



PID 230
Feasibility Study Report
275 MW Plant

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I. Introduction

This Energy Resource Interconnection Service (ERIS) is based on PID 230 275MW request for interconnection on Entergy's transmission system at Pee Dee 138kV substation. The objective of this study is to assess the reliability impact of the new facility on the Entergy transmission system with respect to the steady state and transient stability performance of the system as well as its effects on the system's existing short circuit current capability. It is also intended to determine whether the transmission system meets standards established by NERC Reliability Standards and Entergy's planning guidelines when plant is connected to Entergy's transmission system. If not, transmission improvements will be identified. NRIS analysis will be performed during the system impact study.

The Feasibility Study process required a load flow analysis to determine if the existing transmission lines are adequate to handle the full output from the plant for simulated transfers to adjacent control areas. A short circuit analysis is performed to determine if the generation would cause the available fault current to surpass the fault duty of existing equipment within the Entergy transmission system.

This ERIS System Impact Study was based on information provided by PID 230 customer and assumptions made by Entergy's Transmission Technical System Planning group. All supplied information and assumptions are documented in this report. If the actual equipment installed is different from the supplied information or the assumptions made, the results outlined in this report are subject to change.

The load flow results from the ERIS study are for information only. ERIS does not in and of itself convey any transmission service.

II. Short Circuit Analysis / Breaker Rating Analysis

A. Model Information

The short circuit analysis was performed on the most recent Entergy system short circuit model using ASPEN software. This model includes all generators interconnected to the Entergy system or interconnected to an adjacent system and having an impact on this interconnection request, IPP's with signed IOAs, and approved future transmission projects on the Entergy transmission system.

B. Short Circuit Analysis

The method used to determine if any short circuit problems would be caused by the addition of PID 230 generation is as follows:

Three phase and single phase to ground faults were simulated on the Entergy base case short circuit model and the worst case short circuit level was determined at each station. The PID 230 generation was then modeled in the base case to generate a revised short circuit model. The base case short circuit results were then compared with the results from the revised model to identify any breakers that were under-rated as a result of additional short circuit contribution from PID 230 generation.

C. Analysis Results

The results of the short circuit analysis indicates that the additional generation due to PID 230 generation does **not** cause an increase in short circuit current such that they exceed the fault interrupting capability of the high voltage circuit breakers within the vicinity of the PID 230 plant **without priors**.

The results of the short circuit analysis indicates that the additional generation due to PID 230 generation does **not** cause an increase in short circuit current such that they exceed the fault interrupting capability of the high voltage circuit breakers within the vicinity of the PID 230 plant **with priors**.

Priors included are: 215, 216, 217, 220, 222, 223, 224, & 228.

D. Problem Resolution

There were no costs associated with upgrading the breakers at any station both for mandatory and optional breaker upgrades.

The results of the short circuit analysis based upon the current configuration of the Entergy transmission system and Generation Interconnection Study Queue. Therefore, these results are subject to change.

III. Load Flow Analysis

A. Model Information

The load flow analysis was performed based on the projected 2012 summer peak load flow model. The loads were scaled based on the forecasted loads for the year. All firm power transactions between Entergy and its neighboring control areas were modeled for the year 2012 excluding short-term firm transactions on the same transmission interface. An economic dispatch was carried out on Entergy generating units after the scaling of load and modeling of transactions. The proposed PID 230 275MW generation and the associated facilities were then modeled in the case to build a revised case for the load flow analysis. Transfers were simulated between thirteen (13) control areas and Entergy using requesting generator as the source and adjacent control area as sink.

This study considered the following four scenarios:

| Scenario No. | Approved Future Transmission Projects | Pending Transmission Service & Study Requests |
|---------------------|--|--|
| 1 | Not Included | Not Included |
| 2 | Not Included | Included |
| 3 | Included | Not Included |
| 4 | Included | Included |

B. Load Flow Analyses

i) Load Flow Analysis:

With the above assumptions implemented, the First Contingency Incremental Transfer Capability (FCITC) values are calculated. The FCITC depends on various factors – the system load, generation dispatch, scheduled maintenance of equipment, and the configuration of the interconnected system and the power flows in effect among the interconnected systems. The FCITC is also dependent on previously confirmed firm reservations on the interface.

ii) Performance Criteria

The criteria for overload violations are as follows:

A) With All Lines in Service

- The MVA flow in any branch should not exceed Rate A (normal rating).

