oakville Substation.
- Phase 3: Oakville to Alliance 230 kV Line (Summer 2013)
  - Construct a new 230 kV transmission line from Oakville substation to Alliance substation.
  - Add a 150MVA 230-115 kV auto at Alliance substation.

Proposed In-Service Date: Fall 2012 and Summer 2013

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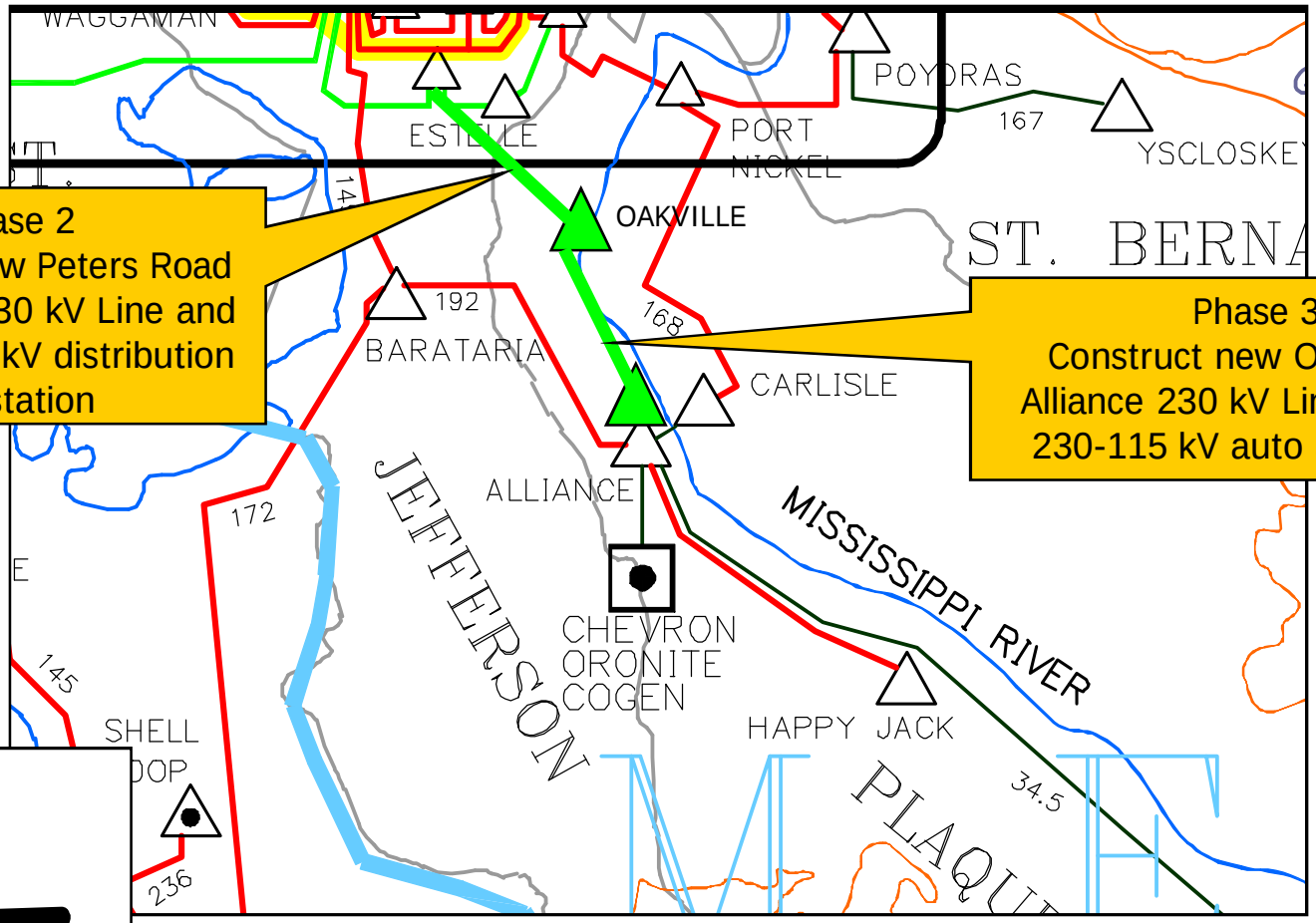
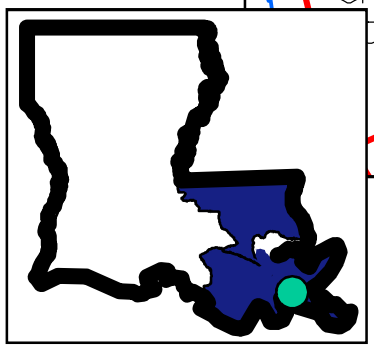
SELA Phase #2 – Peters Road to Oakville 230 kV
SELA Phase #3 – Oakville to Alliance 230 kV

10-ELL-007-CP and 10-ELL-008-CP



Phase 2
Construct new Peters Road to Oakville 230 kV Line and Oakville 230 kV distribution substation

Phase 3
Construct new Oakville to Alliance 230 kV Line and add 230-115 kV auto at Alliance



Proposed ISD: Fall 2012 and Summer 2013

Entergy

Golden Meadow to Barataria 115 kV: Upgrade Switch at Golden Meadow

13-ELL-001-CP

Scenario:

- The Golden Meadow to Barataria 115 kV line overloads FTLO Valentine to Clovelly 115 kV line.

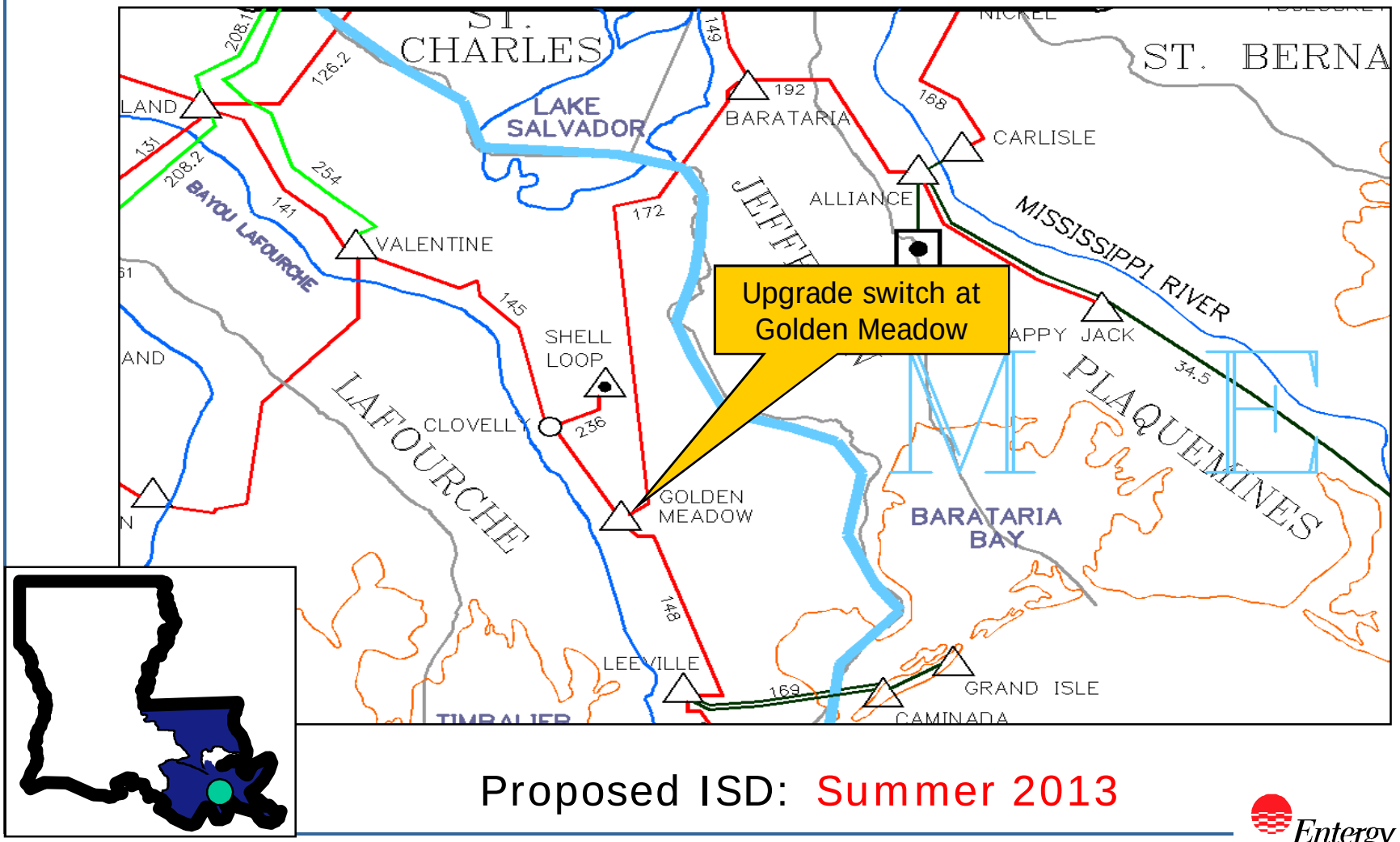
Recommended Solution:

- Replace 600 A switch at Golden Meadow.

Proposed In Service Date: Summer 2013

Golden Meadow to Barataria 115 kV: Upgrade Switch at Golden Meadow

13-ELL-001-CP



Proposed ISD: Summer 2013

Napoleonville 115 kV Substation – Add Capacitor Bank

13-ELL-002-CP

Scenario:

- The loss of either the Addis 230-115 kV Auto, Addis to Plaquemine 115 kV line, or the Plaquemine to McCall 115 kV line will result in low voltages in the area.

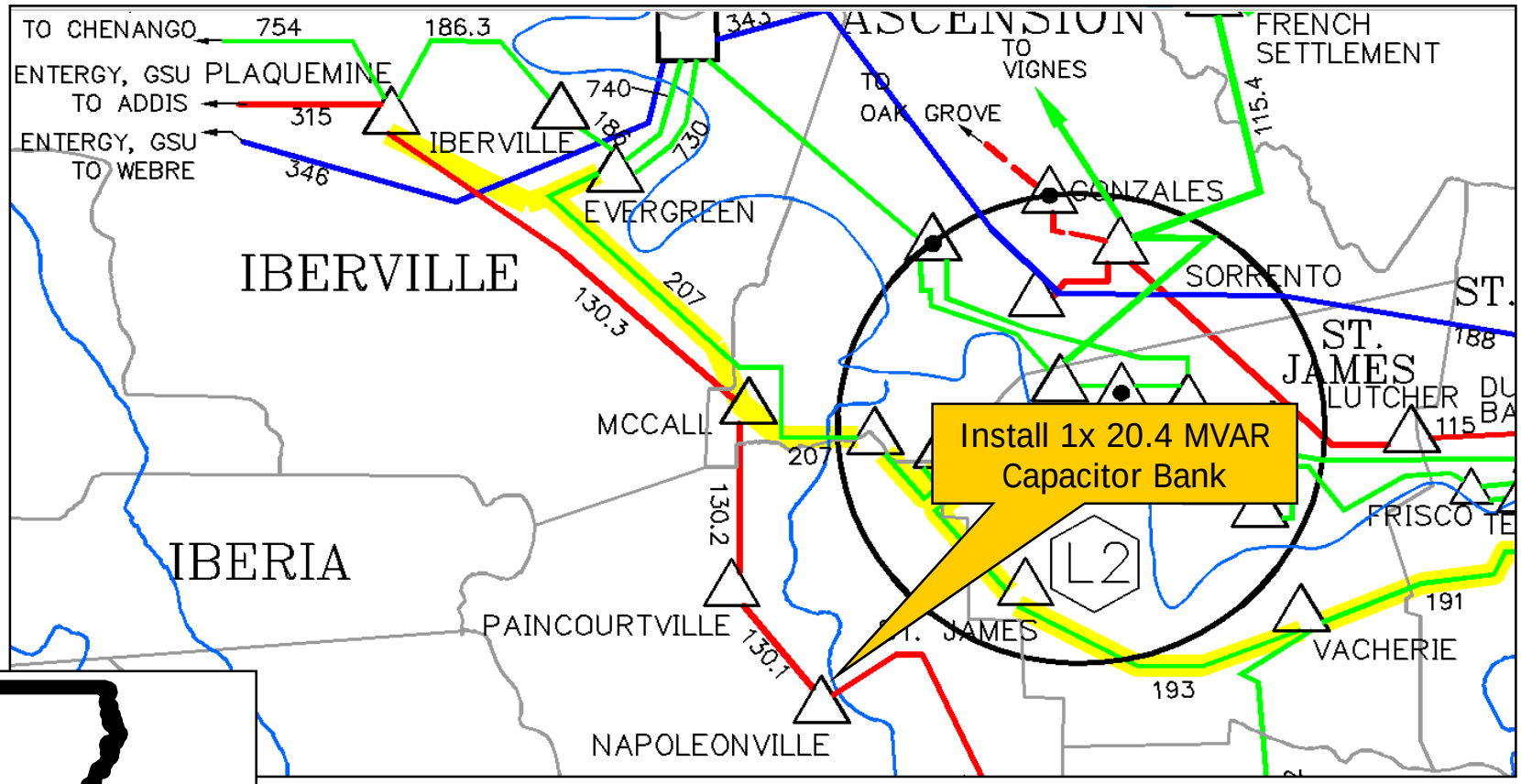
Recommended Solution:

- Install 1 x 20.4 MVAR Capacitor Bank at the Napoleonville 115 kV Substation
- Note: Construction feasibility may require capacitor bank to be installed at McCall substation in lieu of Napoleonville.

Proposed In Service Date: Summer 2013

Napoleonville 115 kV Substation – Add Capacitor Bank

13-ELL-002-CP



Proposed ISD: Summer 2013

Golden Meadow to Leeville 115 kV Rebuild /Relocate 115 kV Transmission Line

11-ELL-001-CP

Scenario:

- The Golden Meadow to Leeville to Fourchon 115 kV circuit is an existing radial line located in the marsh.
- This project is needed in order to relocate the existing line out of the marsh and improve reliability/restoration to the Leeville and Fouchon area.

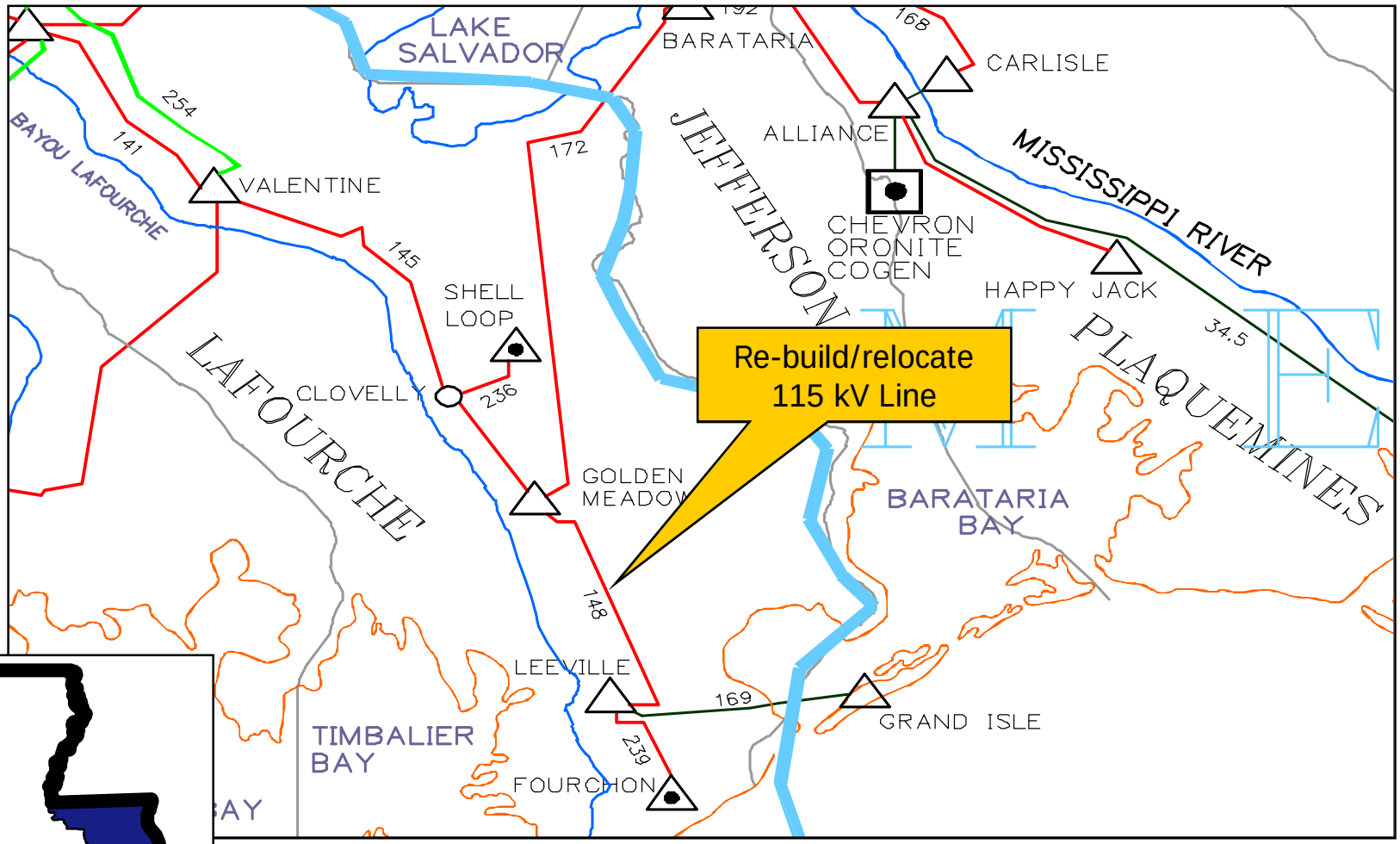
Recommended Solution:

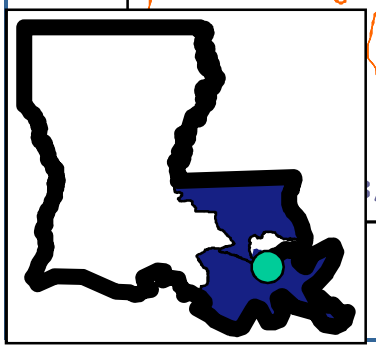
- Golden Meadow to Leeville rebuild/relocate 115 kV transmission line.

Proposed In-Service Date: Winter 2013

Golden Meadow to Leeville 115 kV Rebuild /Relocate 115 kV Transmission Line

11-ELL-001-CP





Proposed ISD: Winter 2013

Entergy

Ninemile Generator Interconnection and Transmission Service

11-ELL-009-1-CP , 11-ELL-009-2-CP , 11-ELL-010-1-CP , and 11-ELL-010-2-CP

Scenario:

- Ninemile (NM6) generator Interconnection Project in ELL South.
- Associated Transmission Service upgrades

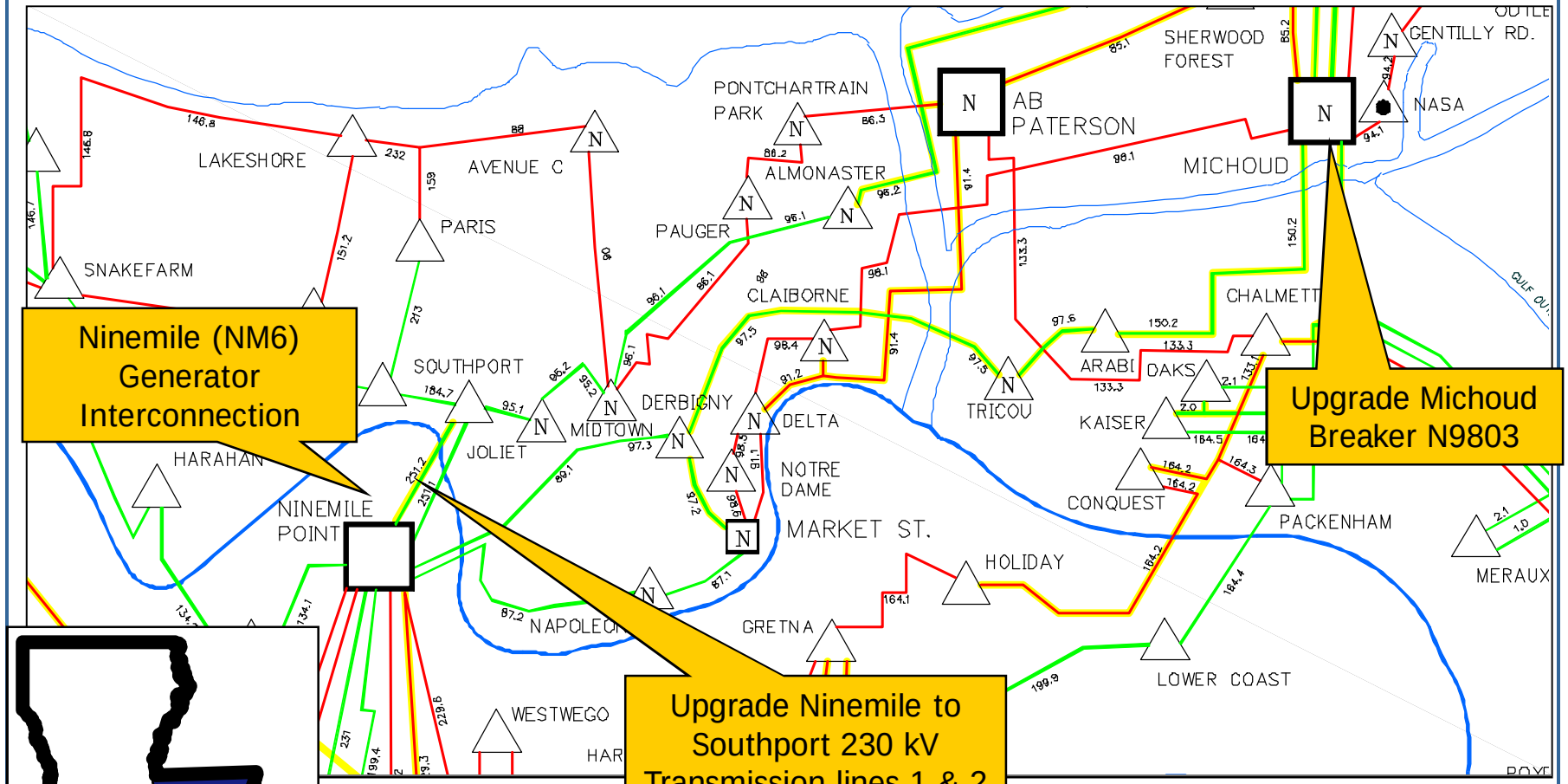
Recommended Solution:

- Modify Ninemile switchyard (interconnection)
- Upgrade Michoud breaker N9803 (interconnection)
- Upgrade Ninemile to Southport 230 kV transmission line No.1 (TS)
- Upgrade Ninemile to Southport 230 kV transmission line No.2 (TS)

Proposed In-Service Date: Winter 2014

Ninemile Generator Interconnection and Transmission Service

11-ELL-009-1-CP , 11-ELL-009-2-CP , 11-ELL-010-1-CP , and 11-ELL-010-2-CP



Proposed ISD: Winter 2014

Iron Man to Tezcuco: Construct New 230 kV Line

10-ELL-009-CP

Scenario:

- Studies indicate that the Belle Point to Little Gypsy 230 kV transmission line exceeds its thermal rating due to the contingency loss of the Waterford to Tezcuco 230 kV transmission line. Additionally, the Waterford to Tezcuco 230 kV transmission line will exceed its thermal rating due to the contingency loss of the Belle Point to Little Gypsy 230 kV transmission line.

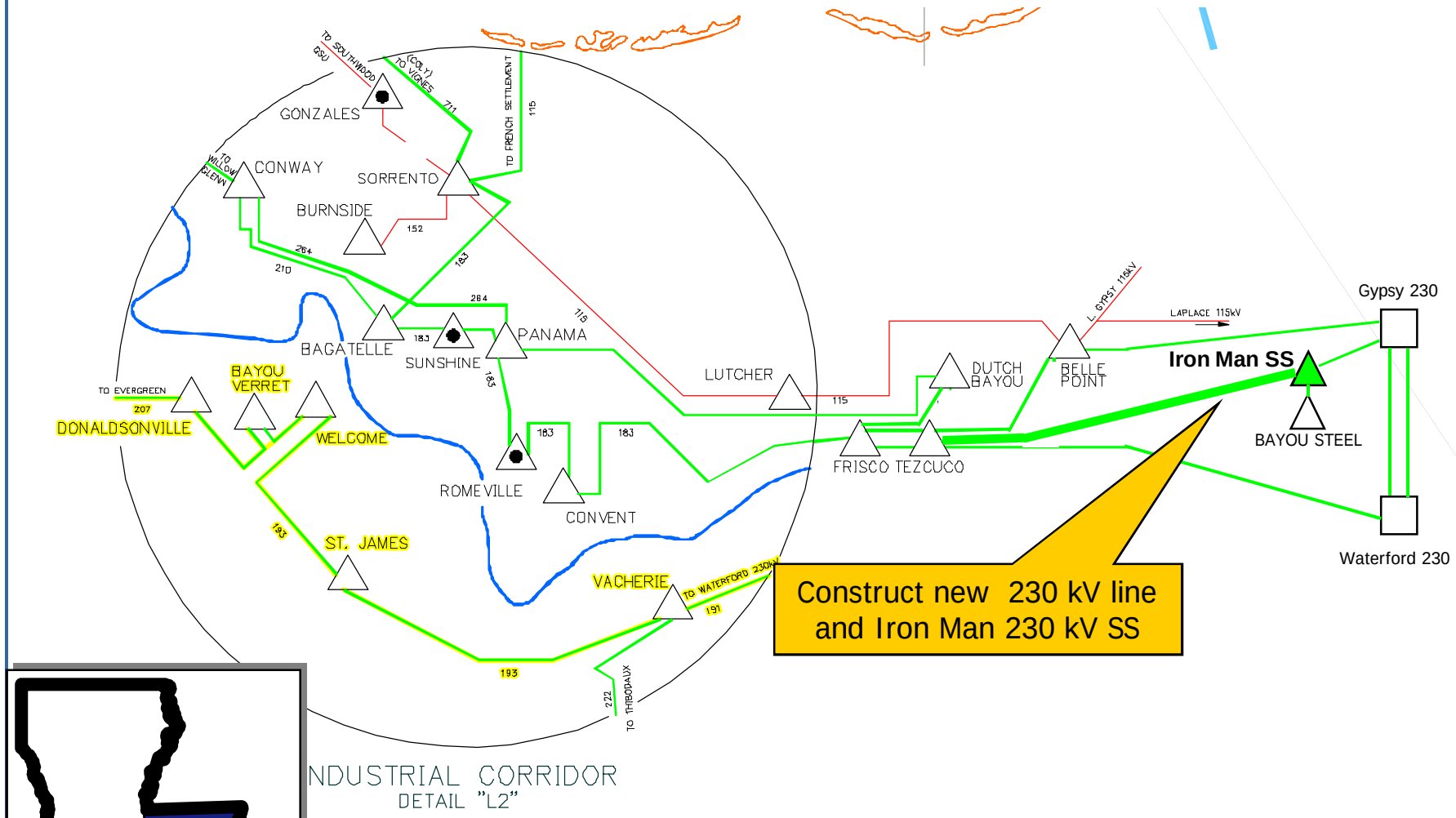
Recommended Solution:

- Construct the new Iron Man 230 kV SS on the Gypsy to Bayou Steel 230 kV line (Complete)
- Construct approximately 10.7 miles of new 230 kV transmission line from Iron Man to Tezcuco to provide a parallel 230 kV line.

Proposed In-Service Date: Summer 2015

Iron Man to Tezcuco: Construct New 230 kV Line

10-ELL-009-CP



Proposed ISD: Summer 2015

Valentine to Clovelly 115 kV line – Construct New 230 kV line and operate at 115 kV

11-ELL-012-CP

Scenario:

- Loss of the Golden Meadow to Barataria 115 kV line will result in the Valentine to Clovelly 115 kV line to exceed its thermal rating.

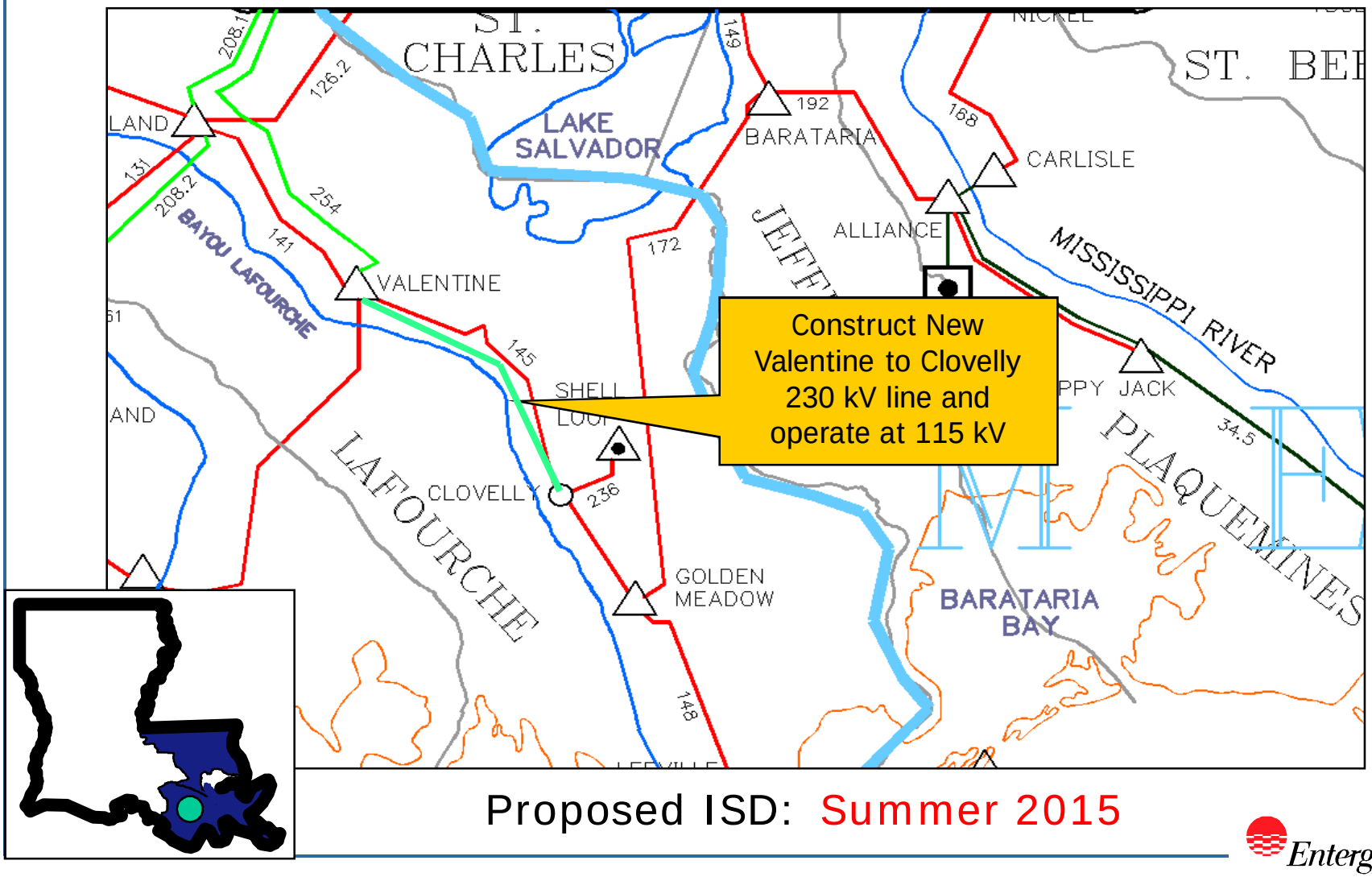
Recommended Solution:

- Construct a new 230 kV line operated at 115 kV and cut-in to Valentine and Clovelly in order to increase the thermal capacity of the line.

Proposed In Service Date: Summer 2015

Valentine to Clovelly 115 kV line – Construct New 230 kV line and operate at 115 kV

11-ELL-012-CP



Proposed ISD: Summer 2015

Entergy Gulf States Louisiana, L.L.C.

Lake Charles Bulk Substation
Replace Four 69 kV Switches

12-EGL-014-CP

Scenario:

- The existing 138-69 kV autotransformers are limited by 600 A, 69 kV switches. Additionally there are 600A bus tie switches which result in a limit to two of the 69 kV lines.
- Various single contingencies will result in the 600 A kV switches exceeding their thermal rating.

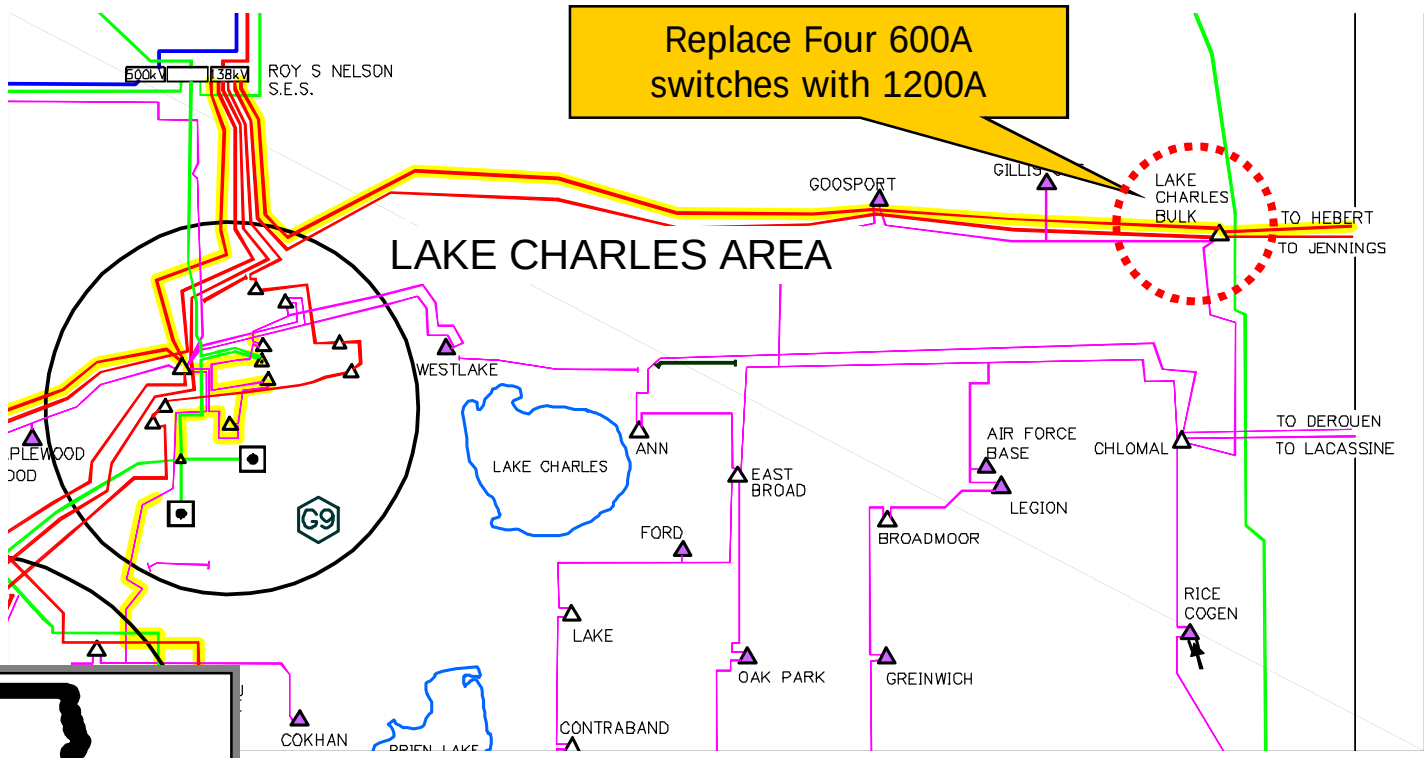
Recommended Solution:

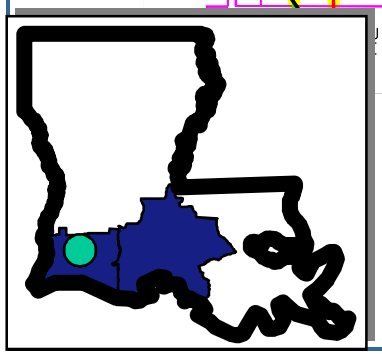
- Replace all four switches with 1200A switches.

Proposed In-Service Date: Fall 2012

Lake Charles Bulk Substation
Replace Four 69 kV Switches

12-EGL-014-CP





Proposed ISD: Fall 2012

Fireco to Copol 69 kV

Upgrade Line Conductor

11-EGL-013-1-CP

Scenario:

- Loss of the Addis A, 138-69 kV autotransformer will result in the Fireco to Copol line section to exceed its thermal rating.

Recommended Solution:

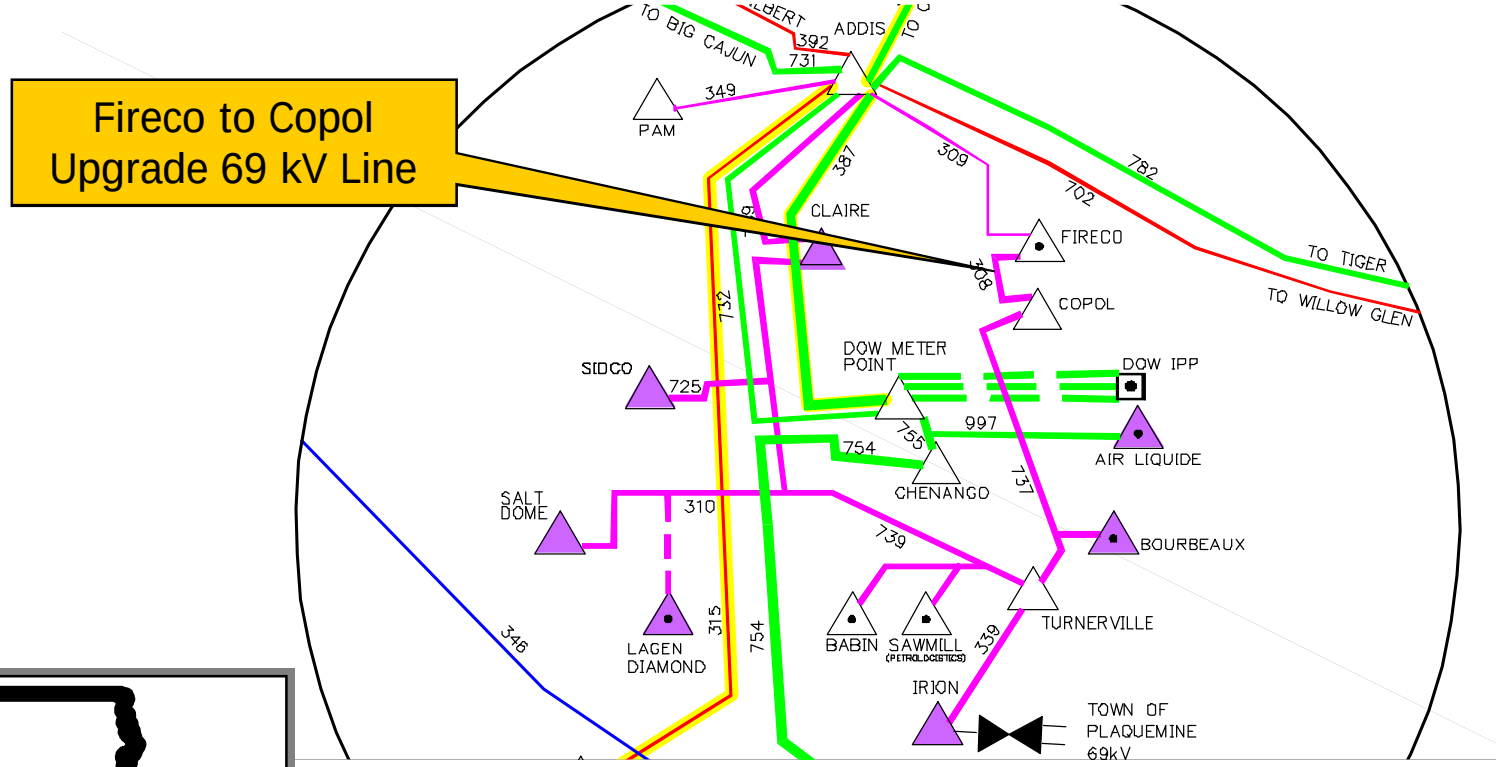
- Upgrade the Fireco to Copol 69 kV line segment conductor

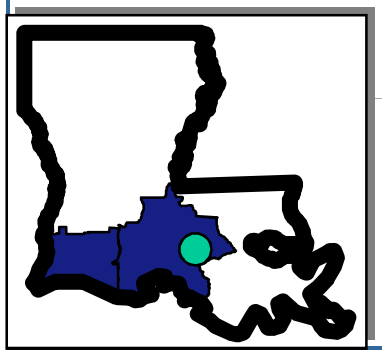
Proposed In-Service Date: Winter 2012

Fireco to Copol 69 kV

Upgrade Line Conductor

11-EGL-013-1-CP





Proposed ISD: Winter 2012

Mossville – Cut-In Line 616 (Nelson to Carlyss) into Mossville 138 kV Substation

10-EGL-011-CP

Scenario:

- Loss of the Carlyss to Citcon West 138 kV line will result in the Nelson to Mossville 138 kV line exceeding its thermal rating.

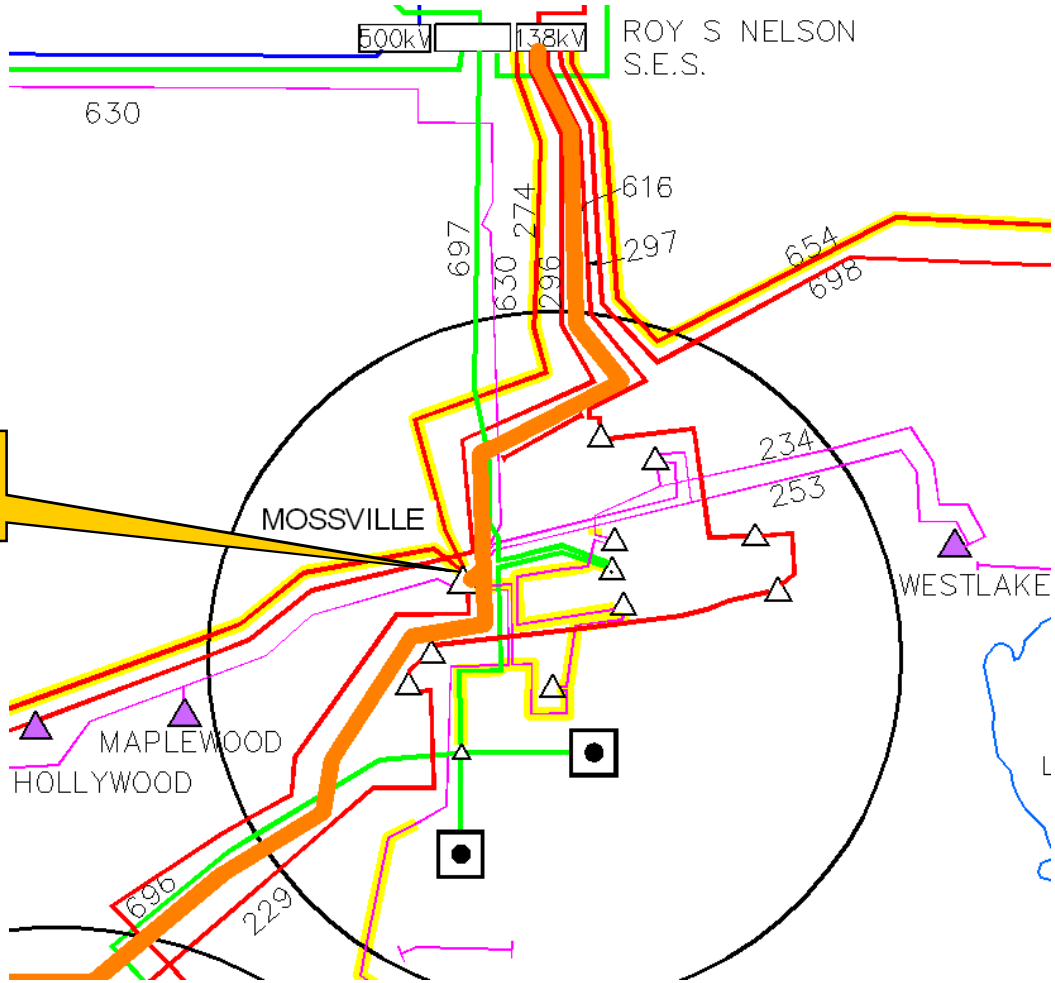
Recommended Solution:

- Cut-in the existing Nelson to Carlyss 138 kV line 616 into the Mossville 138 kV Substation.

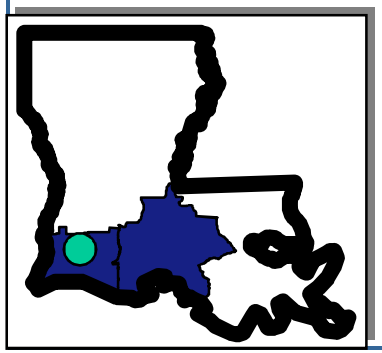
Proposed In-Service Date: Summer 2013

Mossville – Cut-In Line 616 (Nelson to Carlyss) into Mossville 138 kV Substation

10-EGL-011-CP



Cut-in Line 616 into Mossville



Proposed ISD: Summer 2013

Bloomfield to Bosco 138 kV Line
(formerly Vatican Project)
11-EGL-004-CP

Scenario:

- The open breaker loss of the Scott to Vatican 138 kV line segment leaves the Vatican 138 kV substation sourced radially out of Wilbert resulting in low voltages and thermal overloads in the area on the 138 kV and 69 kV systems.

Recommended Solution:

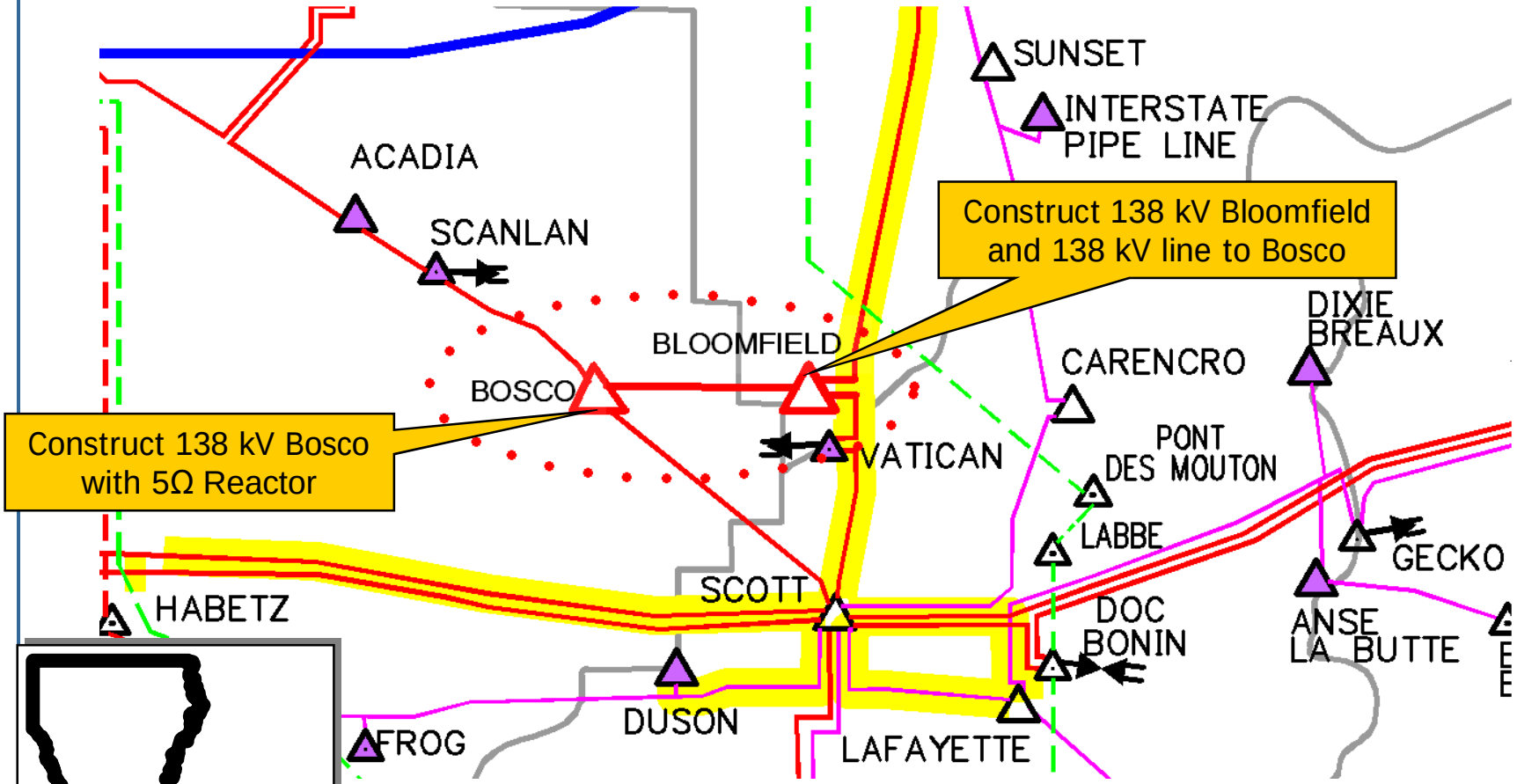
- Construct new Bloomfield 138 kV Switching Station north of Vatican
- Construct new Bosco 138 kV Switching Station on Scott to Scanlan 138 kV line
- Construct new 4 mile Bloomfield to Bosco 138 kV line
- Install 5Ω Reactor at Bosco Switching Station

Proposed In-Service Date: Summer 2013

Bloomfield to Bosco 138 kV Line

(formerly Vatican Project)

11-EGL-004-CP



Proposed ISD: Summer 2013

Francis 69 kV Substation – Add 69 kV Cap Bank

11-EGL-008-CP

Scenario:

- The loss of Port Hudson to Sandy Creek results in low voltage at Francis and additional 69kV substations in the area.

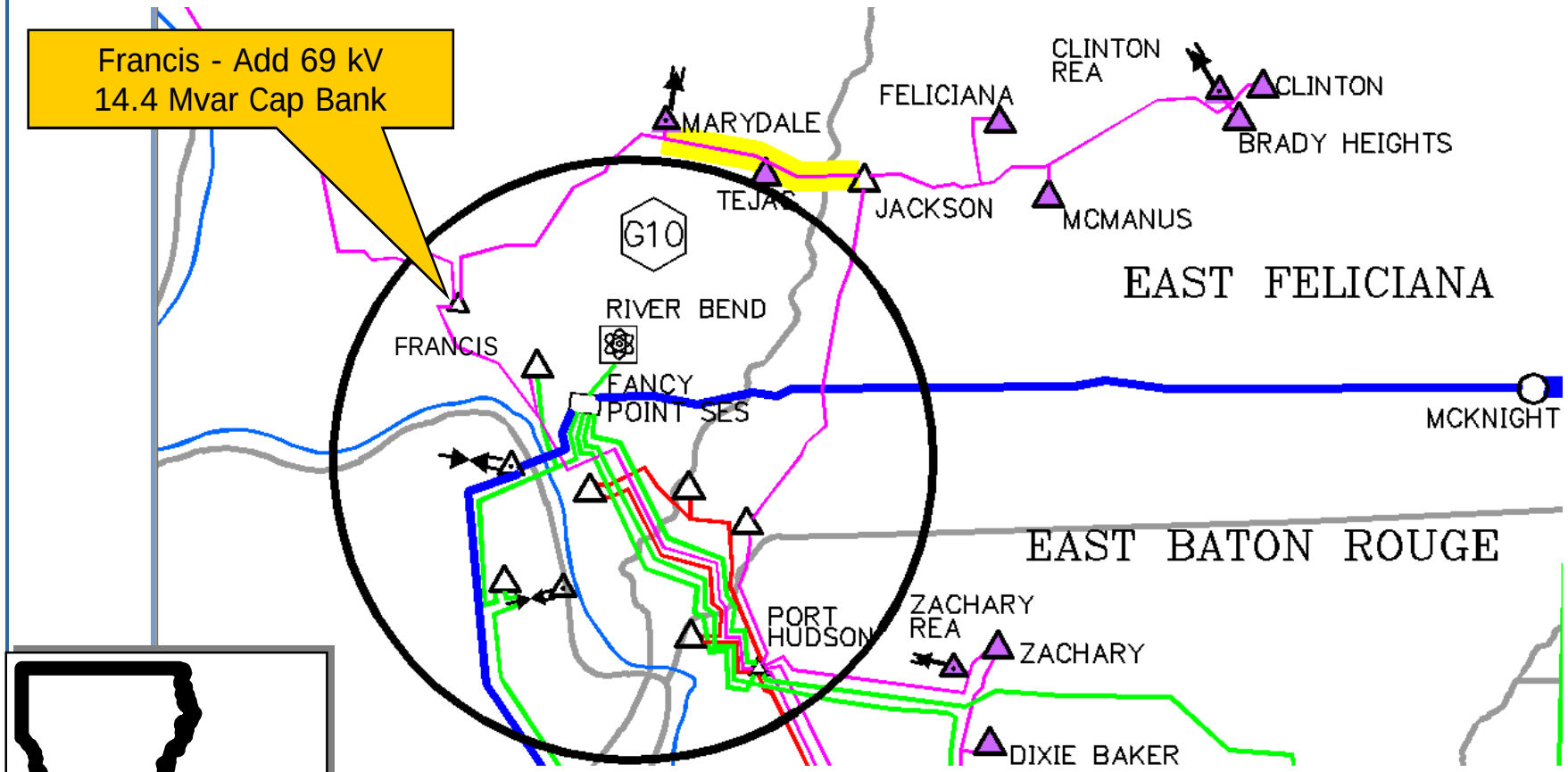
Recommended Solution:

- Add 14.4 Mvar capacitor bank at Francis to provide additional voltage support in the area.