B) Under Contingencies

- The MVA flow through any facility should not exceed Rate A.

iii) Power Factor Consideration / Criteria

Entergy, consistent with the FERC Large Generator Interconnection Procedures (LGIP) requires the customer to be capable of supplying at least 0.33 MVAR (*i.e.*, 0.95 lagging power factor) and absorbing at least 0.33 MVAR (*i.e.*, 0.95 leading power factor) for every MW of power injected into the grid. In the event that, under normal operating conditions, the customer facility does not meet the prescribed power factor requirements at the point of interconnection, the customer shall take necessary steps, such as the installation of reactive power compensating devices, to achieve the desired power factor.

C. Analysis Results

Summary of the analysis results are documented in following table for each scenario.

Table II-C Summary of Results for PID 230 – ERIS Load Flow Study

| Interface | | Summer Peak Case Used | FCITC Available for Scenario 1 | FCITC Available for Scenario 2 | FCITC Available for Scenario 3 | FCITC Available for Scenario 4 |
|------------------|---|------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| AECI | Associated Electric Cooperative, Inc. | 2012 | 154 | 0 | 163 | 0 |
| AEPW | American Electric Power - West | 2012 | 0 | 0 | 0 | 0 |
| AMRN | Ameren Transmission | 2012 | 150 | 0 | 160 | 0 |
| CLECO | CLECO | 2012 | 0 | 0 | 0 | 0 |
| EES | Entergy | 2012 | 0 | 0 | 0 | 0 |
| EDE | Empire District Electric Co | 2012 | 0 | 0 | 0 | 0 |
| LAFSA | Lafayette Utilities Systeem | 2012 | 0 | 0 | 0 | 0 |
| LAGN | Louisiana Generating, LLC | 2012 | 0 | 0 | 0 | 0 |
| LEPA | Louisiana Energy & Power Authority | 2012 | 0 | 0 | 0 | 0 |
| OKGE | Oklahoma Gas & Electric Company | 2012 | 0 | 0 | 165 | 0 |
| SMEPA | South Mississippi Electric Power Assoc. | 2012 | 0 | 0 | 0 | 0 |
| SOCO | Southern Company | 2012 | 0 | 0 | 0 | 0 |
| SPA | Southwest Power Administration | 2012 | 0 | 0 | 0 | 0 |
| TVA | Tennessee Valley Authority | 2012 | 0 | 0 | 0 | 0 |

| Scenario No. | Approved Future Transmission Projects | Pending Transmission Service & Study Requests |
|---------------------|--|--|
| 1 | Not Included | Not Included |
| 2 | Not Included | Included |
| 3 | Included | Not Included |
| 4 | Included | Included |

TABLE II-C-1 DETAILS OF SCENARIO 1 RESULTS: (WITHOUT FUTURE PROJECTS AND WITHOUT PENDING TRANSMISSION SERVICE & STUDY REQUEST)

| Limiting Element | Est. Cost (\$) | AECI | AEPW | AMRN | CLECO | EES | EMDE | Lafa | LAGN | LEPA | OKGE | SMEPA | SOCO | SPA | TVA |
|--|----------------|------|------|------|-------|-----|------|------|------|------|------|-------|------|-----|-----|
| Acadia - Colonial Academy 138kV | 6,277,500 | | | | | | | X | | X | | | | | |
| Acadia GSU - Scanlan 138kV | 1,455,000 | | | | | | | X | | | | | | | |
| Baxter Wilson - Ray Braswell 500kV | 4,100,000 | | | | | X | | X | X | X | | X | X | | X |
| Bishop - Cedar 138kV | 11,000,000 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Bonin - Cecelia 138kV | 4,792,500 | | | | | | | | | X | | | | | |
| Bryan - Pee Dee 138kV | 57,400,000 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Bull Shoals - Bull Shoals Dam SPA 161kV | 427,500 | | | | | | X | | | | | | | | |
| Calico Rock - Melborne 161kV | 24,945,000 | | | | | | X | | | | | | | X | |
| Calico Rock - Norfolk 161kV | 12,180,000 | | | | | | X | | | | | | | X | |
| Cedar - Cincinnati 138kV | 10,737,500 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Champagne - East Opelousas 138kV | 1,397,500 | | | | | | | X | | | | | | | |
| Chauvin - Ashland 115kV | 4,606,875 | | | | | | | | | X | | | | | |
| Chauvin - Valentine 115kV | 6,571,125 | | | | | | | | | X | | | | | |
| Cincinnati - Walker 138kV | 1,837,500 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Colonial Academy - Richard 138kV | 7,957,500 | | | | | | | X | | X | | | | | |
| Danville - North Magazine REA 161kV | 10,530,000 | | X | | | | X | | | | X | | | | |
| Greenwood - Humphrey 115kV | 3,838,000 | | | | | | | X | | | | | | | |
| Greenwood - Terrebone 115kV | 22,094,000 | | | | X | | | X | | X | | | | | |
| Habetz - Richard 138kV | 3,272,000 | | | | | | | X | | X | | | | | |
| Harrison East - Everton 161kV | 345,000 | | | | | | X | | | | | | | | |
| Harrison East - Summit 161kV | 17,650,000 | | | | | | X | | | | | | | | |
| Judice - Meaux 138kV | 12,600,000 | | | | | | | | | X | | | | | |
| Judice - Scott1 138kV | 9,700,000 | | | | X | | | | | X | | | | | |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | 17,265,000 | X | | X | X | X | X | X | X | X | X | X | X | X | X |
| Lake Conway - Mayflower 115kV | 4,937,500 | | | | | | | | | | | | | X | |
| 'MANSFLD4 138' TO BUS 'IPAPER 4 138' | TBD | | X | | | | | | | | | | | | |

| Limiting Element | Est. Cost (\$) | AECI | AEPW | AMRN | CLECO | EES | EMDE | LAFA | LAGN | LEPA | OKGE | SMEPA | SOCO | SPA | TVA |
|--|----------------|------|------|------|-------|-----|------|------|------|------|------|-------|------|-----|-----|
| Melborne - Sage 161kV | 8,573,000 | | | | | | X | | | | | | | X | |
| Moril - Cecelia 138kV | 6,182,500 | | | | | | | | | X | | | | | |
| North Crowley - Richard 138kV | 3,776,625 | | | | | | | X | | | | | | | |
| North Crowley - Scott1 138kV | 39,707,607 | | | | | | | X | | X | | | | | |
| Pee Dee - Bishop 138kV | 6,500,000 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Pleasant Hill 500/161kV transformer | TBD | | | | | | X | | | | | | | X | |
| Raceland - Coteau 115kV | 3,065,000 | | | | | | | | | X | | | | | |
| Richard - Scott1 138kV | 68,006,984 | | | | | | | X | | | | | | | |
| Richard 500/138kV transformer 1 | 7,560,000 | | | | X | | | X | | | | | | | |
| Rivtrin - Walker 138kV | 6,662,500 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Russellville East - Russellville North 161kV | 5,954,000 | | | | | | | | | | | | | X | |
| Scott1 - Bonin 138kV | 7,410,000 | | | | | | | X | | X | | | | | |
| Semere - Scott2 138kV | 11,361,000 | | | | X | | | X | | X | | | | | |
| St. Joe - Hilltop 161kV | BP | | | | | | X | | | | | | | | |
| Terrebone 230/115kV transformer | 5,250,000 | | | | | | | | | X | | | | | |
| Vacherie - Waterford 230kV | 7,480,350 | | | | | | | | | X | | | | | |

TABLE II-C-2 DETAILS OF SCENARIO 2 RESULTS: (WITHOUT FUTURE PROJECTS AND WITH PENDING TRANSMISSION SERVICE & STUDY REQUEST)