Proposed In-Service Date: Summer 2013

Francis 69 kV Substation – Add 69 kV Capacitor Bank

11-EGL-008-CP



Proposed ISD: Summer 2013

Acadia Generation

11-EGL-015-3-CP and 11-EGL-015-4-CP

Scenario:

- Acadia Generation – Transmission Service

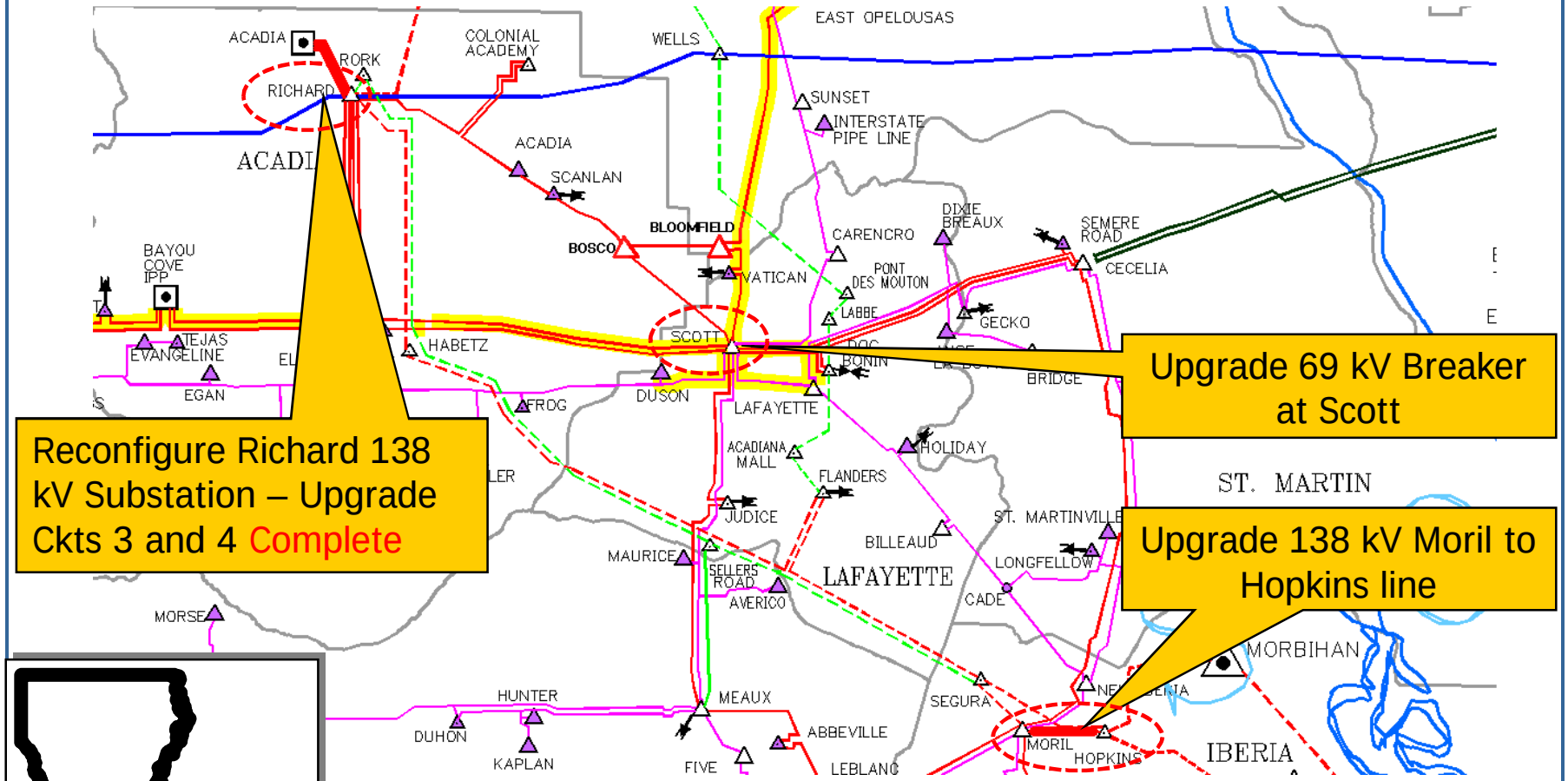
Recommended Solution:

- Reconfigure Richard 138 kV Substation: Upgrade Ckts 3 & 4 (complete)
- Upgrade Moril to Hopkins 138 kV line
- Upgrade Breaker #18220 at Scott 69 kV Substation

Proposed In-Service Date: Summer 2013

Acadia Generation

11-EGL-015-3-CP and 11-EGL-015-4-CP



Proposed ISD: Summer 2013

Champagne to Plaisance 138 kV line - Modify/Replace CTs at Champagne

12-EGL-003-CP

Scenario:

- Studies indicate that the Champagne to Plaisance (CLECO) 138 kV transmission line overloads for the loss of CLECO's Cocodrie to Ville Platte 230 kV line.
- The line rating is limited to 800A due to an existing CT at Champagne.

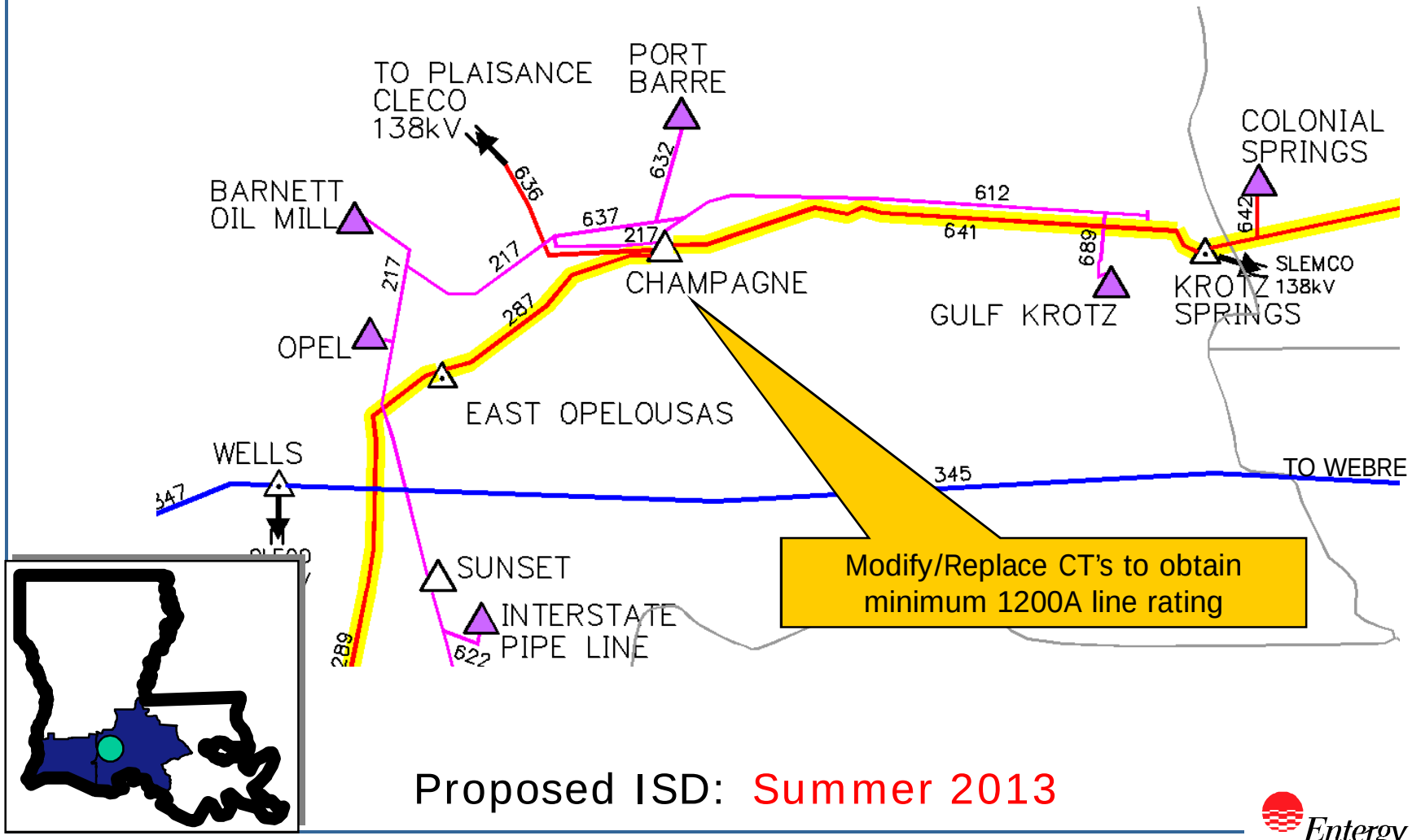
Recommended Solution:

- Increase line rating to a minimum of 1200A, by modifying the existing CT ratio or replacing the CT at Champagne.

Proposed In-Service Date: Summer 2013

Champagne to Plaisance 138 kV line - Modify/Replace CTs at Champagne

12-EGL-003-CP



Proposed ISD: Summer 2013

Mossville to Canal – Upgrade 69 kV Line

11-EGL-016-01-CP and 11-EGL-016-02-CP

Scenario:

- Reliability Analysis indicates...
  - A portion of the Mossville to Canal 69 kV line conductors reaches 100% of its thermal rating in Winter of 2012 during base case conditions and exceeds its thermal rating in Winter of 2013.
  - By Winter 2014 the remaining major portion of the conductors will be near 100% of their thermal rating.

Recommended Solution:

- Phase 1 : Upgrade portion of 69 kV line (Winter 2013)

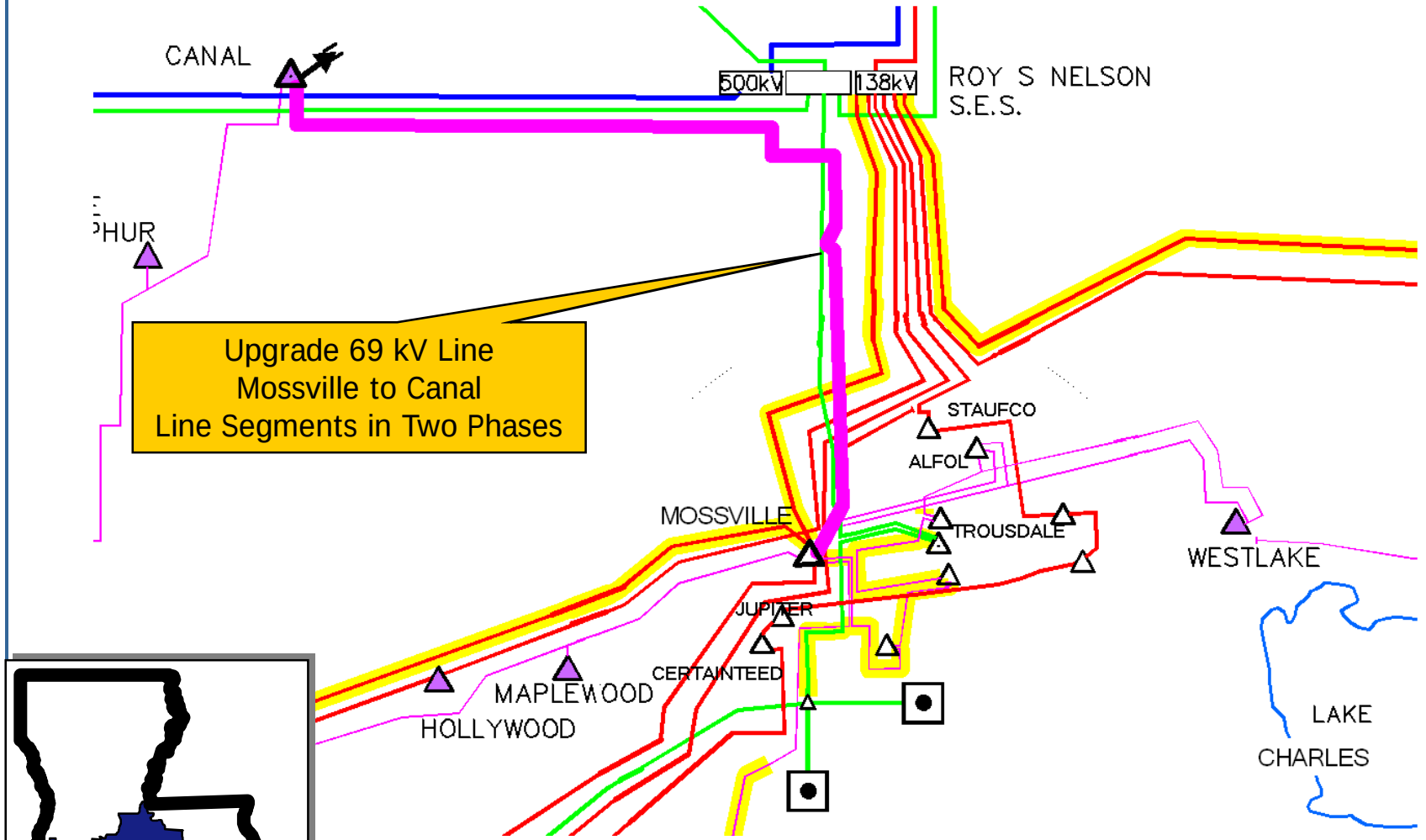
  Phase 2 : Upgrade the remaining 69 kV line segments of the circuit to a minimum of 69 MVA thermal rating. (Winter 2014)

Proposed In-Service Date: Winter 2013 and Winter 2014

Entergy

Mossville to Canal – Upgrade 69 kV Line

11-EGL-016-01-CP and 11-EGL-016-02-CP



Proposed ISD: Winter 2013 and Winter 2014

Entergy

Willow Glen to Conway – Construct New 230kV Line

12-EGL-015-CP

Scenario:

- Loss of the Willow Glen to Waterford 500kV line results in increased loading on the St. Gabriel to A.A.C. to Belle Helene to Woodstock 230kV line in the industrial corridor.

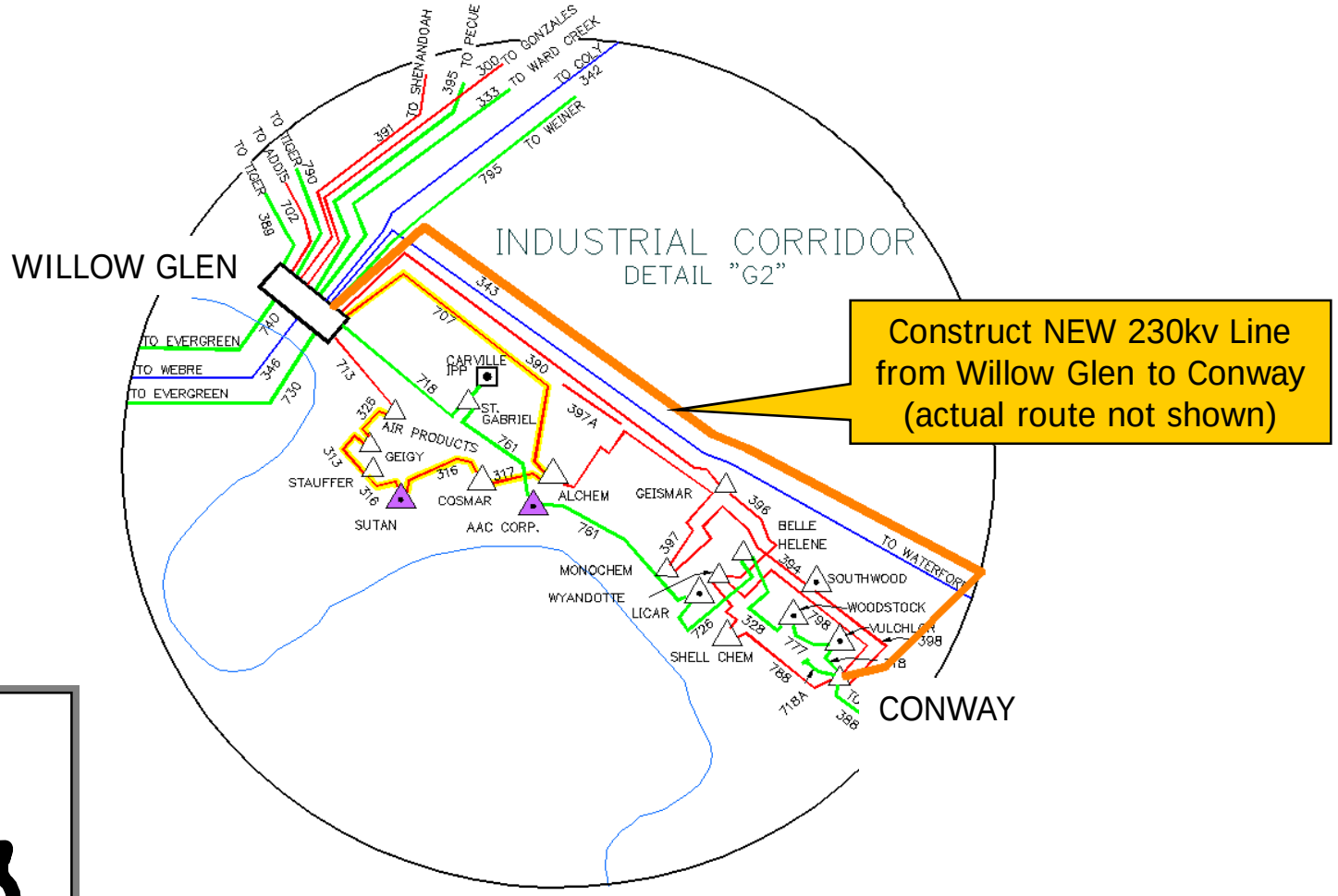
Recommended Solution:

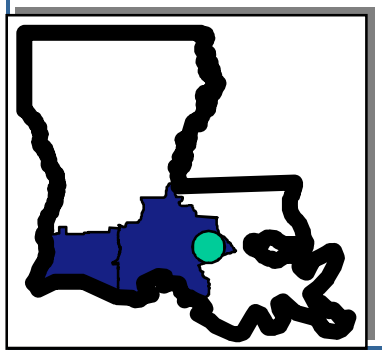
- Construct a new 230kV line from Willow Glen to Conway (approximately 16 miles).

Proposed In-Service Date: Winter 2013

Willow Glen to Conway: New 230kV Line

12-EGL-015-CP





Proposed ISD: Winter 2013

Sorrento Upgrade 138-115 kV Auto and Upgrade Gonzales to Sorrento 138 kV line

11-EGL-010-CP

Scenario:

- The Sorrento to Gonzales 138 kV Line 720 and Sorrento Auto Transformer #2 will overload for the loss of the Willow Glen to Oak Grove 138 kV Line section.
- Load is projected to exceed 100 MW breaker to breaker.

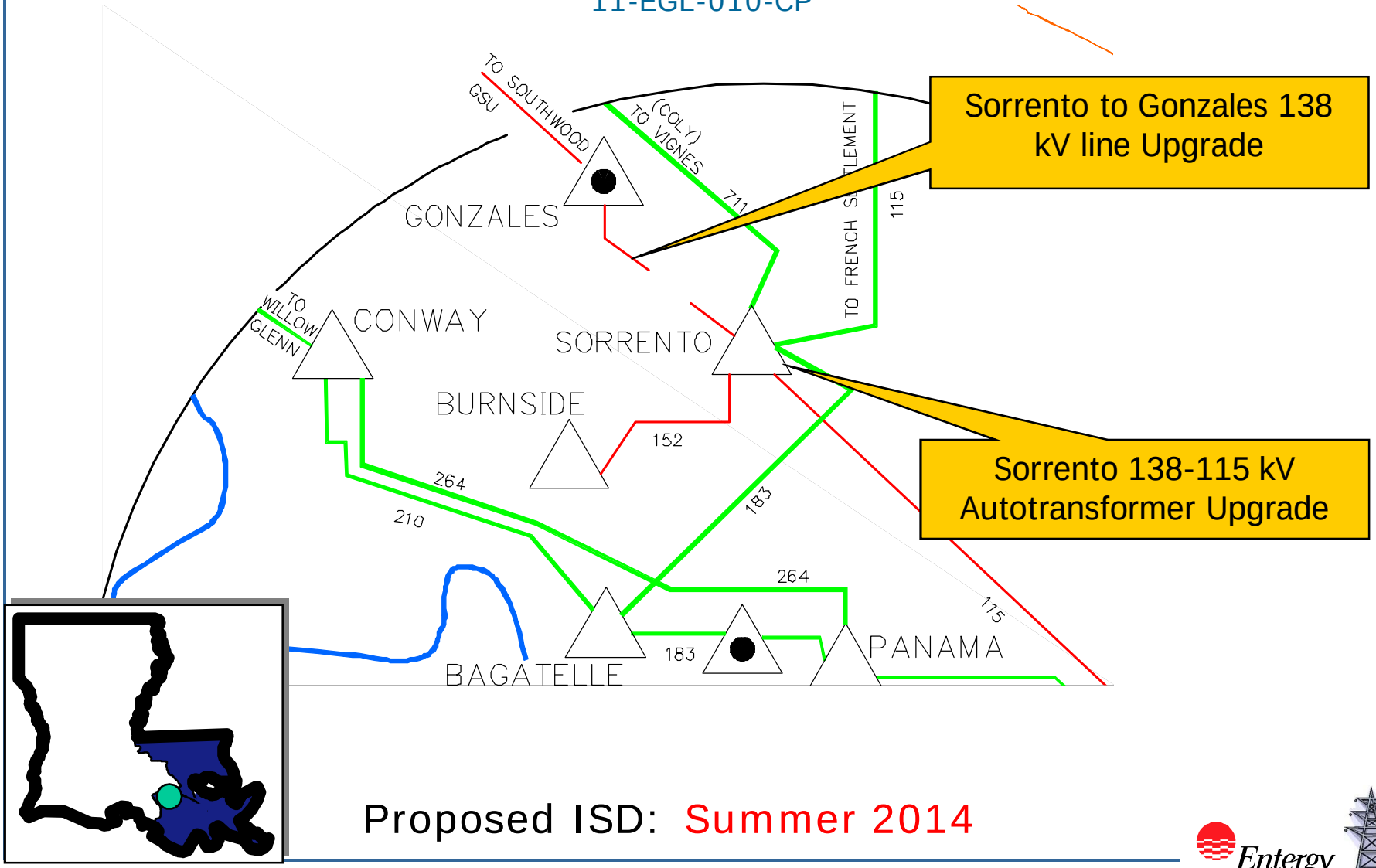
Recommended Solution:

- Upgrade 138-115 kV Auto and Gonzales to Sorrento 138 kV line

Proposed In-Service Date: Summer 2014

Sorrento Upgrade 138-115 kV Auto and Upgrade Gonzales to Sorrento 138 kV line

11-EGL-010-CP



Proposed ISD: Summer 2014

Copol to Bourbeaux – Upgrade 69 kV Line

12-EGL-008-CP

Scenario:

- The loss of the Addis A, 138-69 kV autotransformer will result in the Copol to Bourbeaux 69 kV section to exceed its thermal rating.

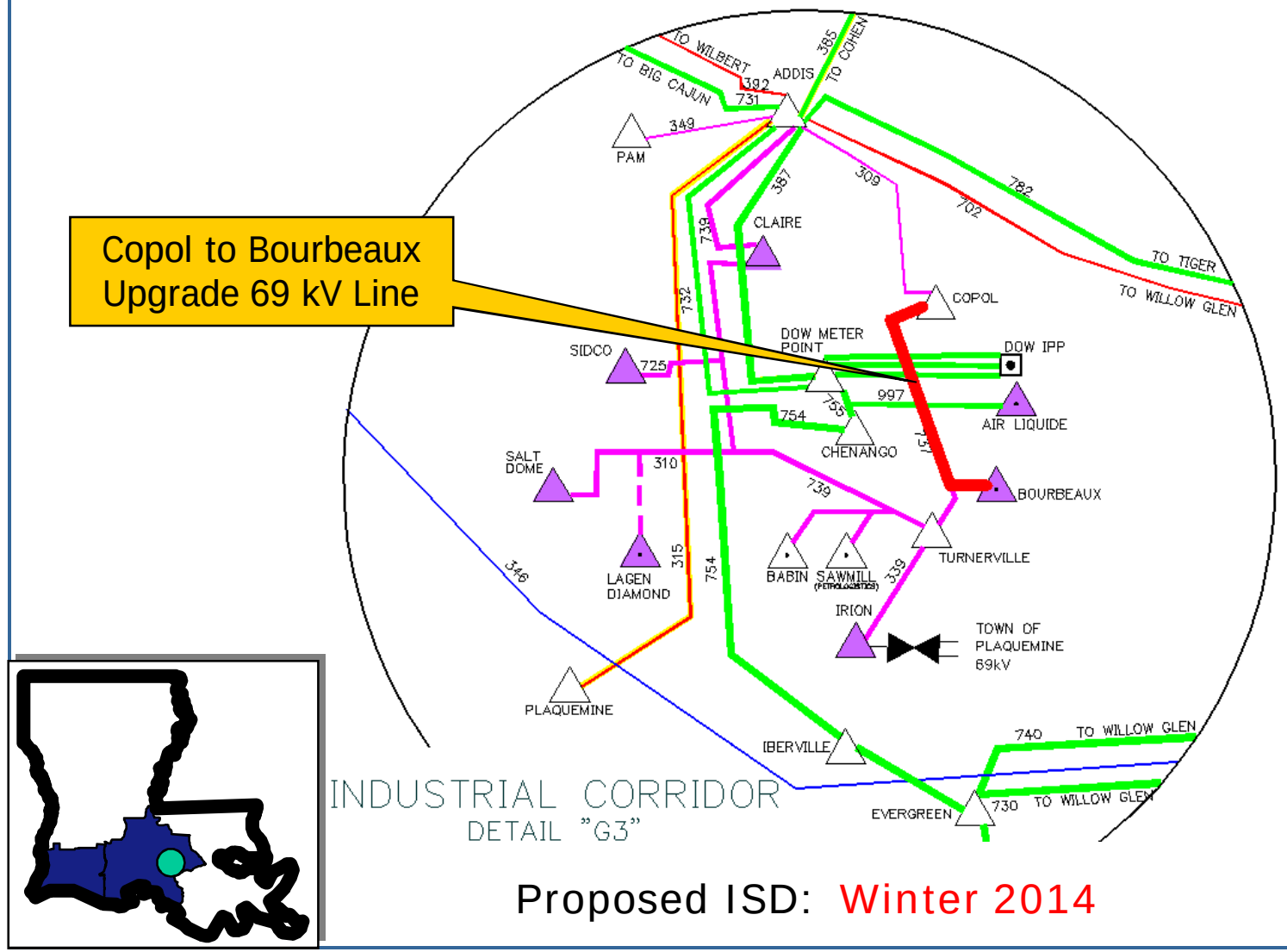
Recommended Solution:

- Upgrade the Copol to Bourbeaux 69 kV line and station equipment as needed to obtain a 1200A minimum circuit rating.

Proposed In-Service Date: Winter 2014

Copol to Bourbeaux – Upgrade 69 kV Line

12-EGL-008-CP



Proposed ISD: Winter 2014

Bronco – New 230 kV Distribution Substation
(formerly Zachary)
12-EGL-006-CP

Scenario:

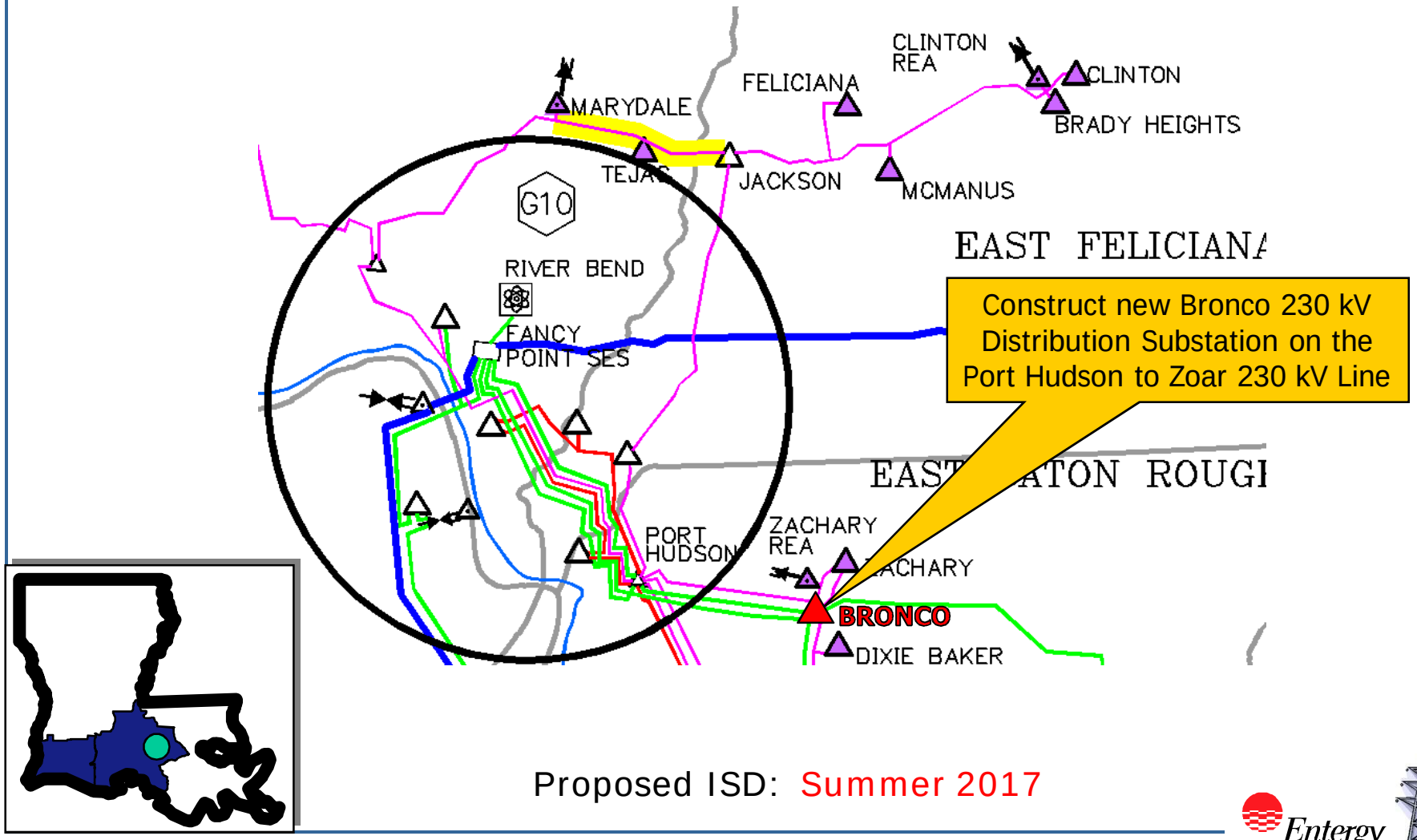
- In the summer of 2017, studies indicate that the Port Hudson to Zachary REA 69 kV line will exceed its thermal rating during base case conditions.
- Additionally, there are currently two 138-69 kV autotransformers at Port Hudson. The loss of either autotransformer results in the remaining auto to exceed its thermal rating.