| Limiting Elements | Est Cost (\$) | AECI | AEPW | AMRN | CLECO | EES | EMDE | LAFA | LAGN | LEPA | OKGE | SMEPA | SOCO | SPA | TVA |
|--|---------------|------|------|------|-------|-----|------|------|------|------|------|-------|------|-----|-----|
| Addis - Big Cajun 1 230kV | BP | | | | | X | | | | X | | | | | |
| Ashland - Houma 115kV | 1,809,000 | | | | | | | | | X | | | | | |
| Baxter Wilson - Ray Braswell 500kV | 4,100,000 | | | | | X | | X | X | X | | X | X | | X |
| Bishop - Cedar 138kV | 11,000,000 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Bryan - Pee Dee 138kV | 57,400,000 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Caney Creek - Lewis Creek SES 138kV | 7,012,500 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Cedar - Cincinnati 138kV | 10,737,500 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Chauvin - Ashland 115kV | 4,606,875 | | | | | | | | | X | | | | | |
| Chauvin - Valentine 115kV | 6,571,125 | | | | | | | | | X | | | | | |
| Cincinnati - Walker 138kV | 1,837,500 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Conair - Caney Creek 138kV | 7,725,000 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Conway - Wyandotte 138kV | 5,987,500 | | | | | | | | | X | | | | | |
| Coteau - Houma 115kV | 4,975,000 | | | | | | | | | X | | | | | |
| Geismar - Wyandotte 138kV | 4,487,500 | | | | | | | | | X | | | | | |
| Gibson - Humphrey 115kV | 24,009,000 | | | | | | | | | X | | | | | |
| Greenwood - Humphrey 115kV | 3,838,000 | | | | | | | | | X | | | | | |
| Greenwood - Terrebone 115kV Supplemental Upgrade 228 | TBD | | | | | | | | | X | | | | | |
| Houma - City of Houma 115kV | 1,125,000 | | | | | | | | | X | | | | | |
| Lewis Creek SES - Sheawill 138kV | 6,312,500 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| North Crowley - Scott1 138kV | 39,707,607 | | | | | | | X | | | | | | | |
| Pee Dee - Bishop 138kV | 6,500,000 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Raceland - Coteau 115kV | 3,065,000 | | | | | | | | | X | | | | | |
| Rivtrin - Walker 138kV | 6,662,500 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Scott1 - Bonin 138kV | 7,410,000 | | | | | | | X | | | | | | | |

| Limiting Elements | Est Cost (\$) | AECI | AEPW | AMRN | CLECO | EES | EMDE | Lafa | LAGN | LEPA | OKGE | SMEPA | SOCO | SPA | TVA |
|--|---------------|------|------|------|-------|-----|------|------|------|------|------|-------|------|-----|-----|
| Semere - Scott2 138kV | 11,361,000 | | | | | | | X | | | | | | | |
| Terrebone - Coteau 115kV | 6,275,000 | | | | | | | | | X | | | | | |
| Terrebone 230/115kV transformer | 5,250,000 | | | | | | | | | X | | | | | |
| Vacherie - Waterford 230kV Supplemental Upgrade 228 | TBD | | | | | | | | | X | | | | | |
| Webre 500/230kV transformer Supplemental Upgrade 9Mile | TBD | | | | | | | X | | | | | | | |
| Willow Glen - Willow Glen 2 500/138kV transformer 1 | TBD | | | | | X | | | | X | | | | | |
| Willow Glen 500/230kV Transformer | TBD | | | | | X | | | X | X | | | | | |

TABLE II-C-3 DETAILS OF SCENARIO 3 RESULTS: (WITH FUTURE PROJECTS AND WITHOUT PENDING TRANSMISSION SERVICE & STUDY REQUEST)

| Limiting Element | Est Cost (\$) | AECI | AEPW | AMRN | CLECO | EES | EMDE | LAFA | LAGN | LEPA | OKGE | SMEPA | SOCO | SPA | TVA |
|--|---------------|------|------|------|-------|-----|------|------|------|------|------|-------|------|-----|-----|
| Acadia - Colonial Academy 138kV | 6,277,500 | | | | | | | X | | X | | | | | |
| Acadia GSU - Scanlan 138kV | 1,455,000 | | | | | | | X | | | | | | | |
| Baxter Wilson - Ray Braswell 500kV | 4,100,000 | | | | | X | | X | X | X | | X | X | | X |
| Bishop - Cedar 138kV | 11,000,000 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Bonin - Cecelia 138kV | 4,792,500 | | | | | | | | | X | | | | | |
| Bryan - Pee Dee 138kV | 57,400,000 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Bull Shoals - Bull Shoals Dam SPA 161kV | 427,500 | | | | | | X | | | | | | | | |
| Calico Rock - Melborne 161kV | 24,945,000 | | | | | | X | | | | | | | X | |
| Calico Rock - Norfolk 161kV | 12,180,000 | | | | | | X | | | | | | | X | |
| Cedar - Cincinnati 138kV | 10,737,500 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Champagne - East Opelousas 138kV | 1,397,500 | | | | | | | X | | | | | | | |
| Chauvin - Ashland 115kV | 4,606,875 | | | | | | | | | X | | | | | |
| Chauvin - Valentine 115kV | 6,571,125 | | | | | | | | | X | | | | | |
| Cincinnati - Walker 138kV | 1,837,500 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Colonial Academy - Richard 138kV | 7,957,500 | | | | | | | X | | X | | | | | |
| Greenwood - Terrebone 115kV | 22,094,000 | | | | X | | | X | | X | | | | | |
| Habetz - Richard 138kV | 3,272,000 | | | | | | | X | | X | | | | | |
| Harrison East - Everton 161kV | 345,000 | | | | | | X | | | | | | | | |
| Harrison East - Summit 161kV | 17,650,000 | | | | | | X | | | | | | | | |
| Judice - Meaux 138kV | 12,600,000 | | | | | | | | | X | | | | | |
| Judice - Scott1 138kV | 9,700,000 | | | | X | | | | | X | | | | | |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | 17,650,000 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Lake Conway - Mayflower 115kV | 4,937,500 | | | | | | | | | | | | | X | |
| 'MANSFLD4 138' TO BUS 'IPAPER 4 138' | TBD | | X | | | | | | | | | | | | |
| Melborne - Sage 161kV | 8,573,000 | | | | | | X | | | | | | | X | |
| Moril - Cecelia 138kV | 6,182,500 | | | | | | | | | X | | | | | |

| Limiting Element | Est Cost (\$) | AECI | AEPW | AMRN | CLECO | EES | EMDE | LAFA | LAGN | LEPA | OKGE | SMEPA | SOCO | SPA | TVA |
|--|---------------|------|------|------|-------|-----|------|------|------|------|------|-------|------|-----|-----|
| North Crowley - Richard 138kV | 3,776,625 | | | | | | | X | | | | | | | |
| North Crowley - Scott1 138kV | 39,707,607 | | | | X | | | X | | X | | | | | |
| Pee Dee - Bishop 138kV | 6,500,000 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Pleasant Hill 500/161kV transformer | TBD | | | | | | X | | | | | | | X | |
| Raceland - Coteau 115kV | 3,065,000 | | | | | | | | | X | | | | | |
| Richard - Scott1 138kV | 68,006,984 | | | | | | | X | | | | | | | |
| Richard 500/138kV transformer 1 | 7,560,000 | | | | | | | X | | | | | | | |
| Rivtrin - Walker 138kV | 6,662,500 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Russellville East - Russellville North 161kV | 5,954,000 | | | | | | | | | | X | | | X | |
| Scott1 - Bonin 138kV | 7,410,000 | | | | | | | X | | X | | | | | |
| Semere - Scott2 138kV | 11,361,000 | | | | | | | X | | X | | | | | |
| St. Joe - Hilltop 161kV | BP | | | | | | X | | | | | | | | |
| Terrebone 230/115kV transformer | 5,250,000 | | | | | | | | | X | | | | | |
| Vacherie - Waterford 230kV | 7,480,350 | | | | | | | | | X | | | | | |

TABLE II-C-4 DETAILS OF SCENARIO 4 RESULTS: (WITH FUTURE PROJECTS AND WITH PENDING TRANSMISSION SERVICE & STUDY REQUEST)

| Limiting Element | Est. Cost (\$) | AECI | AEPW | AMRN | CLECO | EES | EMDE | Lafa | LAGN | LEPA | OKGE | SMEPA | SOCO | SPA | TVA |
|--|----------------|------|------|------|-------|-----|------|------|------|------|------|-------|------|-----|-----|
| Addis - Big Cajun 1 230kV | BP | | | | | X | | | | X | | | | | |
| Ashland - Houma 115kV | 1,809,000 | | | | | | | | | X | | | | | |
| Baxter Wilson - Ray Braswell 500kV | 4,100,000 | | | | | X | | X | X | X | | X | X | | X |
| Bishop - Cedar 138kV | 11,000,000 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Bryan - Pee Dee 138kV | 57,400,000 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Caney Creek - Lewis Creek SES 138kV | 7,012,500 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Cedar - Cincinnati 138kV | 10,737,500 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Chauvin - Ashland 115kV | 4,606,875 | | | | | | | | | X | | | | | |
| Chauvin - Valentine 115kV | 6,571,125 | | | | | | | | | X | | | | | |
| Cincinnati - Walker 138kV | 1,837,500 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Conair - Caney Creek 138kV | 7,725,000 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Conway - Wyandotte 138kV | 5,987,500 | | | | | | | | | X | | | | | |
| Coteau - Houma 115kV | 4,975,000 | | | | | | | | | X | | | | | |
| Geismar - Wyandotte 138kV | 4,487,500 | | | | | | | | | X | | | | | |
| Gibson - Humphrey 115kV | 24,009,000 | | | | | | | | | X | | | | | |
| Greenwood - Humphrey 115kV | 3,838,000 | | | | | | | | | X | | | | | |
| Greenwood - Terrebone 115kV Supplemental Upgrade 228 | TBD | | | | | | | | | X | | | | | |
| Houma - City of Houma 115kV | 1,125,000 | | | | | | | | | X | | | | | |
| Lewis Creek SES - Sheawill 138kV | 6,312,500 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| North Crowley - Scott1 138kV | 39,707,607 | | | | | | | X | | | | | | | |
| Pee Dee - Bishop 138kV | 6,500,000 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Raceland - Coteau 115kV | 3,065,000 | | | | | | | | | X | | | | | |