Recommended Solution:

- Construct the new Bronco 230 kV distribution substation on the existing Port Hudson and Zoar 230 kV line. Relocate load from the existing Zachary 69 kV Substation to Bronco and unload existing 69 kV facilities.

Proposed In-Service Date: Summer 2017

Bronco – New 230 kV Distribution Substation
(formerly Zachary)
12-EGL-006-CP



Proposed ISD: Summer 2017

McManus to Brady Heights – Upgrade 69 kV Line

12-EGL-004-CP

Scenario:

- The McManus to Brady Heights 69 kV radial transmission line will exceed its thermal rating in the Winter of 2017.

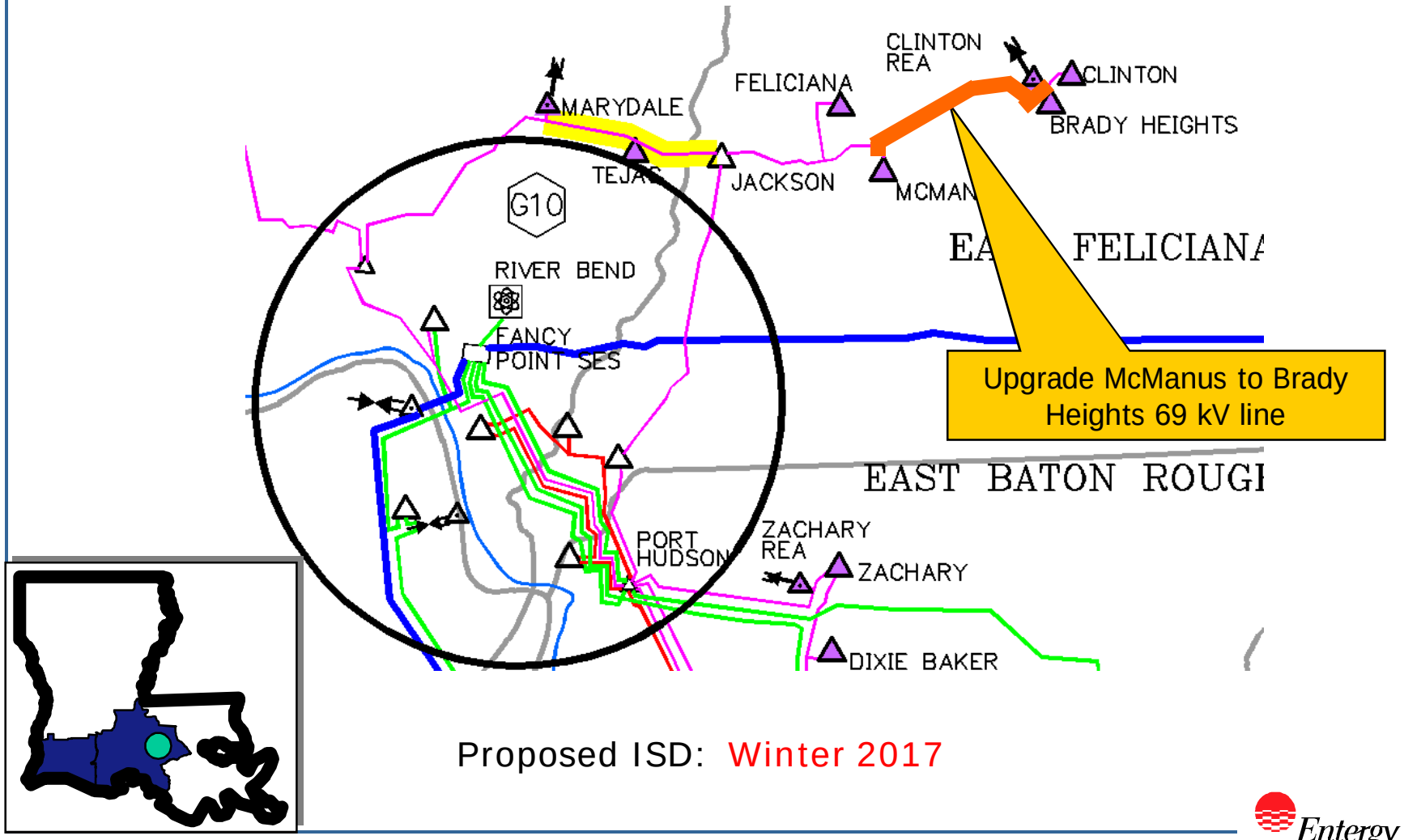
Recommended Solution:

- Upgrade 4.98 miles of 69 kV transmission line from McManus to Brady Heights to a minimum of 69MVA.

Proposed In-Service Date: Winter 2017

McManus to Brady Heights – Upgrade 69 kV Line

12-EGL-004-CP



Proposed ISD: Winter 2017

Harelson to Gloria – Upgrade 69 kV Line

11-EGL-002-CP

Scenario:

- By the summer of 2018 studies indicate that the loss of Coly to Polyform will result in the Harelson to Gloria 69 kV line exceeding its thermal rating.

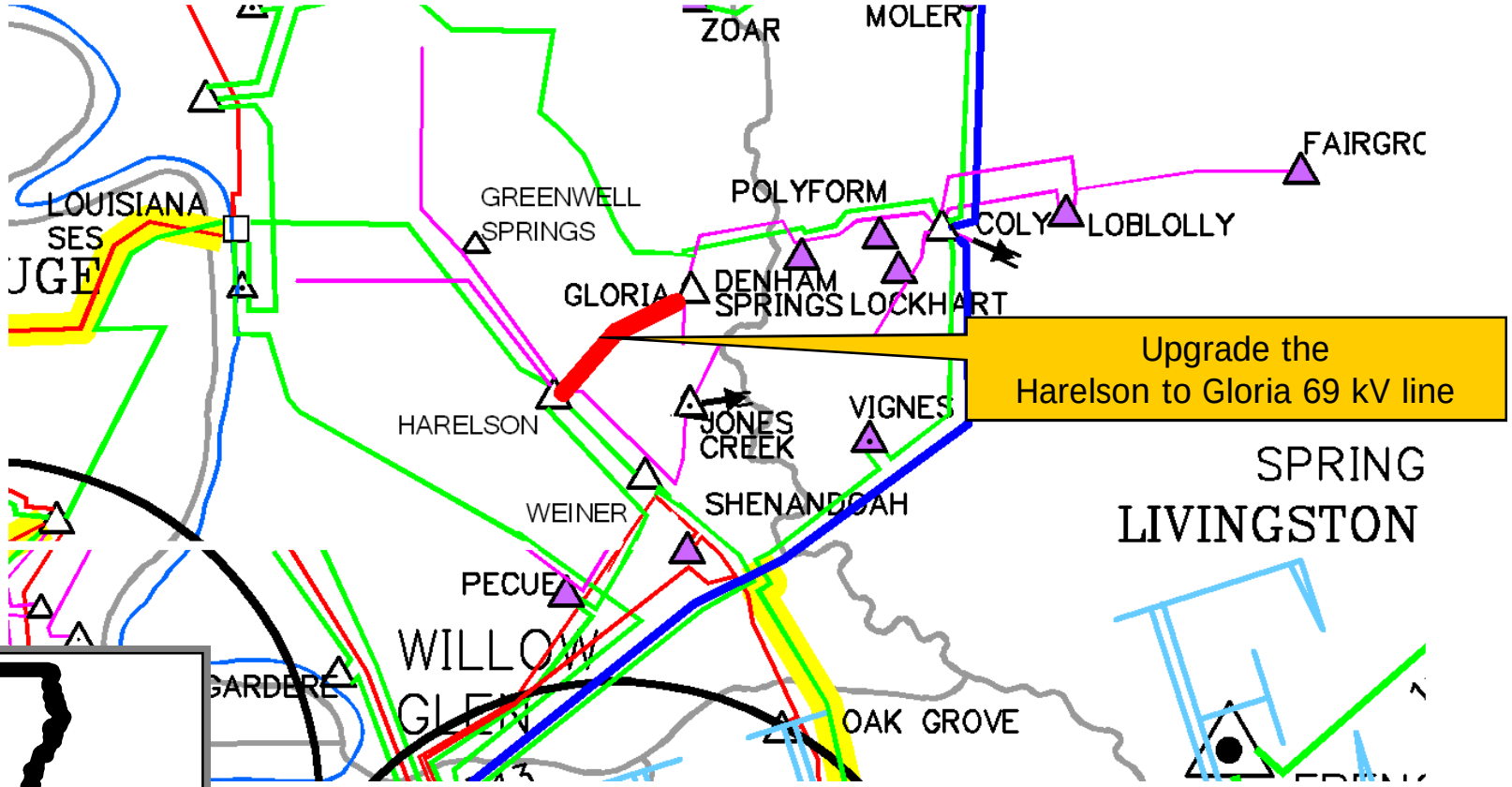
Recommended Solution:

- Upgrade the Harelson to Gloria 69 kV line to a minimum of 143 MVA to increase the thermal capacity of the line.

Proposed In-Service Date: Summer 2018

Harelson to Gloria – Upgrade 69 kV Line

11-EGL-002-CP



Proposed ISD: Summer 2018

Five Points to Line Tap 281 to Line 247 Tap Point – Upgrade 69 kV Line

11-EGL-017-CP

Scenario:

- By the winter of 2018 loss of the Moril 138-69 kV Auto-Transformer will result in the Five Points to Line Tap 281 to Line 247 Tap Point 69 kV line exceeding its thermal rating.

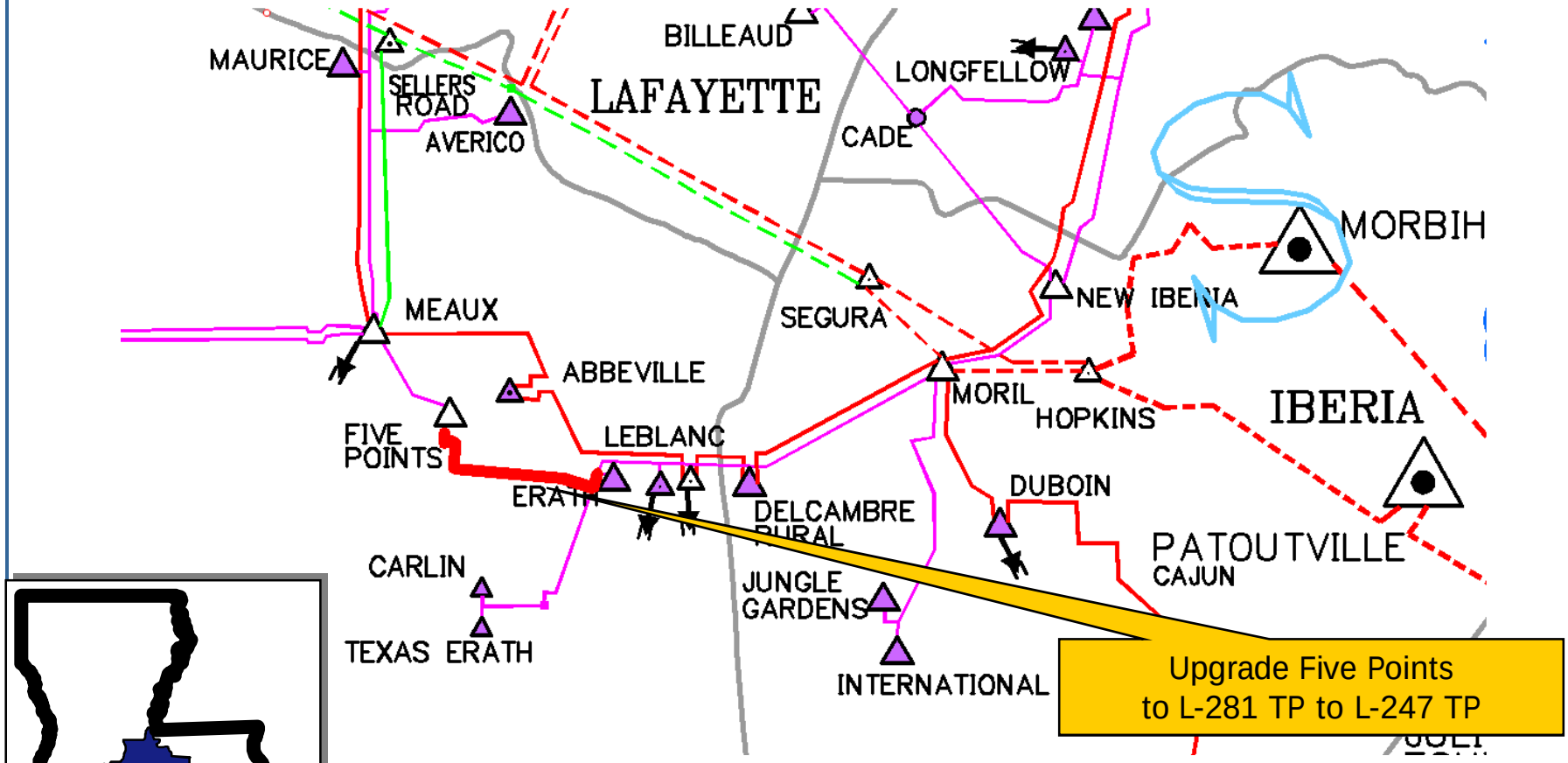
Recommended Solution:

- Upgrade both line segments and associated substation equipment in the electrical path as required to obtain a minimum 105 MVA rating of the complete circuit.

Proposed In-Service Date: Winter 2018

Five Points to Line Tap 281 to Line 247 Tap Point – Upgrade 69 kV Line

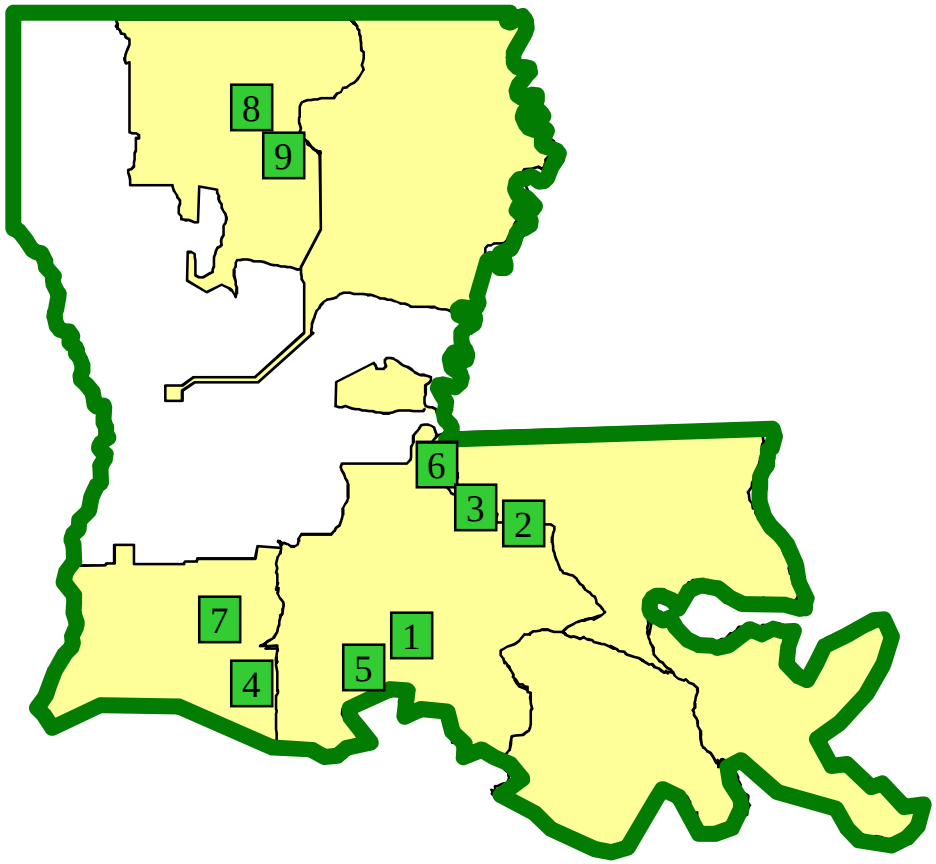
11-EGL-017-CP



Proposed ISD: Winter 2018

2013 – 2017 Draft Construction Plan Update 1
Horizon Projects 2018 and Beyond – Louisiana

1) New Iberia: Add 138-69 kV Autotransformer (2018)
2) Juban: Construct a new 230 kV Distribution substation (2020)
3) Harleson to 372A Tap: Upgrade line (2020)
4) Lake Arthur 69 kV: Move normally open point (2020)
5) Moril to Delcambre 138 kV line: Upgrade station equipment (2021)
6) Francis to Marydale: Upgrade 69 kV line (2023)
7) Serpent 69 kV Substation: Upgrade Capacitor bank to 11.2 MVAR (2023)
8) Mt Olive to Arcadia Project Phase 2: Construct new 230 kV line (operate at 115 kV) from Mt Olive to Arcadia (2020)
9) Vienna to Ruston Frazier Road 115 kV Line 173: Upgrade metering CTs at Ruston (2023)



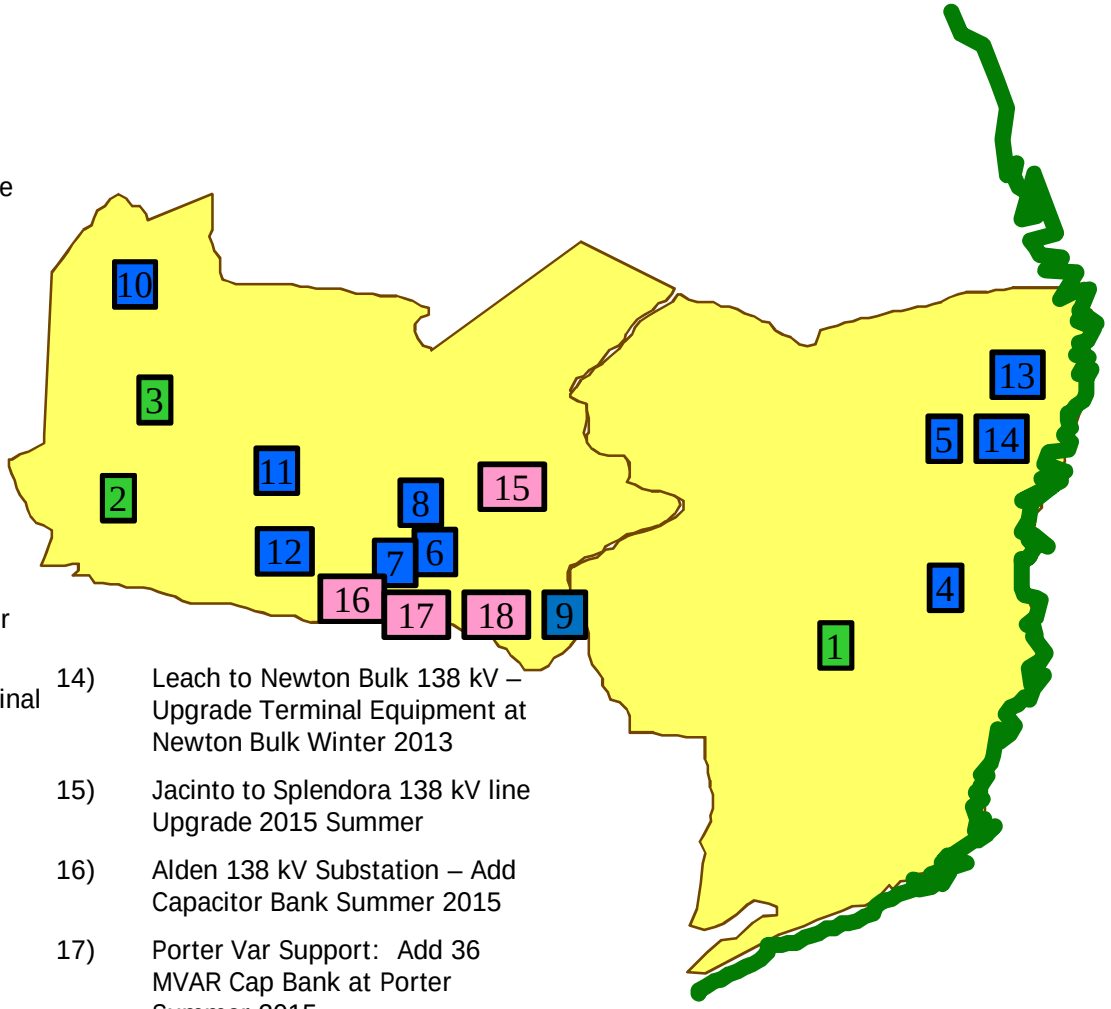
Entergy Texas, Inc.

Transmission

2013 – 2017 Draft Construction Plan Projects Update 1

2013 - 2017 ETI Construction Plan Projects Update 1

1) Elizabeth to Gallier- Upgrade 69 kV line 2012 Summer (complete)
2) Somerville 69 kV – Add Capacitor Bank 2012 Summer (complete)
3) College Station SS – Create Emergency tie point with ERCOT 2012 Fall
4) Deweyville (JNEC) 69 kV – Add Capacitor Bank 2013 Spring
5) Jasper to Rayburn 138 kV line Upgrade Summer 2013
6) Plantation to Conroe 138 kV – Upgrade Station Equipment 2013 Summer
7) Cedar Hill to Plantation 138 kV line – Upgrade line conductor and Station Equipment 2013 Summer
8) Plantation to Conroe 138 kV- Reconductor line 2013 Summer
9) Eastgate to Dayton Bulk – Upgrade Terminal Equipment at Eastgate 2013 Summer
10) Expand Capacitor Bank at Calvert 69 kV Summer 2013
11) Bentwater Substation 138 kV – Add Capacitor Bank Summer 2013
12) Ponderosa Switching Station – Tie lines Longmire to Fish Creek and Conroe to Woodhaven into new Switching Station Summer 2013
13) Toledo Bend to Leach 138 kV – Upgrade Station Equipment Winter 2013 (complete)



14) Leach to Newton Bulk 138 kV – Upgrade Terminal Equipment at Newton Bulk Winter 2013
15) Jacinto to Splendora 138 kV line Upgrade 2015 Summer
16) Alden 138 kV Substation – Add Capacitor Bank Summer 2015
17) Porter Var Support: Add 36 MVAR Cap Bank at Porter Summer 2015
18) New Caney: Expand Cap Bank Summer 2015

2012 ISD	2013 ISD	2014 ISD	2015 ISD	2016 ISD	2017 ISD	2018ISD

Entergy

2013 - 2017 ETI Construction Plan Projects Update 1

19) China to Amelia 230 kV – Construct New line Summer 2016

20) Hickory Ridge to Eastgate 138 kV – Upgrade Terminal Equipment at Eastgate Summer 2016

21) Splendora to Apollo 138 kV line Upgrade Summer 2016

22) Cut Line 871 Jacinto to Splendora 138 kV into Cleveland 138 kV Substation Summer 2017

23) Orange County 230 kV Project: New Chisholm Road 230 kV Substation, new line from Hartburg to Chisholm Road, new 500-230 kV Auto Summer 2017

24) Toledo Bend to Leach: Upgrade line conductor 2017 Summer

25) Sabine to Port Neches (Line 515): Reconductor line Summer 2017

26) Sabine: Upgrade terminal equipment (Sabine to Big 3 Line) Summer 2017

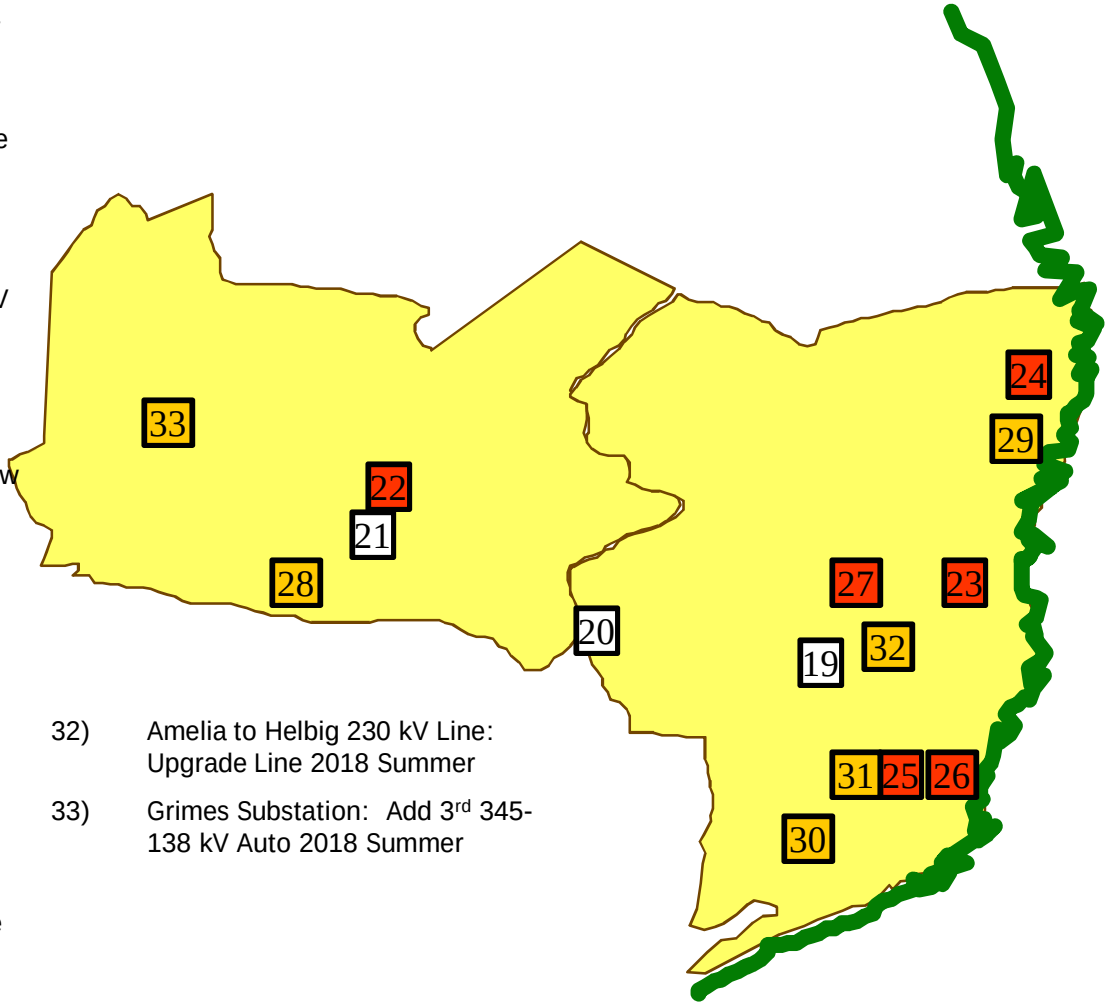
27) Cypress: Add 2nd 500/138 kV auto Summer 2017

28) WRRIP: Add Alden SVC 2018 Summer

29) Leach to Newton Bulk: Reconductor line Summer 2018

30) Construct new China to Stowell 138 kV line Summer 2018

31) Sabine to Port Neches (Line 516): Reconductor line Summer 2018



32) Amelia to Helbig 230 kV Line: Upgrade Line 2018 Summer

33) Grimes Substation: Add 3rd 345-138 kV Auto 2018 Summer

2012 ISD | 2013 ISD | 2014 ISD | 2015 ISD | 2016 ISD | 2017 ISD | 2018ISD

Entergy

Deweyville 69 kV: Add Capacitor Bank

11-ETI-003

Scenario:

- The single contingency loss of 69 kV Line 81 (Echo to Deweyville) causes low voltage at the Deweyville 69 kV substation (JNEC-owned).