| Limiting Element | Est. Cost (\$) | AECI | AEPW | AMRN | CLECO | EES | EMDE | LAFA | LAGN | LEPA | OKGE | SMEPA | SOCO | SPA | TVA |
|--|----------------|------|------|------|-------|-----|------|------|------|------|------|-------|------|-----|-----|
| Rivtrin - Walker 138kV | 6,662,500 | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Scott1 - Bonin 138kV | 7,410,000 | | | | | | | X | | | | | | | |
| Semere - Scott2 138kV | 11,361,000 | | | | | | | X | | | | | | | |
| Terrebone - Coteau 115kV | 6,275,000 | | | | | | | | | X | | | | | |
| Terrebone 230/115kV transformer | 5,250,000 | | | | | | | | | X | | | | | |
| Vacherie - Waterford 230kV Supplemental Upgrade 228 | TBD | | | | | | | | | X | | | | | |
| Webre 500/230kV transformer Supplemental Upgrade 9Mile | TBD | | | | | | | X | | | | | | | |
| Willow Glen - Willow Glen 2 500/138kV transformer 1 | TBD | | | | | X | | | | X | | | | | |
| Willow Glen 500/230kV Transformer | TBD | | | | | X | | | X | X | | | | | |

APPENDIX A-B: Approved Projects and Transactions in Study Mode

| Year | Approved Future Projects |
|-------------|---|
| 2009 – 2013 | EAI 2009S Conway West – Donaghey |
| | EAI 2009S Danville – Magazine |
| | EAI 2009S Gillett Capacitor Bank Approved |
| | EAI 2009W Donaghey - Conway South |
| | EAI 2010S SMEPA Approved |
| | EAI 2011W Aquilla Facility Study |
| | EAI 2012S Warren East Cap |
| | EGSL 2009S Install 37.7MVAR Cap Bank at Acadia 138kV Sub |
| | ELL 2009S Amite_South_Area_Improvements_Phase_III |
| | ELL 2011S Sarepta+Additions |
| | ELL 2012S Ouichita-To Run First-upg-1478781-3SterlAutos+2BWAutos+splitbus |
| | ELL 2012S Ouichita-To Run Second Sterlington to NorthBastropVERSION1-Updated |
| | ELL 2013S Coly-Hammond_230kV |
| | ELL 2013S Loblolly-Hammond_230kV |
| | EMI 2008S Liberty-Gloster_Uprate_Line_To_190MVA_newnum |
| | EMI 2009S Indianola-Greenwood Upggrade Jumpers-Bus |
| | EMI 2010S Magee_XFMRs_2000A_switches |
| | ENOI 2009S Paterson Restore Breakers |
| | ETI 2009F Porter_Tamina_138kV_Replace_Breaker |
| | ETI 2009S Beaumont_69kV_Improvement_Plan |
| | ETI 2009S Close_College_Station_138kV_NO_Switch |
| | ETI 2009S Retap_Newton_Bulk_CT |
| | ETI 2009W Upgrade_Fawil_Auto |
| | ETI 2010S WRRIP_Ph_3_Interim_Lewis_Creek_Jacinto_Conversion |
| | ETI 2011S WRRIP_Ph_3_Interim_Add_Alden_SVC |
| | ETI 2011S WRRIP_Ph_3_Interim_Upgrade_South_Beaumont_Fontenots_Corner_138kV Solution Set-TVA Affected System |