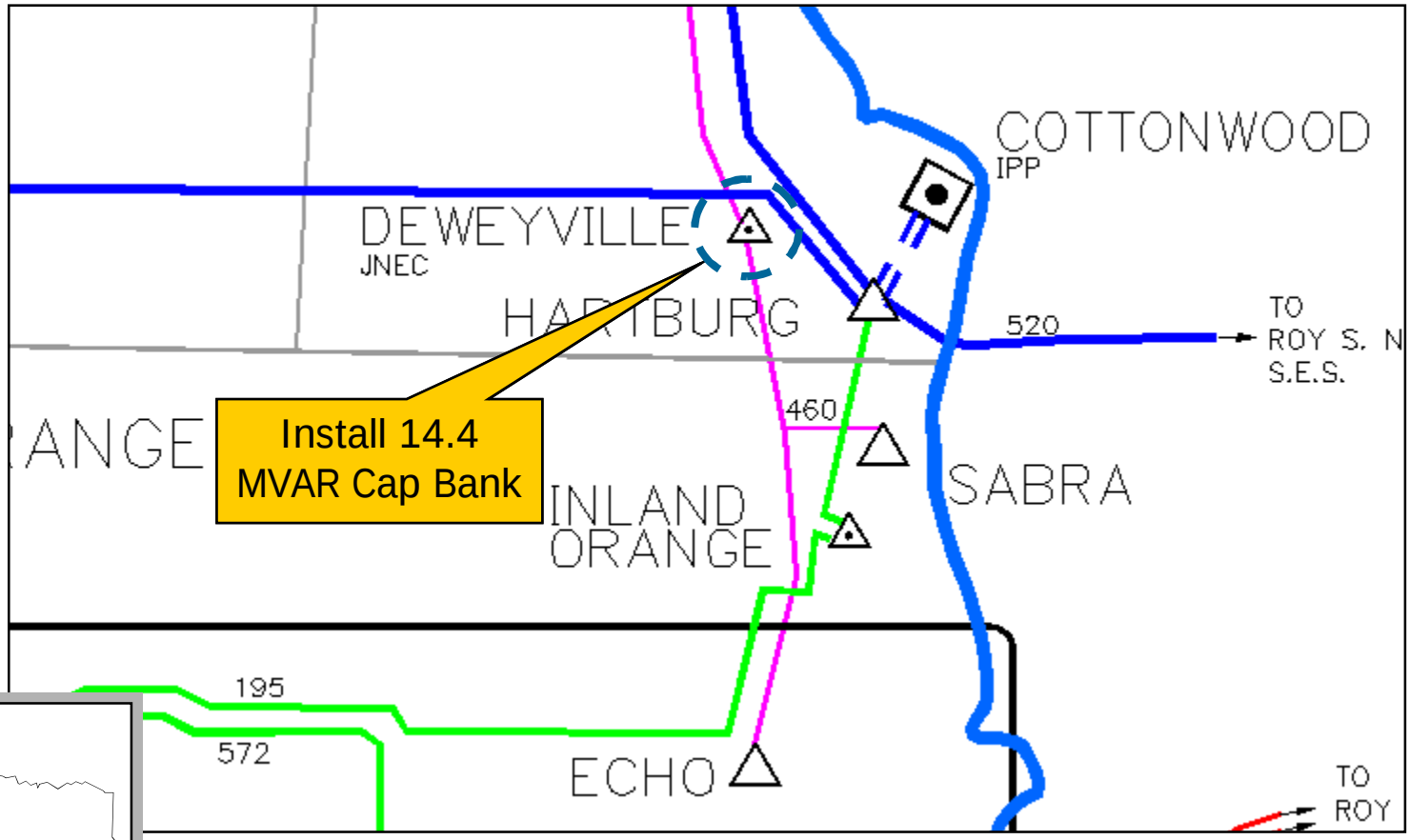
Proposed Solution:

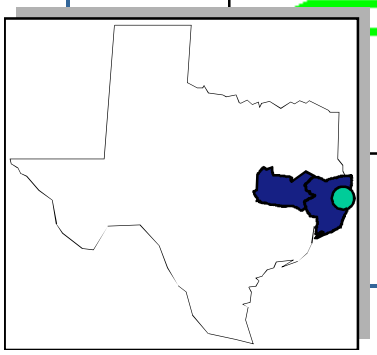
- Add a 14.4 MVAR capacitor bank at the Deweyville 69 kV substation.

Proposed In-Service Date: Spring 2013

Deweyville 69 kV: Add Capacitor Bank

11-ETI-003





Proposed In-Service: Summer 2012

Upgrade Jasper to Sam Rayburn 138 kV Line

10-ETI-017

Scenario:

- The single contingency outage of the Cypress-Hartburg 500 kV line causes an overload of the Jasper to Sam Rayburn 138 kV line

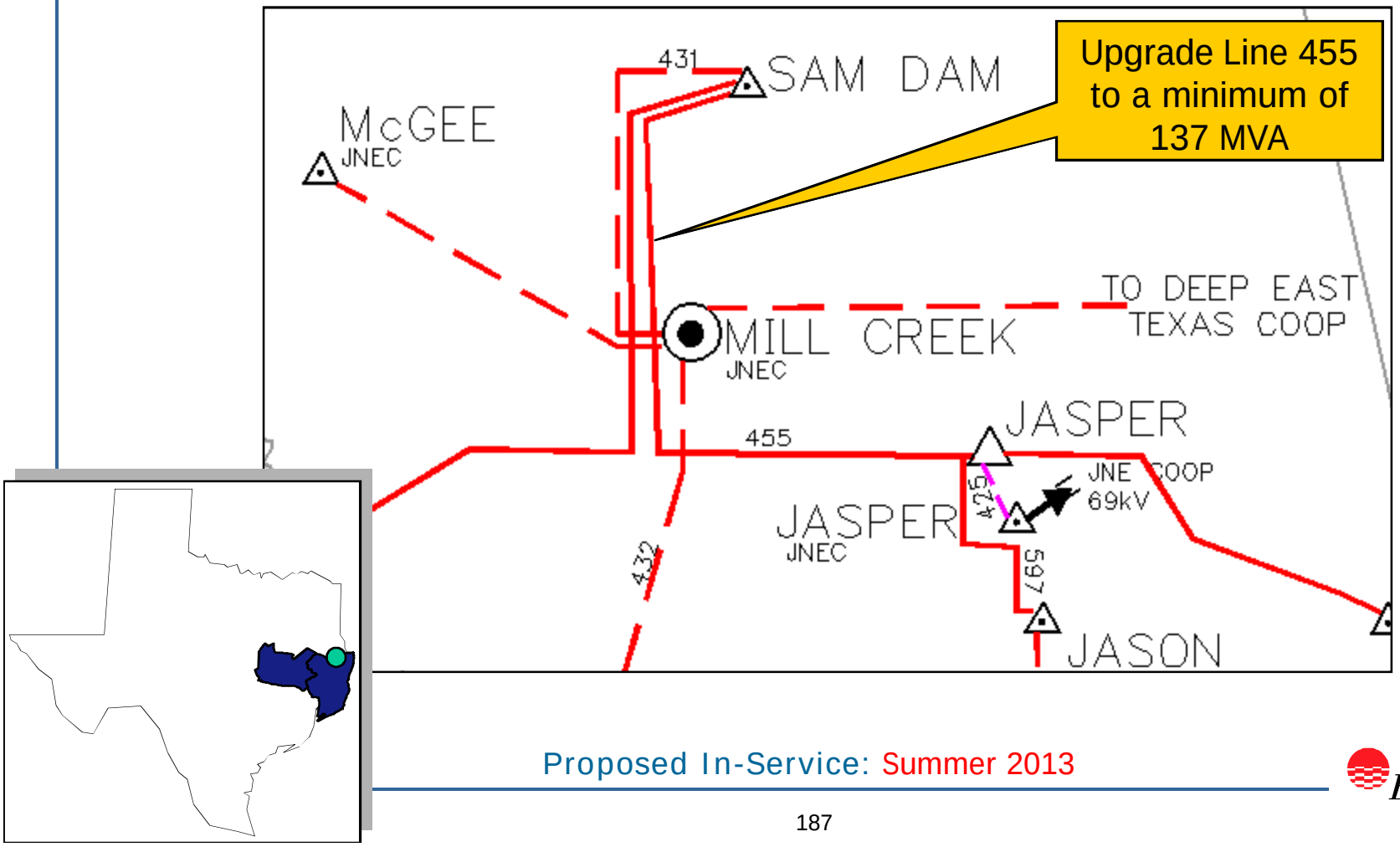
Proposed Solution:

- Replace about 24 structures and re-sag the Jasper to Sam Rayburn 138 kV line (approx. 13.5 miles) to achieve a minimum rating of 137 MVA (336.4 ACSR at 100℃). Structures will be designed for a future reconductor.

Proposed In-Service Date: Summer 2013

Upgrade Jasper to Sam Rayburn 138 kV Line

10-ETI-017



Proposed In-Service: Summer 2013

Cedar Hill to Plantation to Conroe 138 kV: Upgrade Conductor and Line

11-ETI-008, 11-ETI-036

Scenario:

- The single contingency loss of either 138 kV Line 169 (Metro to Oak Ridge) or 138 kV Line 582 (Oak Ridge to Porter) overloads the Cedar Hill to Plantation 138 kV line and the Plantation to Conroe 138 kV line.

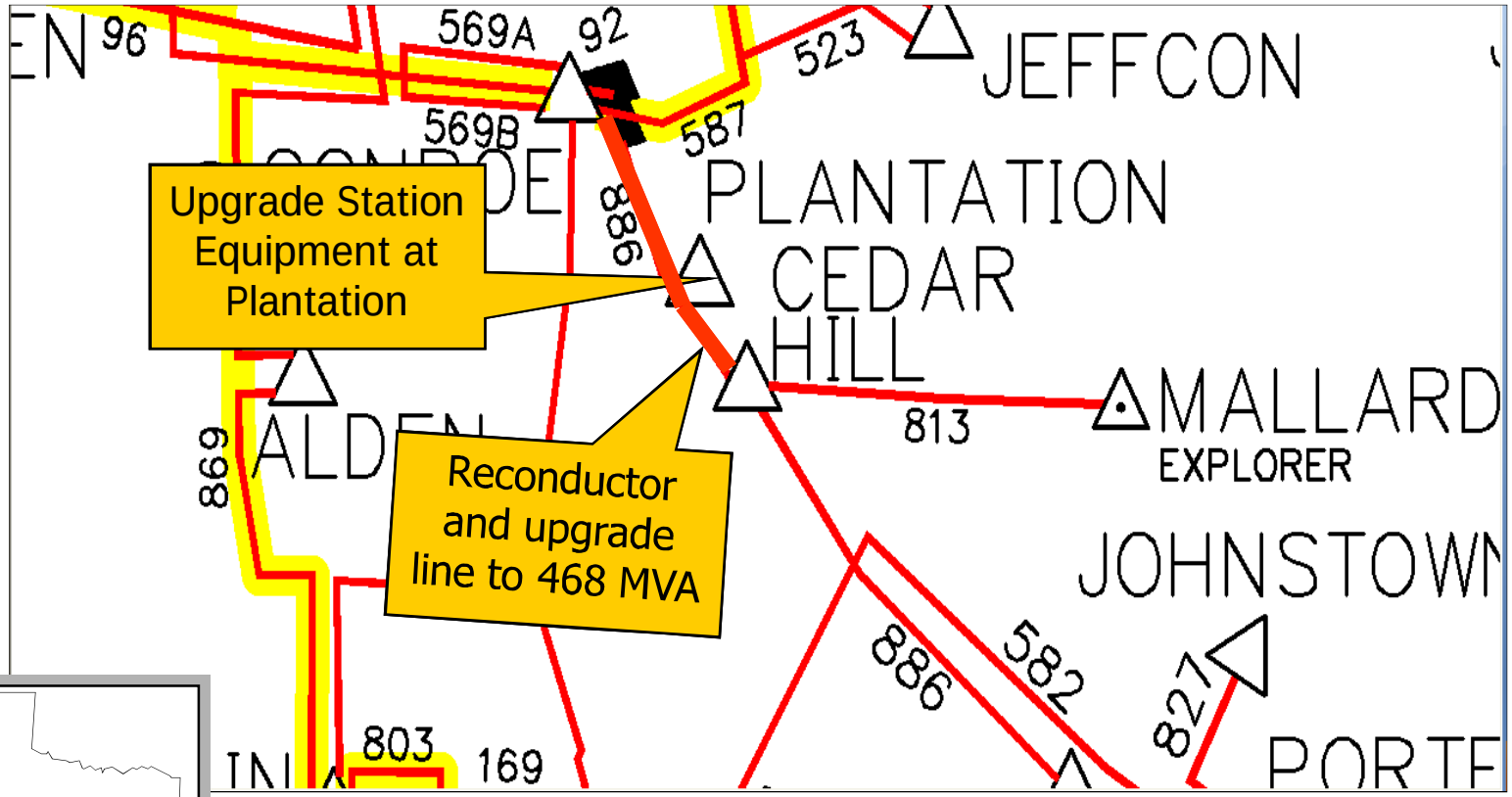
Proposed Solution:

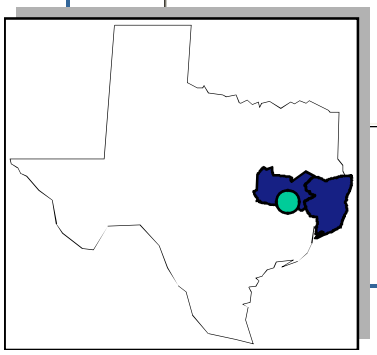
- Upgrade Line Conductor and Terminal Equipment from Cedar Hill to Plantation to Conroe to a minimum of 468 MVA (bundled 954 ACSR)
- Upgrade station equipment at Plantation to increase the line rating of the Plantation to Conroe line to the proposed line conductor.

Proposed In-Service Date: Summer 2013

Cedar Hill to Plantation to Conroe 138 kV: Upgrade Conductor and Line

11-ETI-008 , 11-ETI-036





Proposed In-Service: Summer 2013

Entergy

Hickory Ridge to Eastgate to Dayton Bulk – Upgrade terminal equipment

11-ETI-041, 11-ETI-020

Scenario:

- Loss of the Porter 230/138 kV Autotransformer coupled with the loss of Lewis Creek U1 generation causes an overload of the Dayton Bulk to Eastgate 138 kV line in 2013 and the Eastgate to Hickory Ridge 138 kV line in 2016. Both lines are limited by substation equipment at Eastgate.

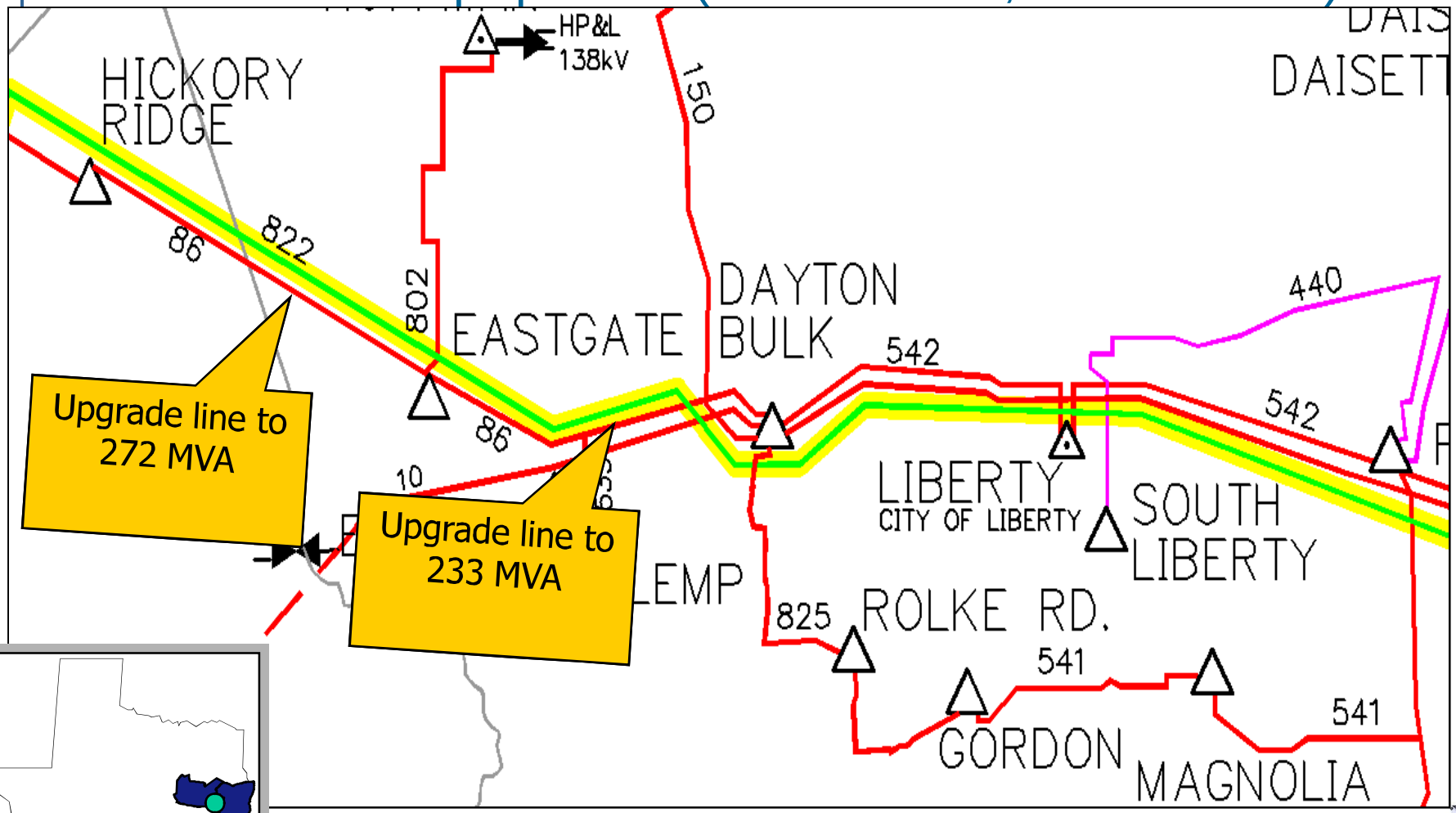
Proposed Solution:

- Replace 500 CU on Transmission line and on line bay riser at Eastgate to allow Eastgate to Dayton to increase to 233 MVA. Replace 500 CU on Hickory Ridge line bay riser to upgrade Hickory Ridge – Eastgate to 272 MVA.

Proposed In-Service Date: Summer 2013 and Summer 2016.

Note: All work expected to be completed in 2013.

Hickory Ridge to Eastgate to Dayton Bulk – Upgrade Terminal Equipment (11-ETI-041, 11-ETI-020)



Proposed In-Service: Summer 2013 and 2016

Install Second Cap Bank at Calvert

11-ETI-043

Scenario:

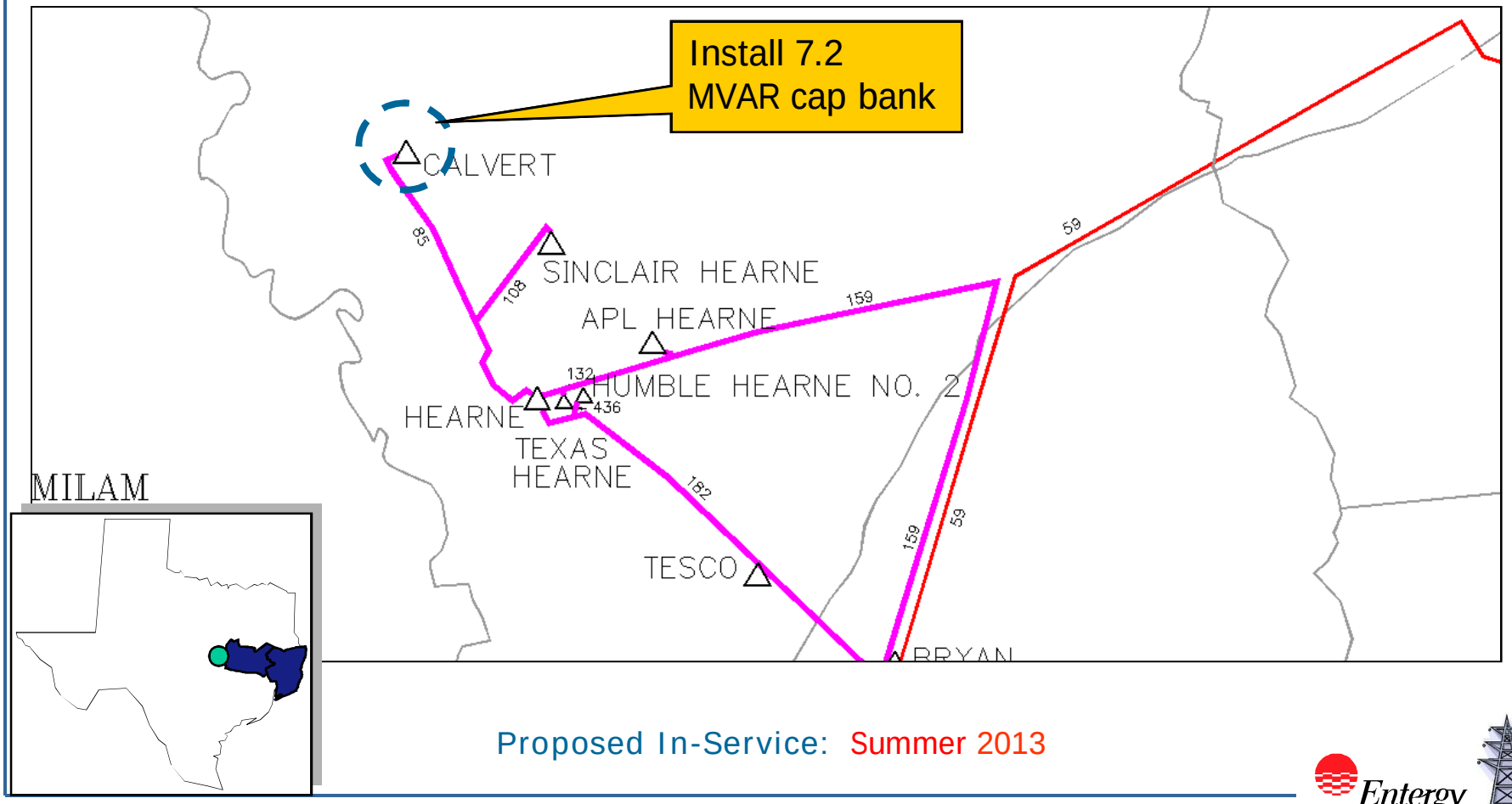
- Calvert 69 KV substation experiences low voltage in the base case basis (N-0).

Proposed Solution:

- Install a second 7.2 MVAR Cap Bank.

Proposed In-Service Date: Summer 2013

Install Second Cap Bank at Calvert
11-ETI-043



Proposed In-Service: Summer 2013

Bentwater 138 kV Substation – Add Capacitor Bank

12-ETI-003

Scenario:

- Studies indicate that loss of the Grimes to Bentwater 138 kV transmission line will result in low voltage violations at Bentwater, Walden, April and Lake Forest 138 kV substation.

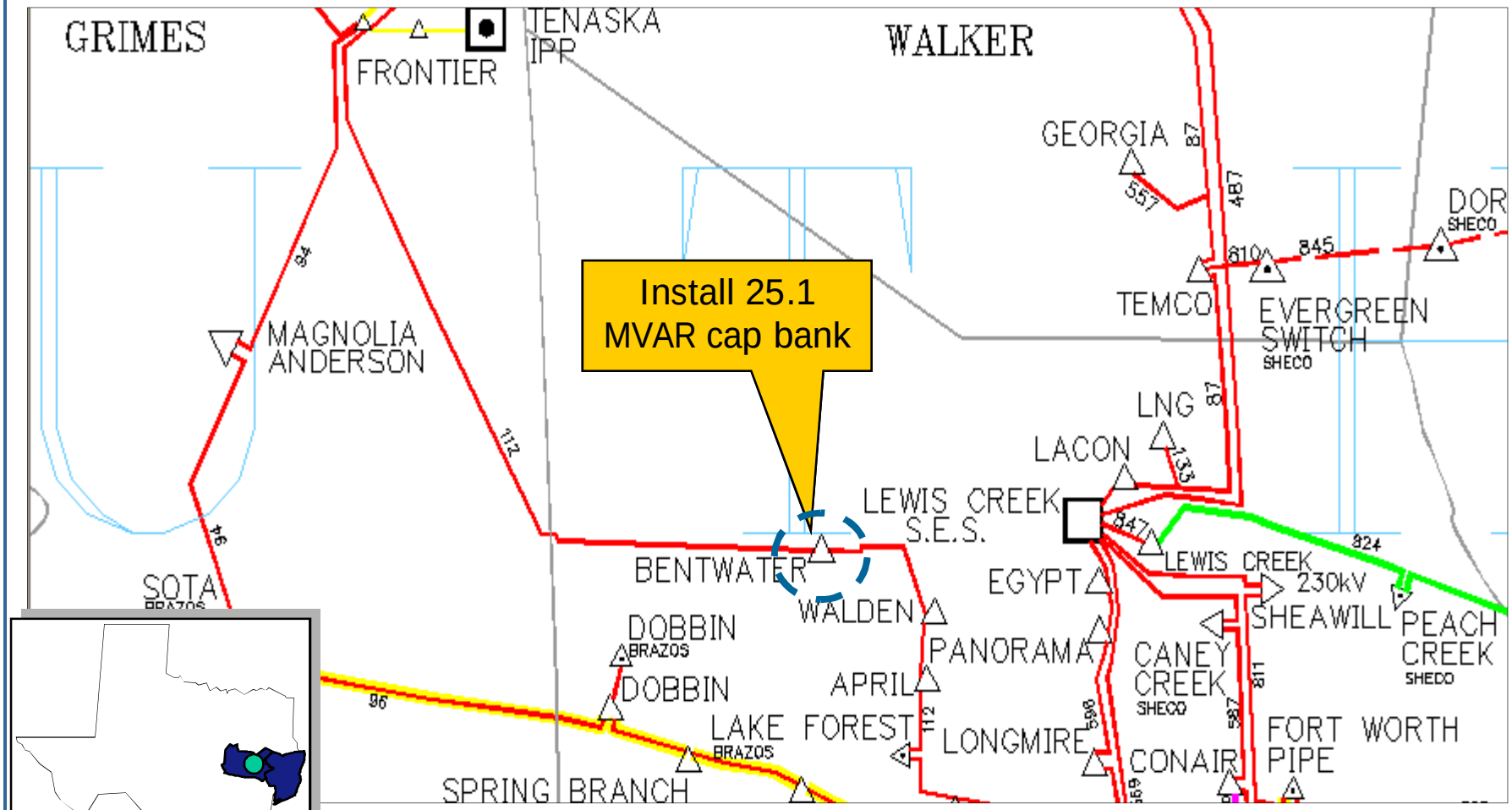
Proposed Solution:

- Add a 25.1 MVAR capacitor bank at the Bentwater 138 kV substation.

Proposed In-Service Date: Summer 2013

Bentwater 138 kV Substation – Add Capacitor Bank

12-ETI-003



Proposed In-Service: Summer 2013

Ponderosa Switching Substation

12-ETI-004

Scenario:

- Loss of the Lewis Creek-Longmire 138 kV line 596 results in overload of the Tubular-Dobbin 138 kV line segment in addition to future voltage violations at Navasota, Sota, Dobbin, Tubular, Fish Creek, Spring Branch and Longmire for an N-1, G-1 Scenario.

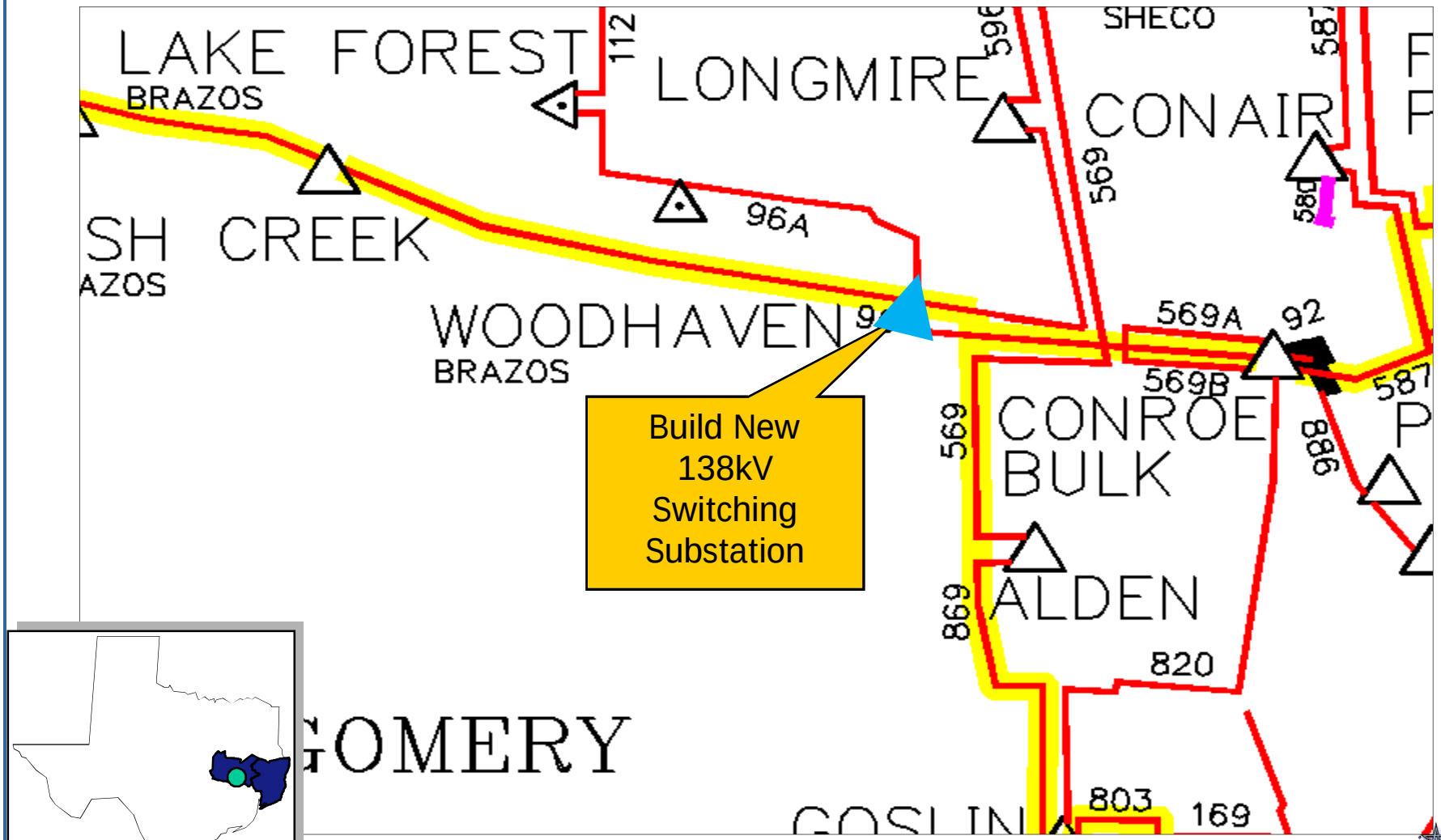
Proposed Solution:

- Install a 138 kV switching substation (4 breaker ring bus) where the Longmire-Fish Creek 138 kV line parallels the Conroe-Woodhaven 138 kV line. Cut in both lines leaving space for a future 230/138 kV Autotransformer.

Proposed In-Service Date: Summer 2013

Ponderosa Switching Substation

12-ETI-004



Proposed In-Service: Summer 2013

Entergy

Upgrade Jacinto – Splendora 138 kV line

11-ETI-039

Scenario:

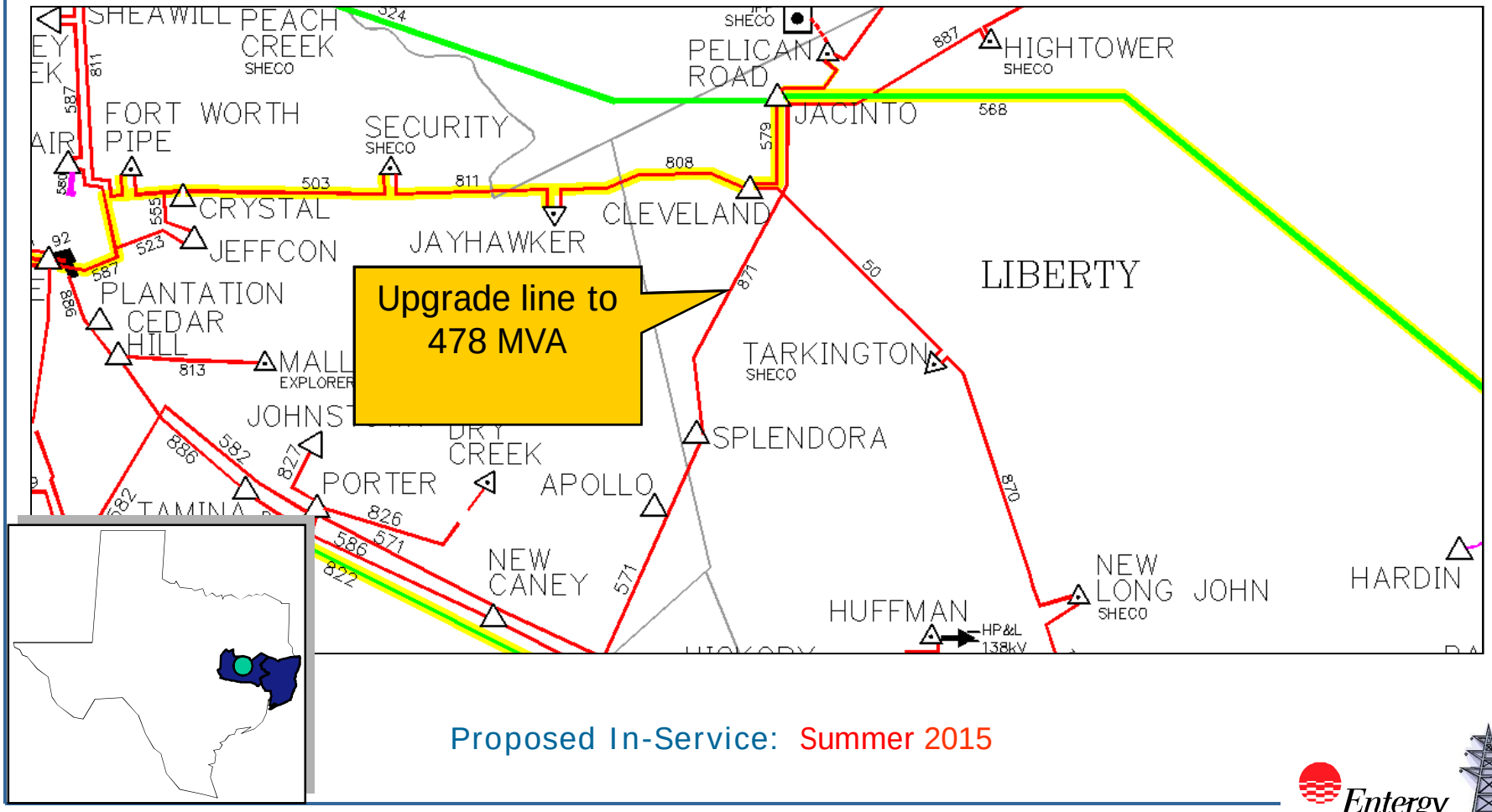
- Loss of the China to Porter 230 kV line coupled with the loss of the Lewis Creek Unit 1 causes the Jacinto to Splendora line to overload.

Proposed Solution:

- Reconductor line with bundled 954 ACSR and upgrade all substation equipment to achieve a minimum line rating of 478 MVA (2000 amps)

Proposed In-Service Date: Summer 2015

Upgrade Jacinto – Splendora 138 kV line 11-ETI-039



Proposed In-Service: Summer 2015

Alden 138 kV substation – Add 50.4 MVAR Cap Bank

12-ETI-007

Scenario:

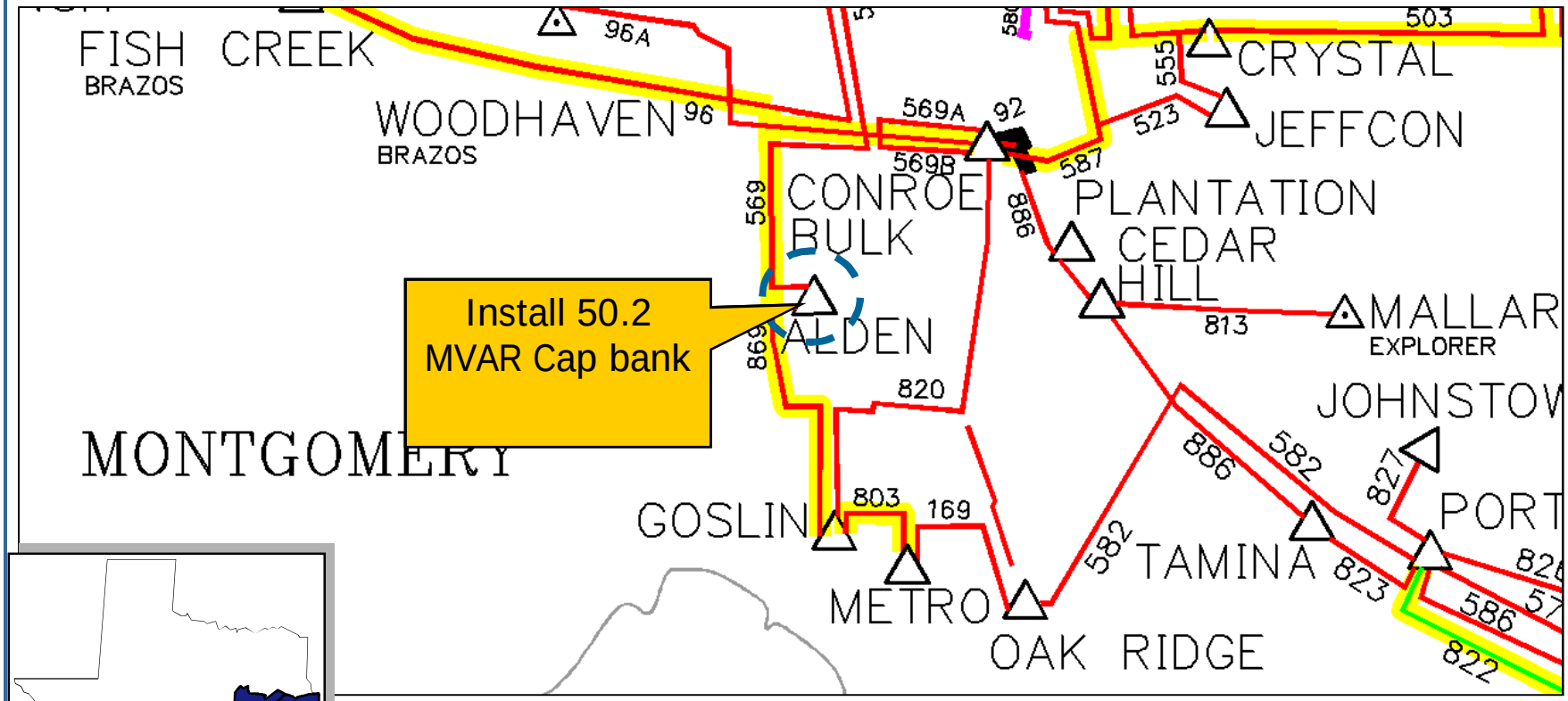
- Loss of the China to Porter 230 kV line coupled with the loss of the Lewis creek unit 1 causes low voltage on the Alden 138 kV bus.

Proposed Solution:

- Install a 50.4 MVAR Capacitor bank on the Alden 138 kV bus.

Proposed In-Service Date: Summer 2015

Alden 138 kV substation – Add 50.4 MVAR Cap Bank
12-ETI-007



Proposed In-Service: Summer 2015

Porter VAR Support – Add 36 MVAR Cap Bank at Porter 138 kV

13-ETI-001

Scenario:

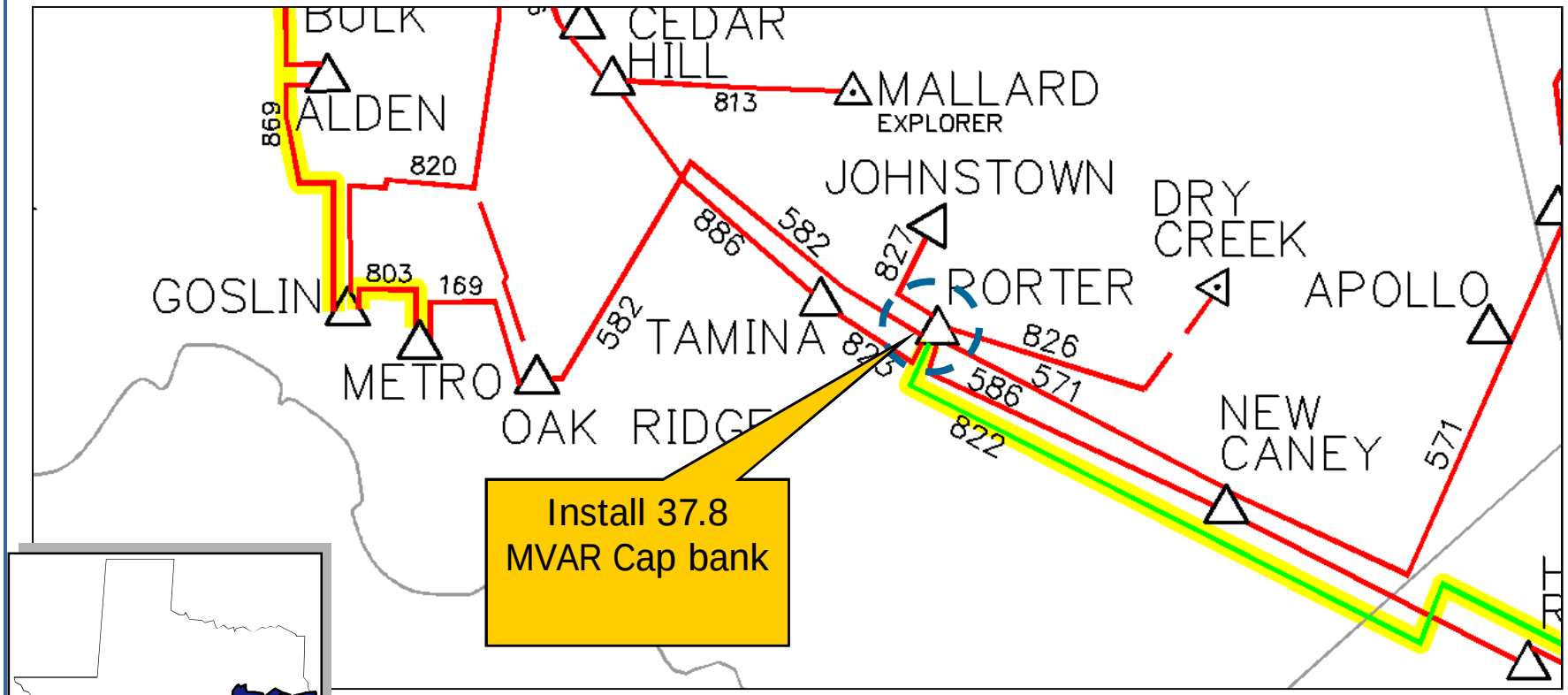
- Loss of the Porter SVC coupled with the loss of the Lewis Creek unit 1 causes low voltage on the Porter 138 kV bus.

Proposed Solution:

- Install a second 37.8 MVAR Capacitor bank on the Porter 138 kV bus.

Proposed In-Service Date: Summer 2015

Porter VAR Support – Add 36 MVAR Cap Bank at Porter 138 kV 13-ETI-001



Proposed In-Service: Summer 2015

New Caney 138 kV Bus– Expand Cap Bank (add 36 MVAR)

11-ETI-042

Scenario:

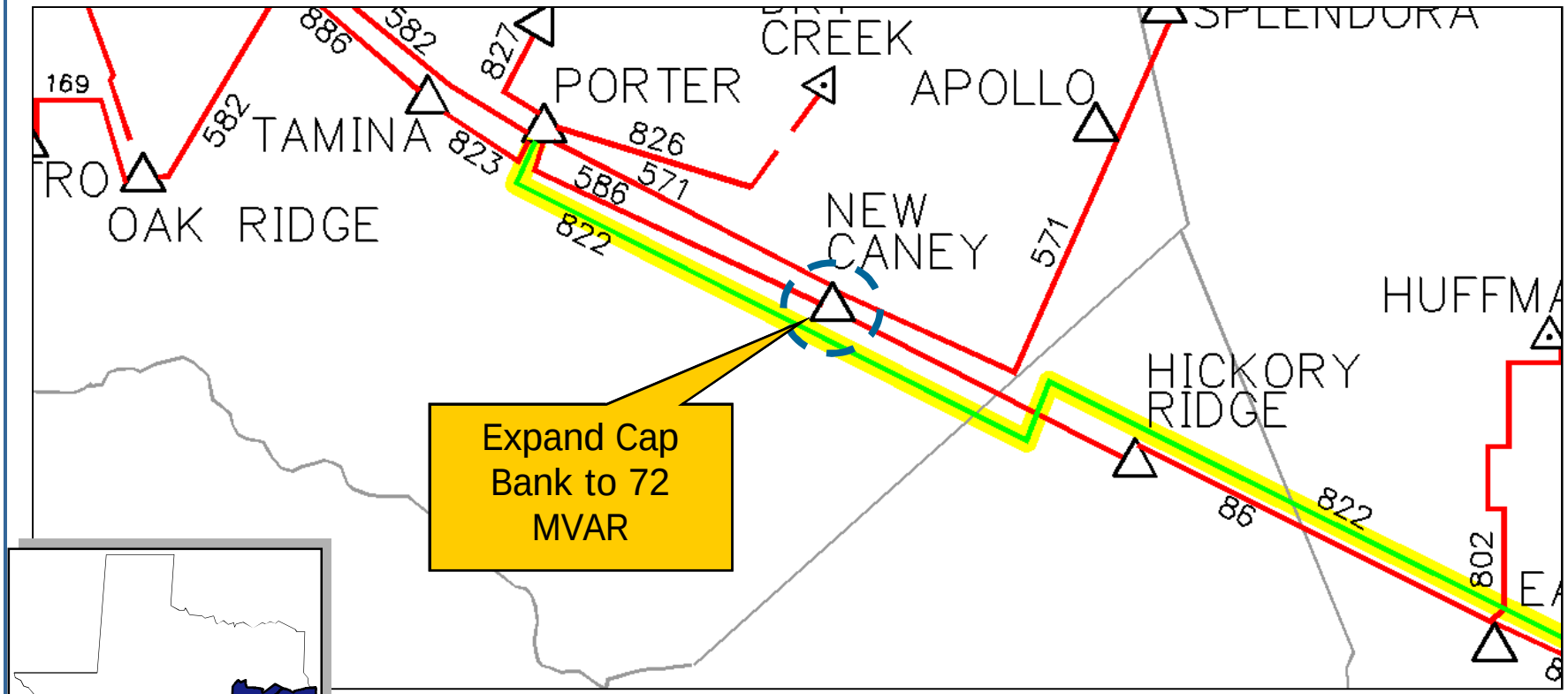
- Loss of the Porter to New Caney 138 kV line causes low voltage on the New Caney 138 kV bus.

Proposed Solution:

- Expand the Cap Bank on the New Caney 138 kV bus from 36 MVAR to 72 MVAR

Proposed In-Service Date: Summer 2015

New Caney 138 kV Bus– Expand Cap Bank (add 36 MVAR)
11-ETI-042



Proposed In-Service: Summer 2015

China – Amelia 230 kV– Construct New Line

11-ETI-018

Scenario:

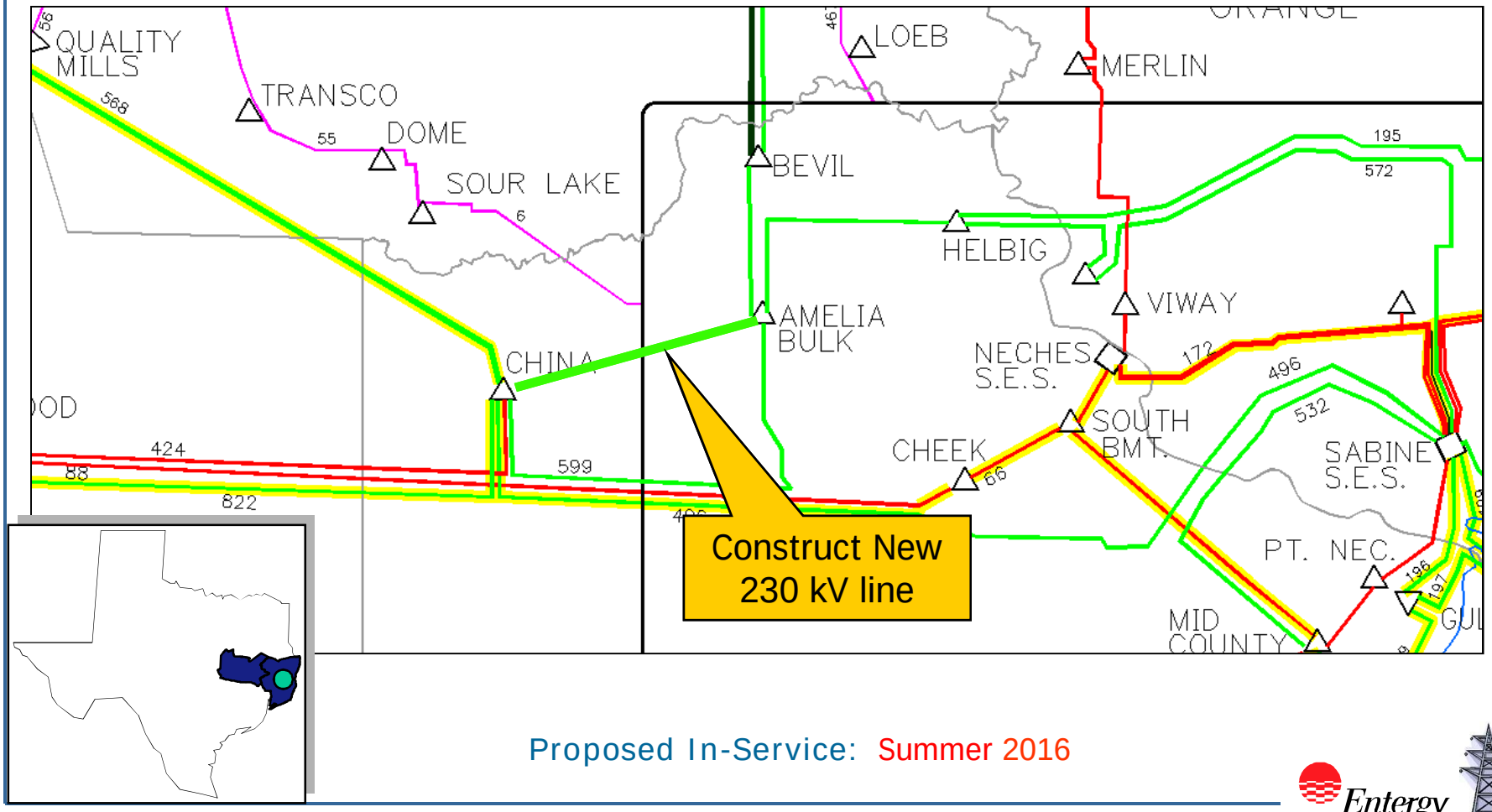
- Loss of the China – Sabine 230 line 496 or the China – Amelia 230 kV line 599 causes the remaining line to overload.

Proposed Solution:

- Construct a new China to Amelia 230 kV line utilizing a different route.

Proposed In-Service Date: Summer 2016

China – Amelia 230 kV– Construct New Line
11-ETI-018



Proposed In-Service: Summer 2016

Splendora to Apollo 138 kV– Upgrade Line

11-ETI-026

Scenario:

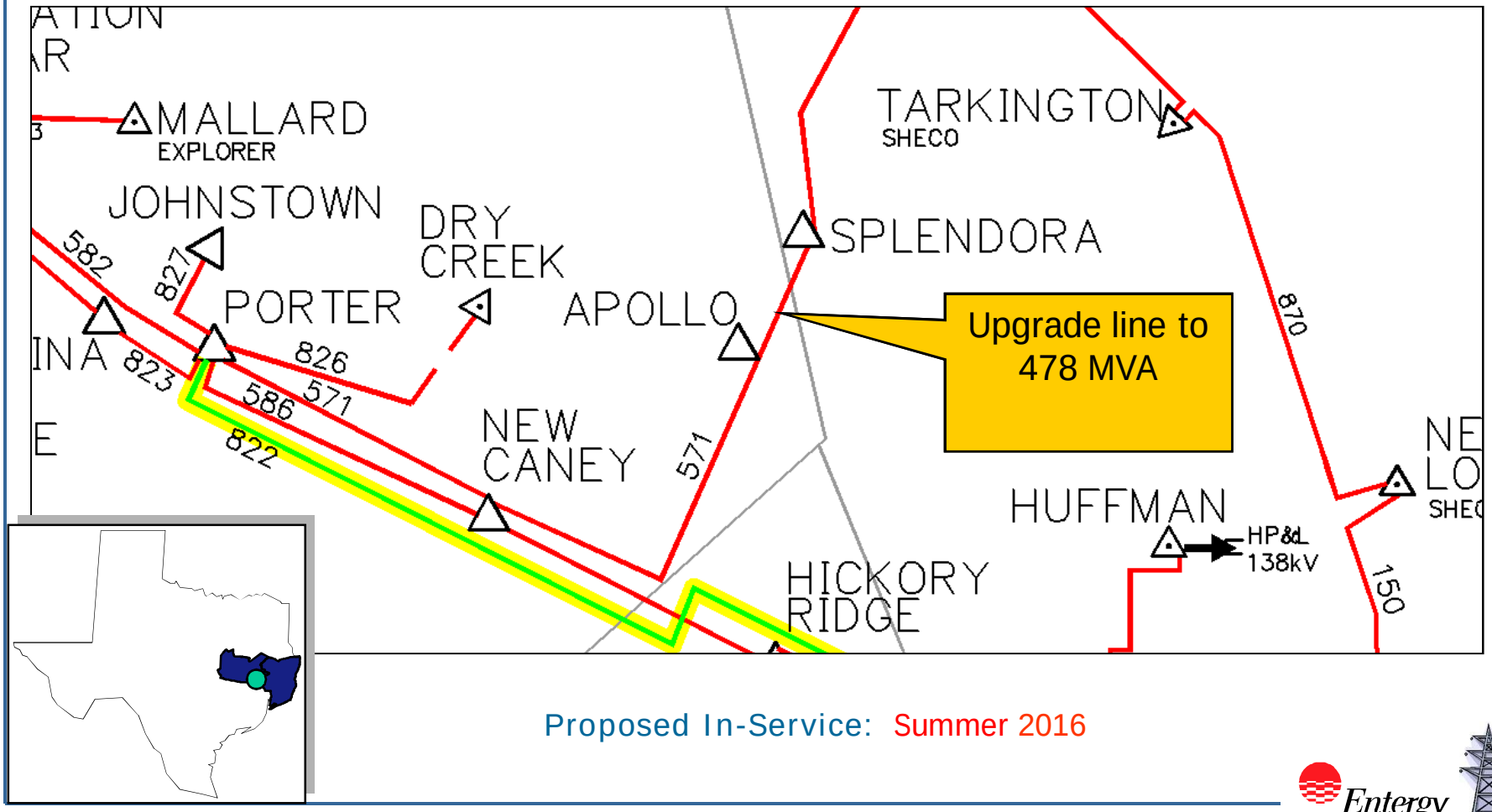
- Loss of the Porter - China 230 line 822 causes an overload of the Splendora to Apollo 138 kV line 571.

Proposed Solution:

- Reconductor approximately 2.67 miles of conductor and upgrade bus and line bay risers at Apollo and Splendora to achieve minimum rating of 2000 amps (478 MVA).