| Year | Proposed Projects for prior generator interconnection requests |
|------|--|
| 2012 | Build Acadiana Load Pocket upgrades |
| | New Bayou Steel – Tezcuco 230kV line |
| | New Webre – Wells 230kV line |
| | New Lewis Creek – Conroe 230kV transmission line |
| | Upgrade Frisco – Tezcuco 230kV line |
| | Upgrade LaBarre – South Port 230kV line |
| | Upgrade Vacherie – Waterford 230kV line |
| | Upgrade Terrebone – Greenwood 230kV line |
| | Upgrade Belle Point – Gypsy 230kV line |

Prior Generation Interconnection NRIS requests that were included in this study:

| PID | Substation | MW | In Service Date |
|---------|-------------|-----|-----------------|
| PID 211 | Lewis Creek | 570 | 6/1/2011 |
| PID 221 | Wolfcreek | 875 | In Service |
| PID 222 | Nine Mile | 570 | 10/1/2012 |
| PID 223 | PID-223 Tap | 125 | 10/1/2010 |
| PID 224 | PID-224 Tap | 100 | 12/1/2009 |
| PID 228 | PID-228 Tap | 104 | 4/30/2011 |

Prior transmission service requests that were included in this study:

| OASIS # | PSE | MW | Begin | End |
|---------|------------------------------------|-----|----------|----------|
| 1460900 | Louisiana Energy & Power Authority | 116 | 1/1/2009 | 1/1/2030 |
| 1481235 | Louisiana Energy & Power Authority | 50 | 2/1/2011 | 2/1/2016 |
| 1520043 | Municipal Energy Agency of Miss | 20 | 1/1/2011 | 1/1/2026 |
| 1617595 | Aquila | 75 | 1/1/2009 | 1/1/2010 |
| 1617596 | Aquila | 75 | 1/1/2009 | 1/1/2010 |
| 1617597 | Aquila | 75 | 1/1/2009 | 1/1/2010 |
| 1617598 | Aquila | 75 | 1/1/2009 | 1/1/2010 |
| 1642338 | CLECO Power LLC | 41 | 5/1/2016 | 5/1/2018 |
| 1620327 | NRG Power Marketing | 15 | 1/1/2011 | 1/1/2021 |
| 1628473 | NRG Power Marketing | 100 | 1/1/2011 | 1/1/2020 |
| 1628474 | NRG Power Marketing | 100 | 1/1/2011 | 1/1/2020 |
| 1631134 | NRG Power Marketing | 103 | 1/1/2011 | 1/1/2016 |
| 1631135 | NRG Power Marketing | 206 | 1/1/2011 | 1/1/2016 |
| 1632265 | Merrill Lynch | 1 | 4/1/2009 | 4/1/2014 |
| 1632268 | Merrill Lynch | 25 | 4/1/2009 | 4/1/2014 |
| 1632269 | Merrill Lynch | 15 | 4/1/2009 | 4/1/2014 |
| 1633695 | NRG Power Marketing | 100 | 1/1/2011 | 1/1/2020 |
| 1633701 | NRG Power Marketing | 20 | 1/1/2010 | 1/1/2019 |
| 1633702 | NRG Power Marketing | 20 | 1/1/2010 | 1/1/2019 |
| 1633703 | NRG Power Marketing | 20 | 1/1/2010 | 1/1/2019 |
| 1635561 | NRG Power Marketing | 300 | 1/1/2011 | 1/1/2021 |
| 1635749 | NRG Power Marketing | 155 | 1/1/2010 | 1/1/2020 |
| 1636313 | NRG Power Marketing | 75 | 1/1/2010 | 1/1/2020 |
| 1641343 | NRG Power Marketing | 52 | 1/1/2011 | 1/1/2012 |
| 1641979 | NRG Power Marketing | 30 | 1/1/2011 | 1/1/2021 |
| 1643301 | Cargill | 103 | 1/1/2010 | 1/1/2011 |
| 1643302 | Cargill | 103 | 1/1/2011 | 1/1/2012 |
| 1643833 | NRG Power Marketing | 85 | 1/1/2010 | 1/1/2030 |