Proposed In-Service Date: Summer 2016

Splendora to Apollo 138 kV– Upgrade Line
11-ETI-026



Proposed In-Service: Summer 2016

Cut Cleveland 138 kV Bus into 138 kV line 871 (Jacinto to Splendora)

11-ETI-019

Scenario:

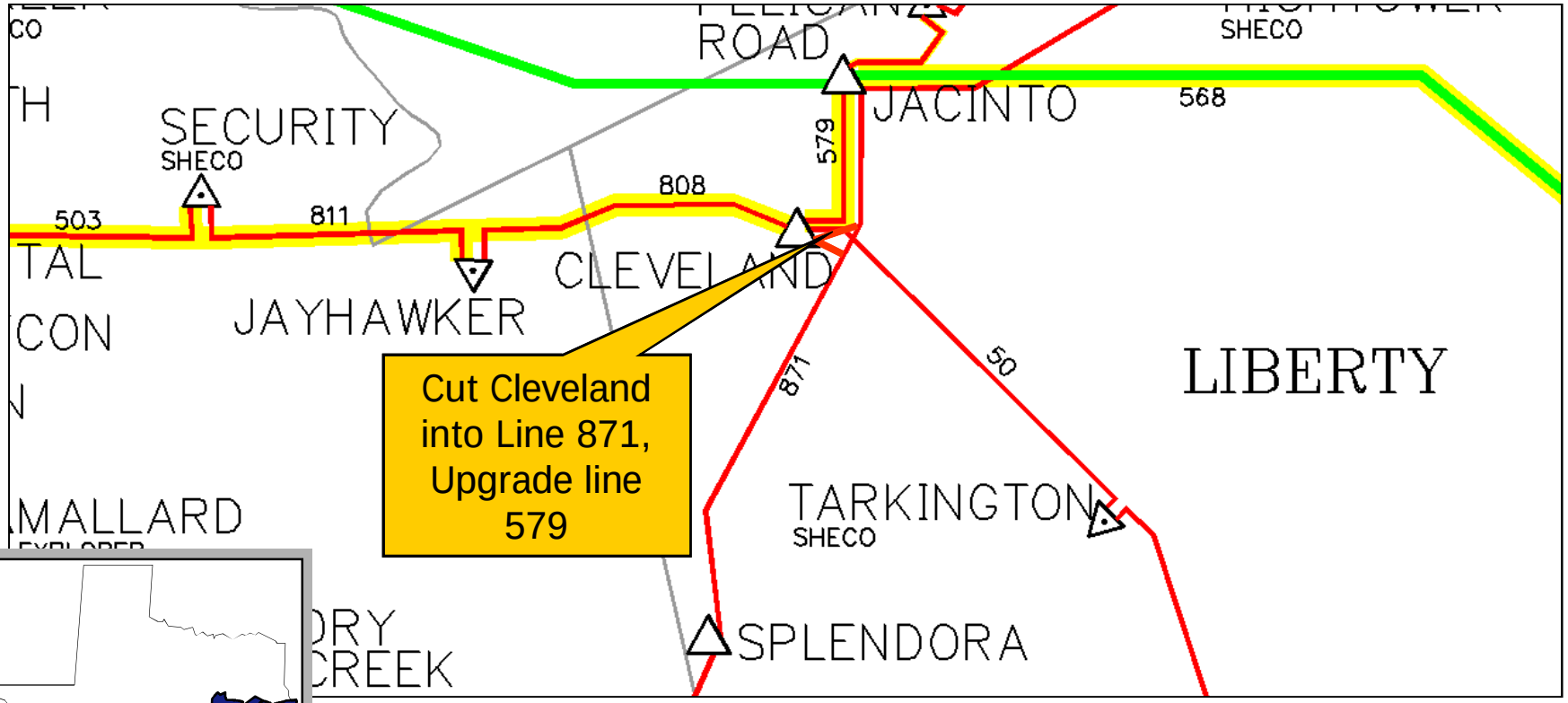
- The loss of the Cleveland to Jacinto 138 kV line 579 overloads the Dayton Bulk to New Long John 138 kV line 150.

Proposed Solution:

- Cut the Jacinto – Splendora 138 kV line 871 into the Cleveland 138 kV substation maintaining a line rating of 2000 amps (478 MVA). Upgrade line bay risers at Cleveland to Jacinto on existing line 529 to increase rating to 1200 amps (287MVA).

Proposed In-Service Date: Summer 2017

Cut Cleveland 138 kV Bus into 138 kV line 871 (Jacinto to Splendora) 11-ETI-019



Proposed In-Service: Summer 2017

Orange County Project

11-ETI-023

Scenario:

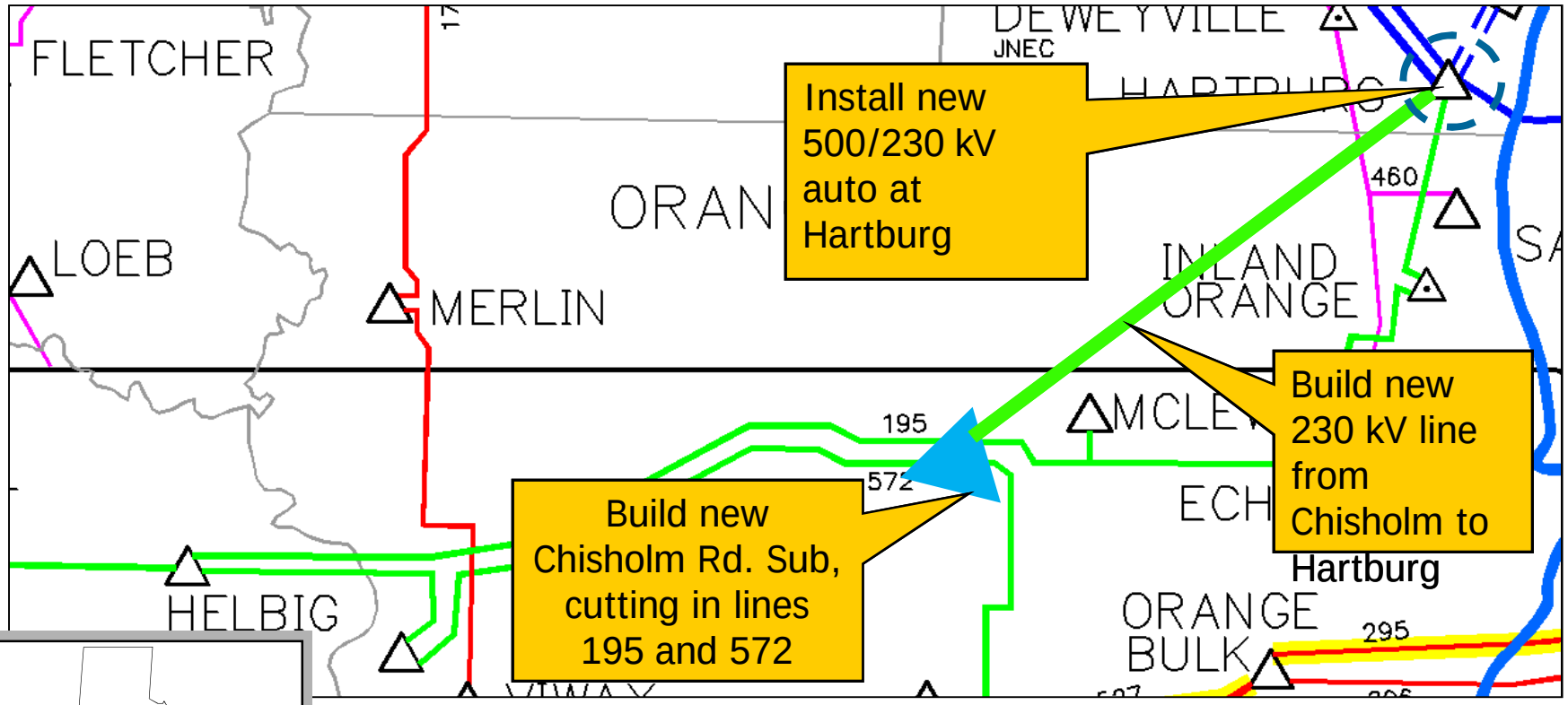
- The loss of the Cypress to Hartburg 500 kV line 547 overloads the Hartburg 500/230 kV autotransformer and the Hartburg – Inland Orange – McLewis 230 line 195.

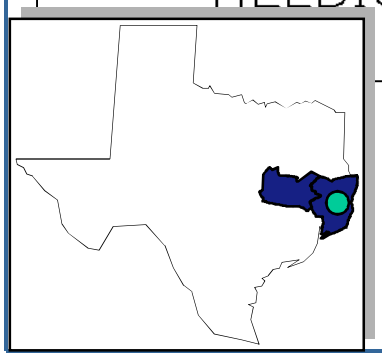
Proposed Solution:

- Construct a new 230 kV substation (Chisholm Road) at the intersection of 230 lines 195 (Hartburg – Helbig) and 572 (Georgetown – Sabine). Install a new 500/230 kV autotransformer at Hartburg and build a new 230 kV line from Chisholm Road to Hartburg.

Proposed In-Service Date: Summer 2017

Orange County Project
11-ETI-023





Proposed In-Service: Summer 2017

Toledo Bend to Leach 138 kV– Upgrade Line

11-ETI-033

Scenario:

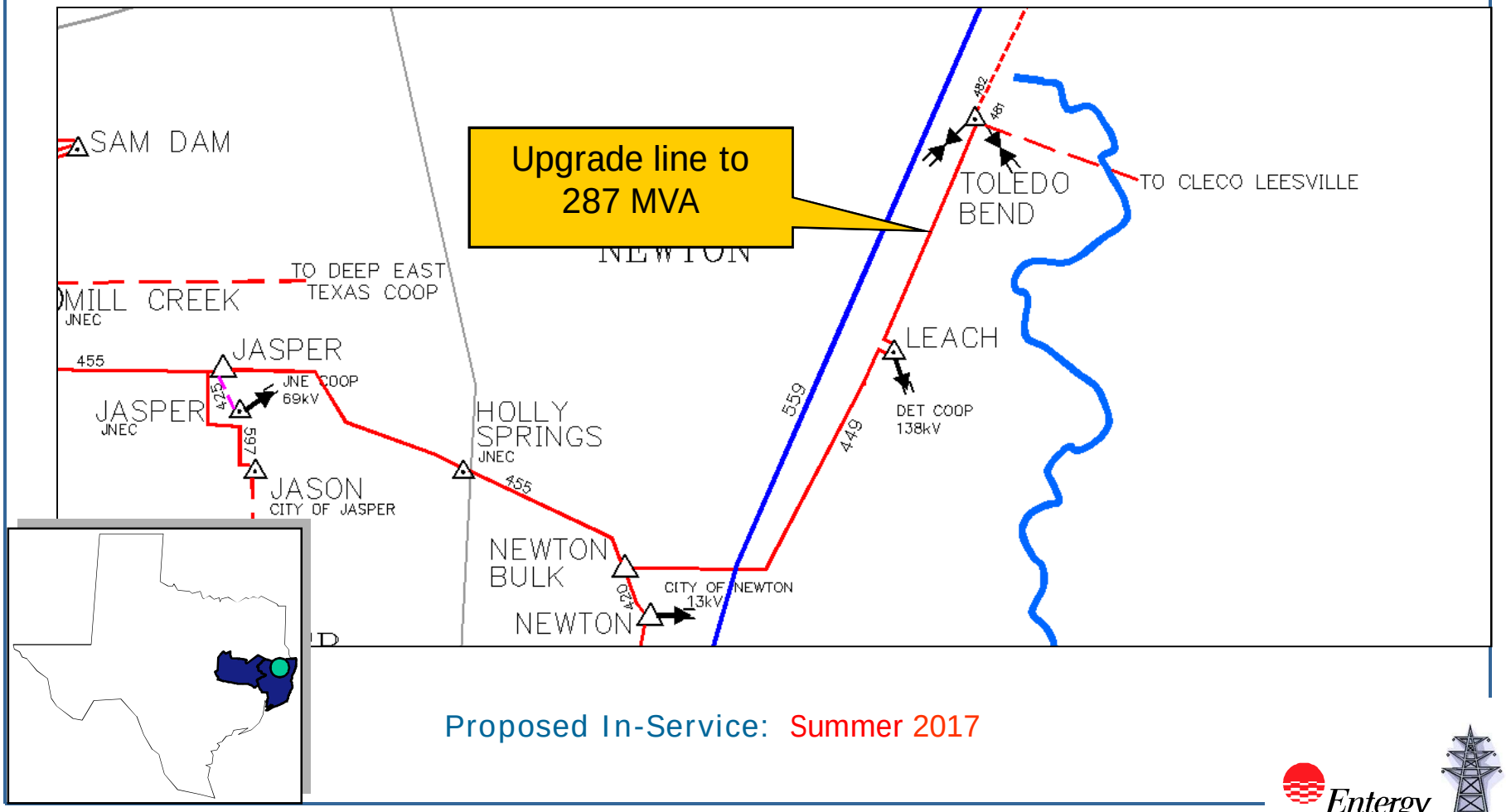
- Loss of the Cypress to Hartburg 500 kV line 547 causes an overload of the Toledo Bend to Leach 138 kV line 449.

Proposed Solution:

- Reconductor approximately 2.26 miles of conductor and replace all underrated equipment at Toledo Bend and Leach to achieve minimum rating of 1200 amps (287 MVA).

Proposed In-Service Date: Summer 2017

Toledo Bend to Leach 138 kV– Upgrade Line 11-ETI-033



Proposed In-Service: Summer 2017

Sabine to Port Neches 138 kV 515– Upgrade Line

11-ETI-002

Scenario:

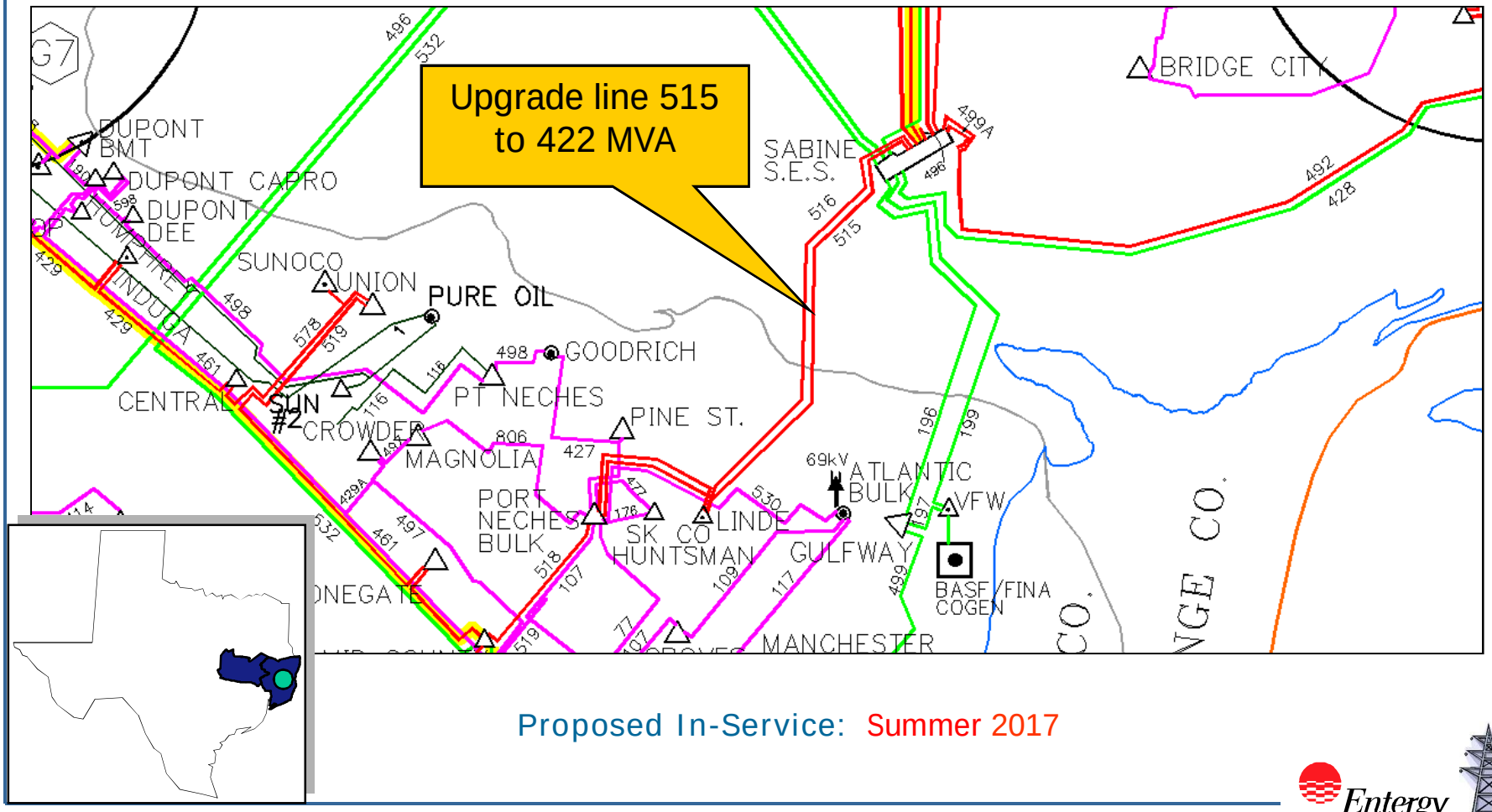
- Loss of the Sabine to Port Neches 138 kV line 516 causes an overload of the Sabine to Port Neches 138 kV line 515.

Proposed Solution:

- Reconductor approximately 7.2 miles of conductor and replace all underrated equipment at Sabine and Port Neches to achieve minimum rating of 1764 amps (422 MVA).

Proposed In-Service Date: Summer 2017

Sabine to Port Neches 138 kV 515– Upgrade Line 11-ETI-002



Proposed In-Service: Summer 2017

Sabine: Upgrade Terminal Equipment on Big 3 230 kV line

12-ETI-009

Scenario:

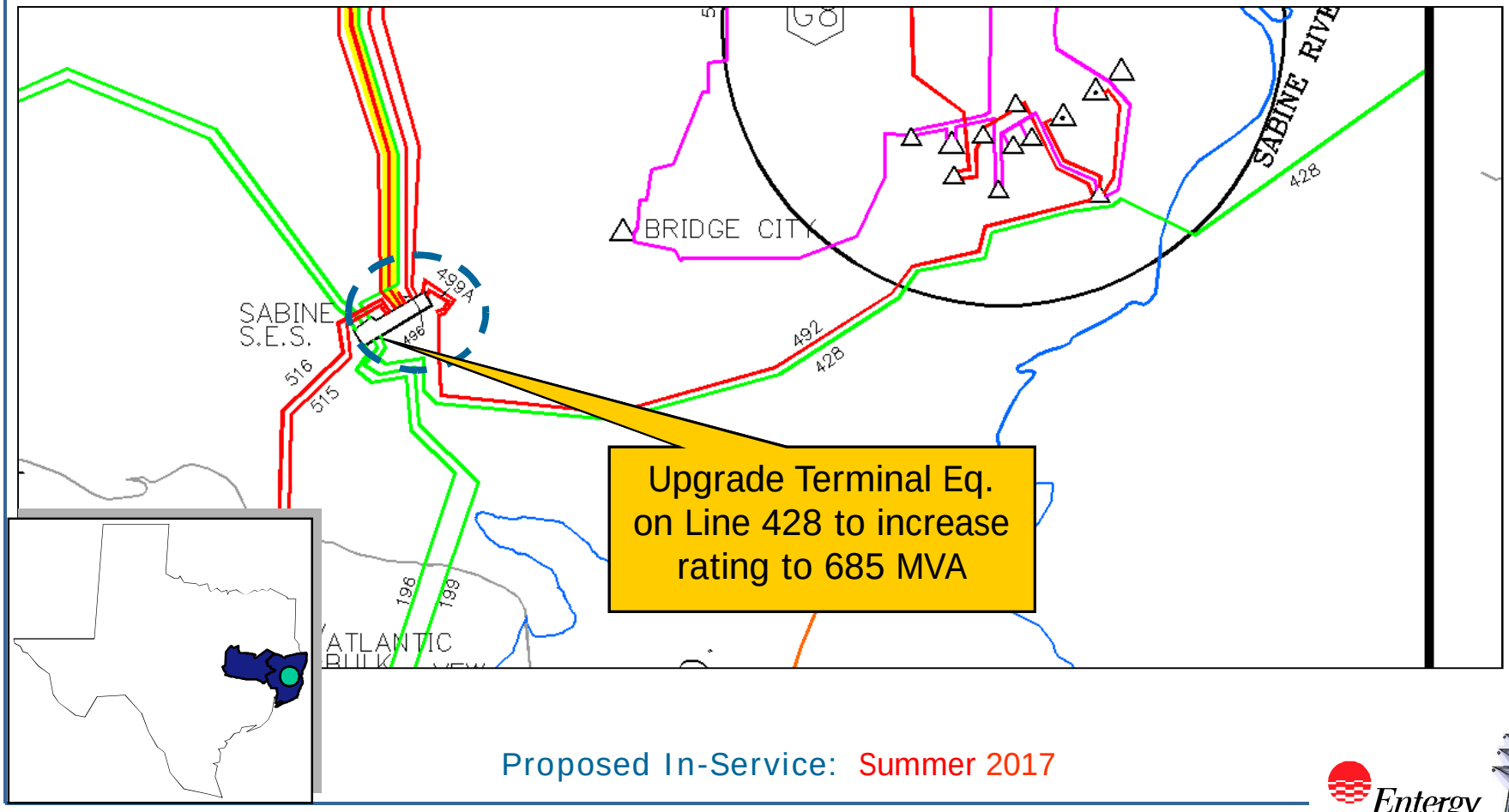
- Loss of the Cypress to Hartburg 500 kV line 547 causes an overload of the Sabine to Big Three 230 kV line 428.

Proposed Solution:

- Upgrade line bay bus and revise relay settings at Sabine to achieve minimum rating of 1710 amps (685 MVA).

Proposed In-Service Date: Summer 2017

Sabine: Upgrade Terminal Equipment on Big 3 230 kV line 12-ETI-009



Proposed In-Service: Summer 2017

Cypress: Add second 500/138 kV autotransformer

11-ETI-016

Scenario:

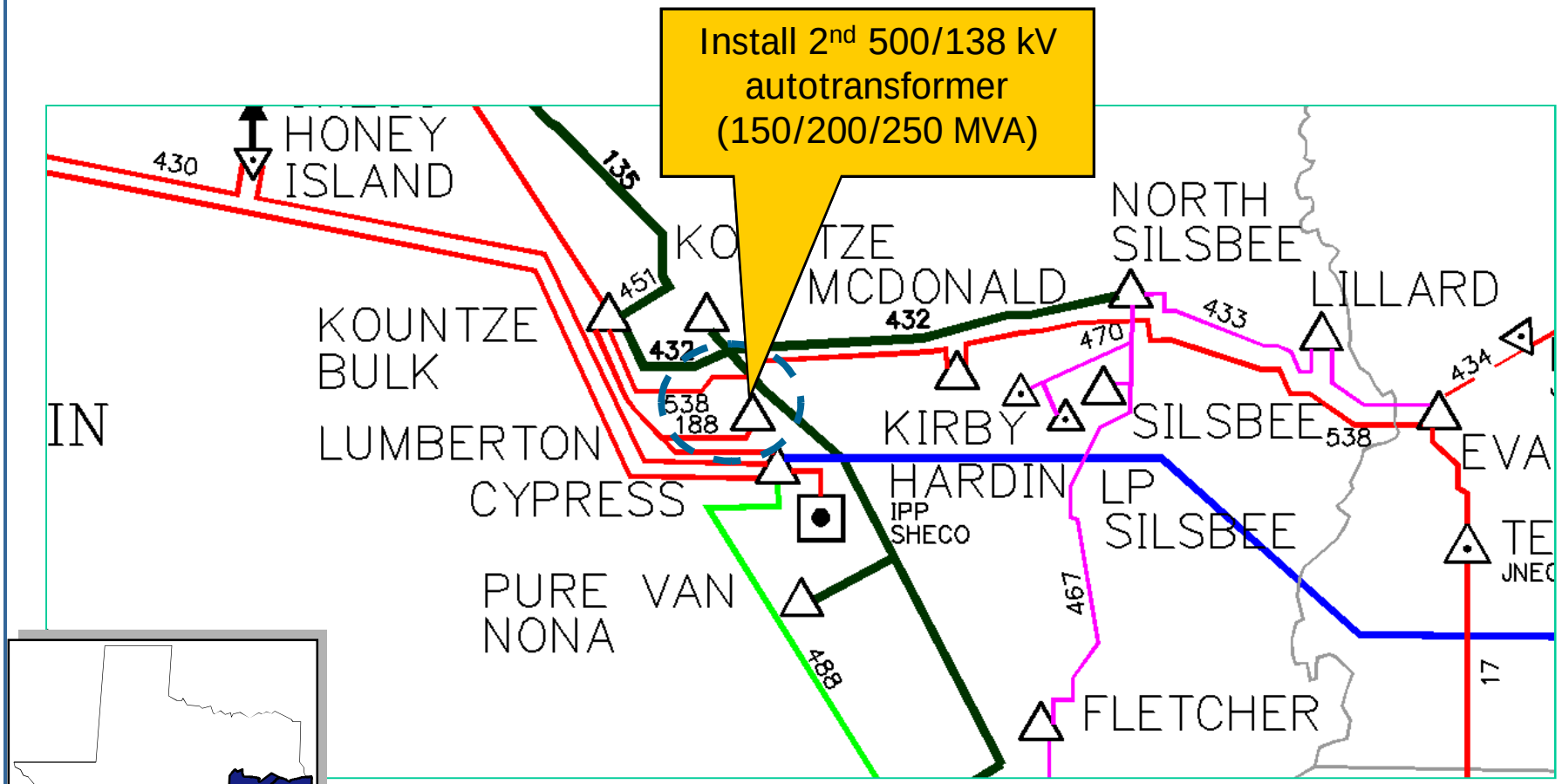
- Loss of the 500/230 kV autotransformer at Cypress causes an overload of the 500/138 kV autotransformer. In addition, loss of the 500/138 kV autotransformer causes an overload of the 500/230 kV autotransformer.

Proposed Solution:

- Install a second 500/138 kV autotransformer (150/200/250 MVA) at Cypress.

Proposed In-Service Date: Summer 2018

Cypress: Add second 500/138 kV autotransformer 11-ETI-016



Proposed In-Service: Summer 2017

Western Region Reliability Improvement Project
Add Alden SVC

11-ETI-022

Scenario:

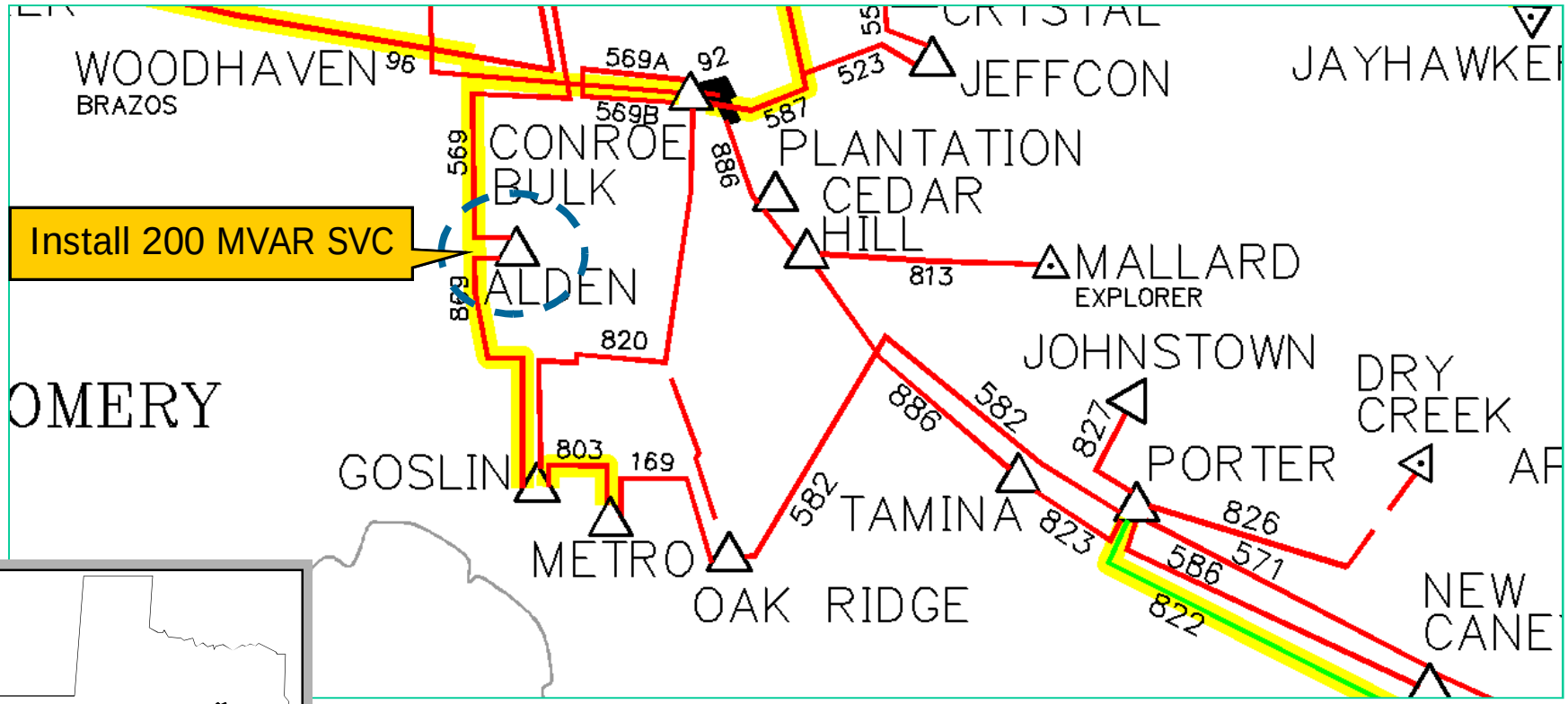
- Loss of the Porter to Oak Ridge 138 kV line 582 or the Porter SVC coupled with the loss of the Lewis Creek U1 results in low voltage in the Woodlands area.

Proposed Solution:

- Install a 200 MVAR SVC at the Alden 138 kV substation for dynamic support.

Proposed In-Service Date: Summer 2018

Western Region Reliability Improvement Project
Add Alden SVC
11-ETI-022



Proposed In-Service: Summer 2018

Leach to Newton Bulk 138 kV– Upgrade Line

11-ETI-034

Scenario:

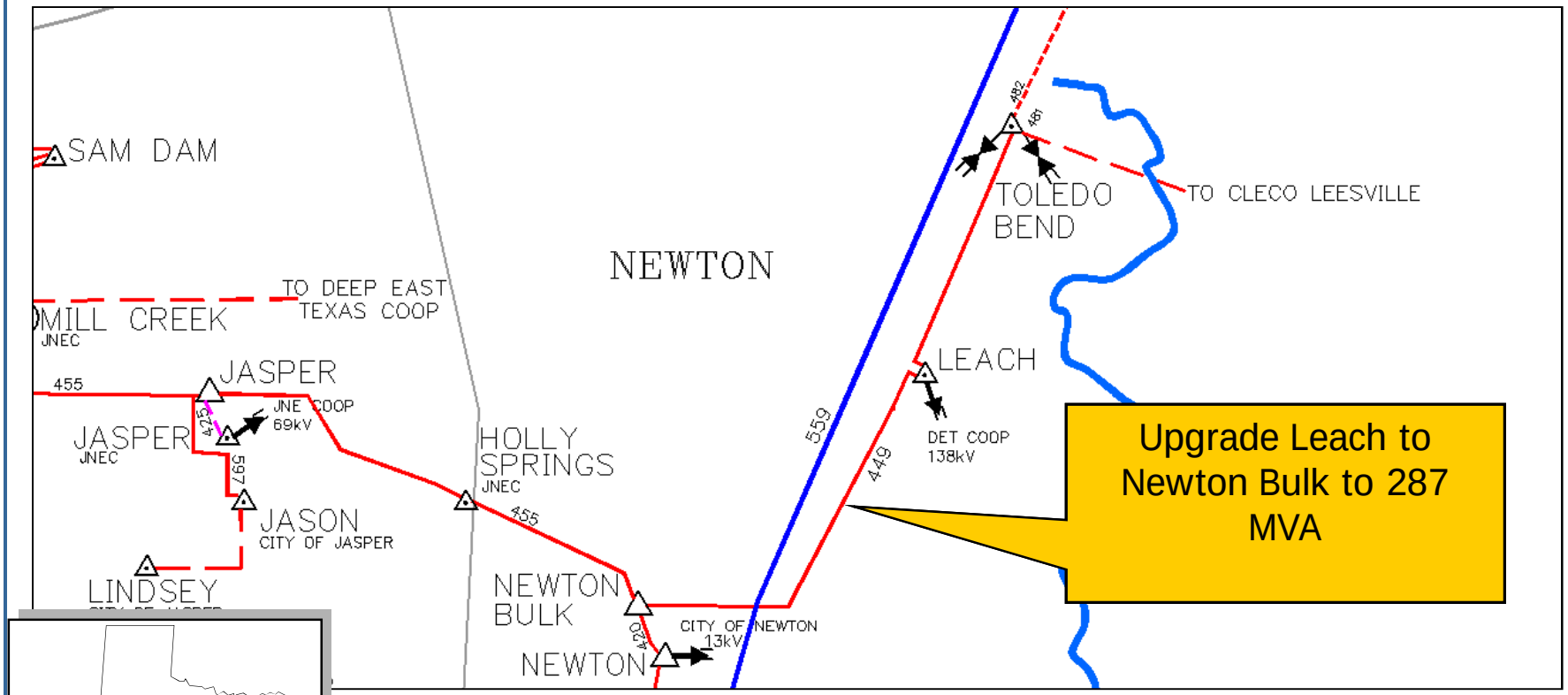
- Loss of the Cypress to Hartburg 500 kV line 547 causes an overload of the Leach to Newton Bulk 138 kV line 449.

Proposed Solution:

- Reconductor approximately 25 miles of conductor and replace equipment at Leach and Newton Bulk to achieve minimum rating of 1200 amps (287 MVA).

Proposed In-Service Date: Summer 2018

Leach to Newton Bulk 138 kV– Upgrade Line 11-ETI-034



Proposed In-Service: Summer 2018

China to Stowell: Construct New 138 kV Line

11-ETI-037

Scenario:

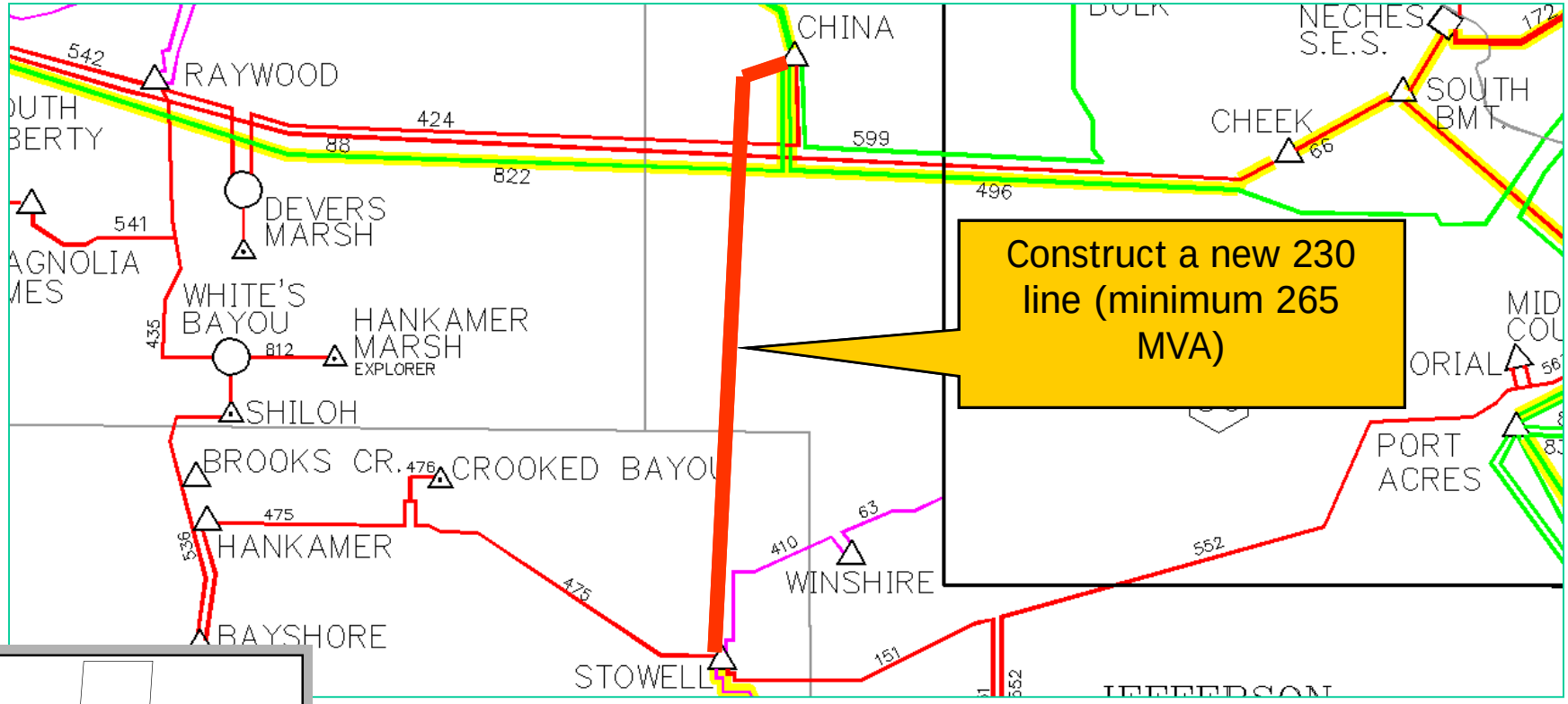
- Loss of the Mid County to Memorial 138 kV line 563 causes an overload of the 69 kV lines 62 and 63 between South Beaumont, Pansy and Winshire.

Proposed Solution:

- Construct a new 138 kV line between China and Stowell with a minimum rating of 1110 amps (265 MVA)

Proposed In-Service Date: Summer 2018

China to Stowell: Construct New 138 kV Line 11-ETI-037



Proposed In-Service: Summer 2018

Sabine to Port Neches 138 kV 516– Upgrade Line

11-ETI-038

Scenario:

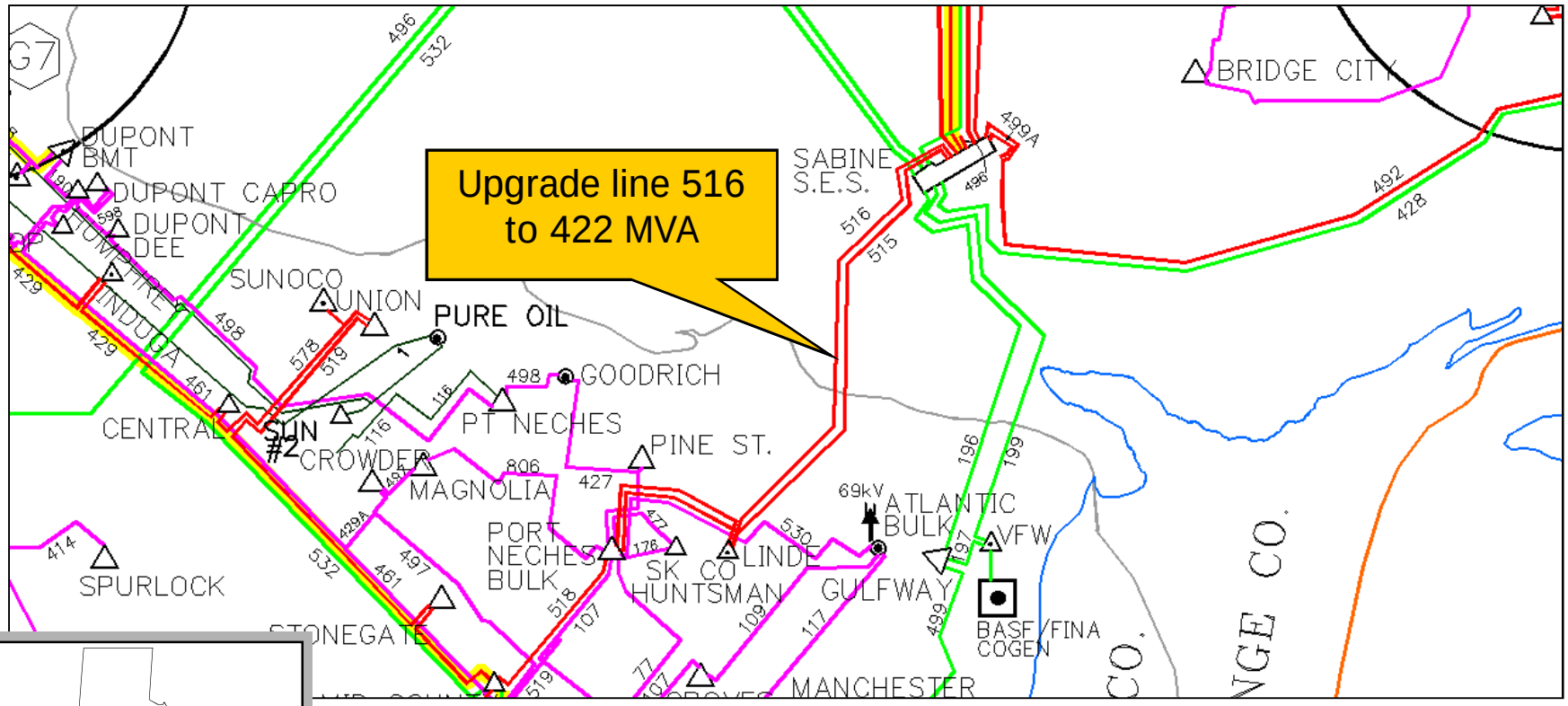
- Loss of the Sabine to Port Neches 138 kV line 515 causes an overload of the Sabine to Port Neches 138 kV line 516.

Proposed Solution:

- Reconductor approximately 7.2 miles of conductor and replace all underrated equipment at Sabine, Linde and Port Neches to achieve minimum rating of 1764 amps (422 MVA).

Proposed In-Service Date: Summer 2018

Sabine to Port Neches 138 kV 516– Upgrade Line 11-ETI-038



Proposed In-Service: Summer 2018

Amelia to Helbig 230 kV 422– Upgrade Line

12-ETI-014

Scenario:

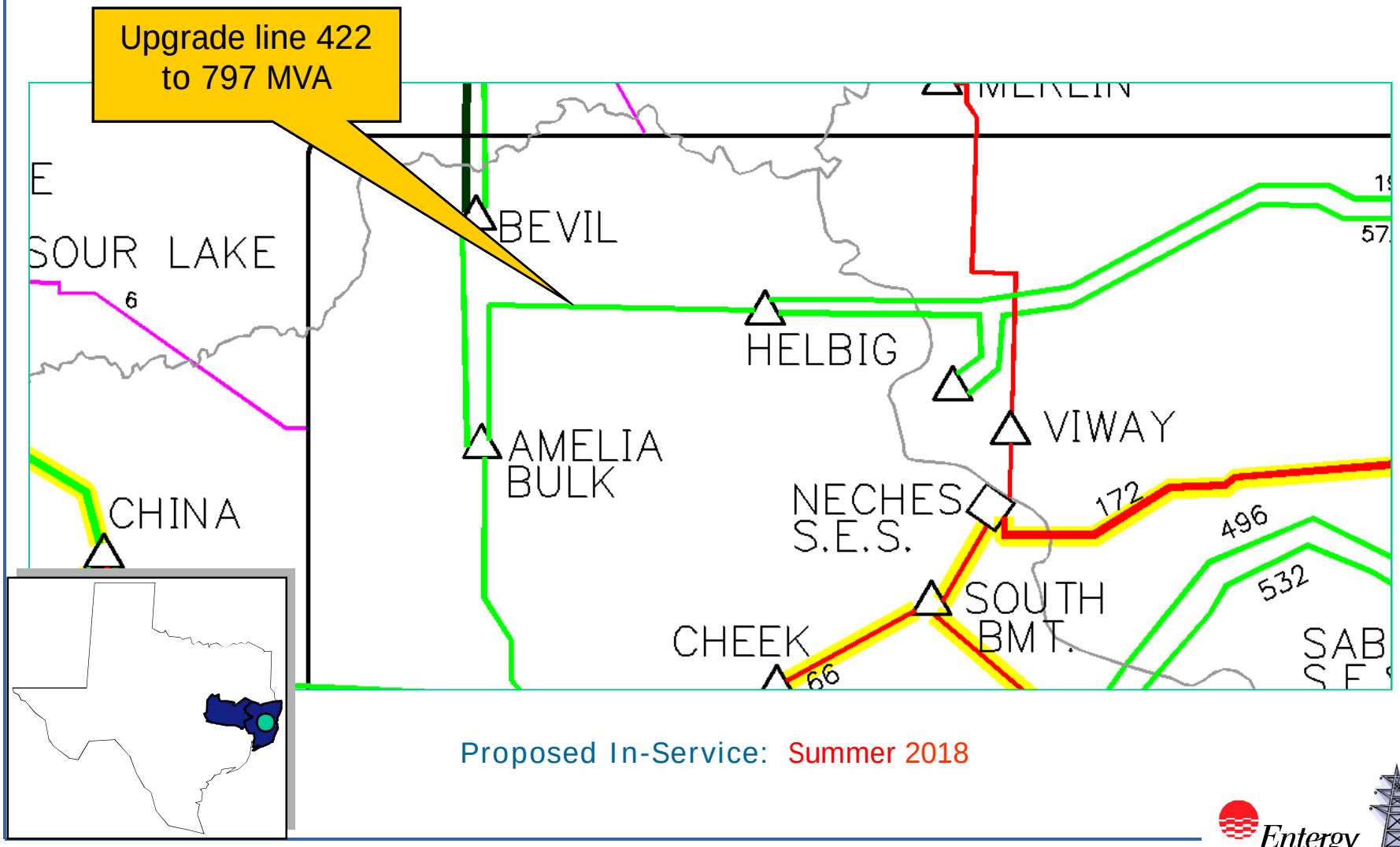
- Loss of the Cypress to Hartburg 500 kV line 547 causes an overload of the Amelia to Helbig 230 kV line 422.

Proposed Solution:

- Reconductor approximately 10.27 miles of 230 kV line and replace all underrated equipment at Amelia and Helbig to achieve minimum rating of 2000 amps (797 MVA).

Proposed In-Service Date: Summer 2018

Amelia to Helbig 230 kV 422– Upgrade Line 12-ETI-014



Proposed In-Service: Summer 2018

Grimes 345 kV – Add 345/138 kV Autotransformer

12-ETI-002

Scenario:

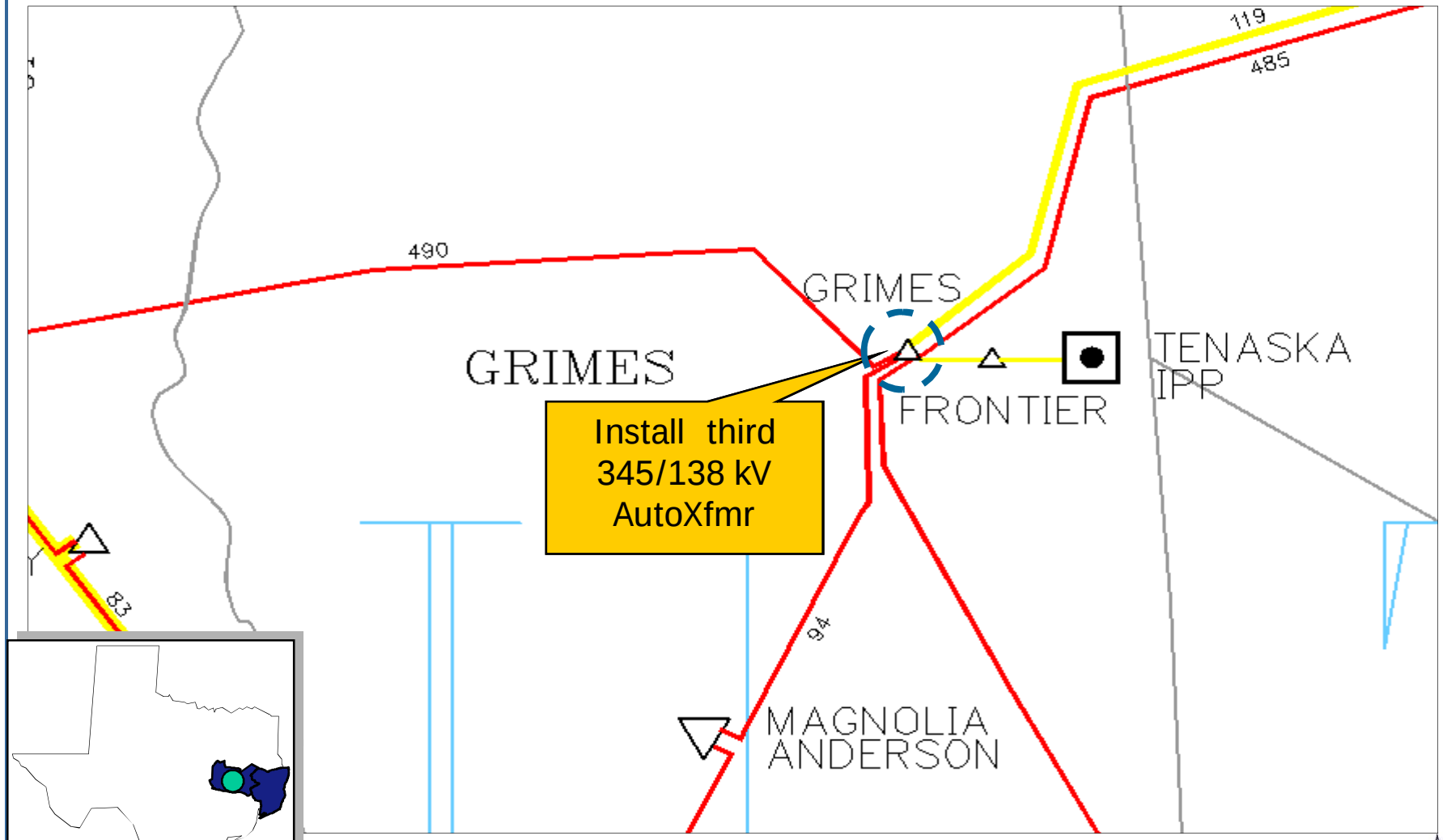
- The single contingency loss of either 345-138 kV Autotransformer at the Grimes 345 kV substation causes the remaining Autotransformer to overload.

Proposed Solution:

- Install a third parallel 345/138 kV autotransformer (525 MVA) at Grimes
- Ensure all secondary (138 kV) equipment has a rating of at least 2200 amps (525 MVA)

Proposed In-Service Date: Summer 2018

Grimes 345 kV – Add 345/138 kV Autotransformer



Proposed In-Service: Summer 2014

ETI Horizon Plan Projects

34) Kolbs Add capacitor bank 2018 Summer

35) Gulfway 230 kV: Upgrade equipment on VFW Park 230 kV line bay 2018 Summer

36) Port Acres Bulk 230: Add Cap Banks 2018 Summer

37) Buna: Add Cap Bank 2018 Winter

38) Grimes to Mt. Zion: Upgrade Line 2019 Summer

39) Buna to Evadale: Upgrade 138 kV Line 2019 Winter

40) Huntsville Add capacitor bank 2020 Summer

41) Porter: Upgrade line bay bus 2020 Summer

42) Grimes to Bentwater: Upgrade line Summer 2021

43) Rayburn to Fork Creek: Upgrade to 100 deg C Summer 2021

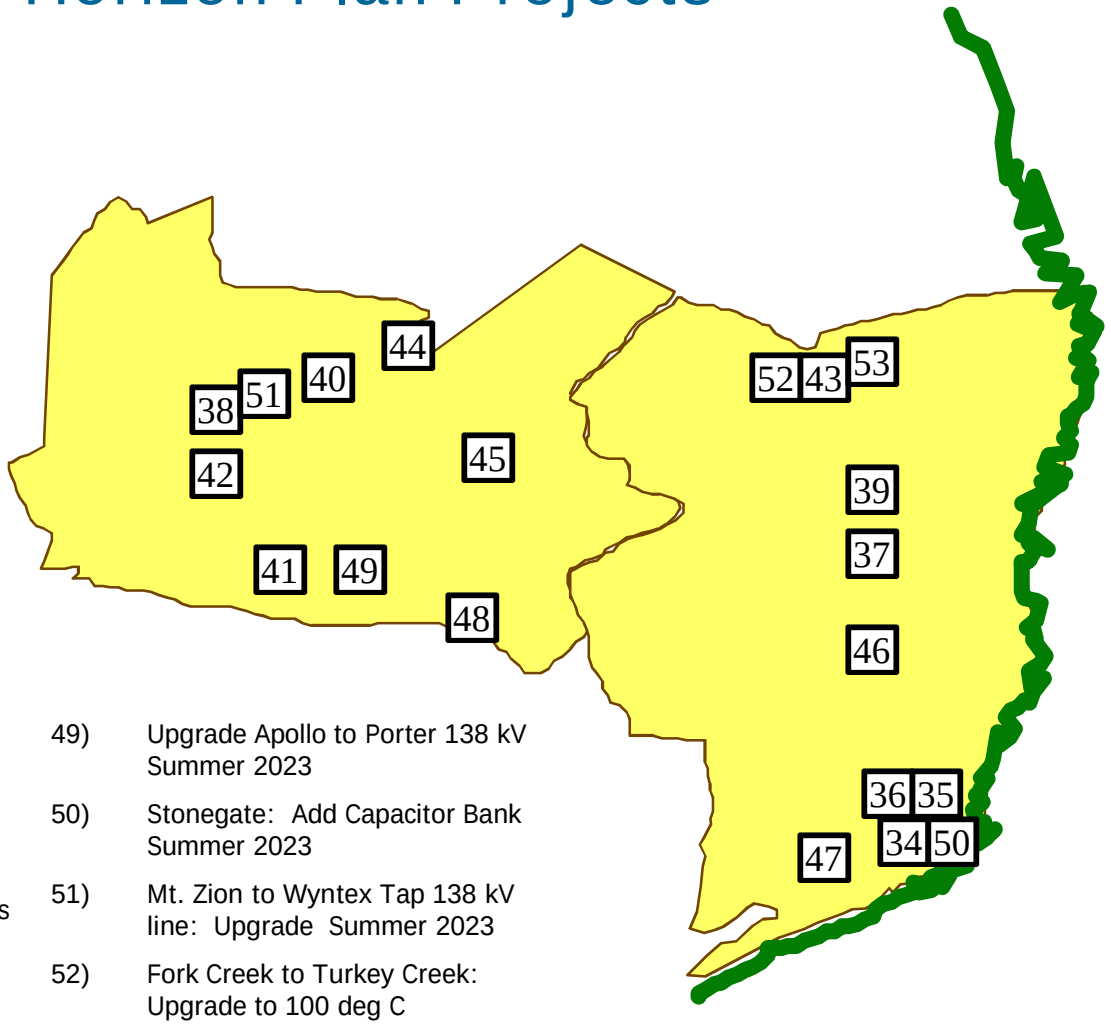
44) Staley: Add 25.1 MVAR Cap Bank 2021 Summer

45) WRRIP PH 3 Final: Construct new Cypress to Jacinto 230 kV line with series compensation Summer 2021

46) Helbig to McLewis 230 kV line: Reconductor Summer 2022

47) Winshire 69 kV: Add capacitor bank Summer 2023

48) Upgrade New Caney to Hickory Ridge 138 kV line Summer 2023



49) Upgrade Apollo to Porter 138 kV Summer 2023

50) Stonegate: Add Capacitor Bank Summer 2023

51) Mt. Zion to Wyntex Tap 138 kV line: Upgrade Summer 2023

52) Fork Creek to Turkey Creek: Upgrade to 100 deg C Summer 2023

53) Rayburn to Mill Creek: Upgrade line Winter 2023

Entergy