APPENDIX A-C: DETAILS OF SCENARIO 1

AECI

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 154 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 177 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 178 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 182 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 185 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 187 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 189 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 190 |
| Pee Dee - Bishop 138kV | Cypress - Hartburg 500kV | 190 |
| Pee Dee - Bishop 138kV | Walden - April 138kV | 191 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 191 |
| Pee Dee - Bishop 138kV | Webre - Wells 500kV | 193 |
| Pee Dee - Bishop 138kV | April - Lake Forest 138kV | 193 |
| Bishop - Cedar 138kV | Cypress - Hartburg 500kV | 194 |
| Bishop - Cedar 138kV | Walden - April 138kV | 195 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 195 |
| Bishop - Cedar 138kV | Webre - Wells 500kV | 197 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Bishop - Cedar 138kV | April - Lake Forest 138kV | 197 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 202 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 203 |
| Cedar - Cincinnati 138kV | Cypress - Hartburg 500kV | 206 |
| Cedar - Cincinnati 138kV | Walden - April 138kV | 207 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Cedar - Cincinnati 138kV | Webre - Wells 500kV | 209 |
| Cedar - Cincinnati 138kV | April - Lake Forest 138kV | 209 |
| Pee Dee - Bishop 138kV | Base Case | 213 |
| Bishop - Cedar 138kV | Base Case | 217 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 222 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 228 |
| Cedar - Cincinnati 138kV | Base Case | 229 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 230 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 235 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 235 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 235 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 239 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 239 |
| Cincinnati - Walker 138kV | Cypress - Hartburg 500kV | 239 |
| Cincinnati - Walker 138kV | College Station - Grimes 138kV | 240 |
| Cincinnati - Walker 138kV | April - Lake Forest 138kV | 241 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 242 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 243 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 244 |
| Rivtrin - Walker 138kV | College Station - Grimes 138kV | 245 |
| Rivtrin - Walker 138kV | Walden - April 138kV | 246 |
| Rivtrin - Walker 138kV | Cypress - Hartburg 500kV | 246 |
| Rivtrin - Walker 138kV | April - Lake Forest 138kV | 249 |
| Cincinnati - Walker 138kV | Base Case | 262 |
| Rivtrin - Walker 138kV | Base Case | 269 |

AEPW

| Limiting Element | Contingency Element | ATC |
|--------------------------------------|---|-----|
| Danville - North Magazine REA 161kV | ANO - Fort Smith 500kV | 0 |
| 'MANSFLD4 138' TO BUS 'IPAPER 4 138' | Contingency of FlowGate 5029 DOLHILL7 345 TO SW SHV 7 345 | 0 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 175 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 180 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 181 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 185 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 188 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 189 |
| Pee Dee - Bishop 138kV | Cypress - Hartburg 500kV | 191 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 192 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 192 |
| Pee Dee - Bishop 138kV | Walden - April 138kV | 193 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 193 |
| Pee Dee - Bishop 138kV | Webre - Wells 500kV | 194 |
| Pee Dee - Bishop 138kV | Cypress - Honey 138kV | 195 |
| Bishop - Cedar 138kV | Cypress - Hartburg 500kV | 196 |
| Bishop - Cedar 138kV | Walden - April 138kV | 197 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 198 |
| Bishop - Cedar 138kV | Webre - Wells 500kV | 198 |
| Bishop - Cedar 138kV | Cypress - Honey 138kV | 199 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 205 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 205 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Cedar - Cincinnati 138kV | Cypress - Hartburg 500kV | 208 |
| Cedar - Cincinnati 138kV | Walden - April 138kV | 209 |
| Cedar - Cincinnati 138kV | Webre - Wells 500kV | 210 |
| Cedar - Cincinnati 138kV | Cypress - Honey 138kV | 211 |
| Pee Dee - Bishop 138kV | Base Case | 215 |
| Bishop - Cedar 138kV | Base Case | 219 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 226 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 231 |
| Cedar - Cincinnati 138kV | Base Case | 231 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 233 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 238 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 238 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 239 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 239 |
| Cincinnati - Walker 138kV | College Station - Grimes 138kV | 240 |
| Cincinnati - Walker 138kV | Cypress - Hartburg 500kV | 241 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 241 |
| Cincinnati - Walker 138kV | Webre - Wells 500kV | 243 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 244 |
| Rivtrin - Walker 138kV | College Station - Grimes 138kV | 245 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 245 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 246 |
| Rivtrin - Walker 138kV | Cypress - Hartburg 500kV | 248 |
| Rivtrin - Walker 138kV | Walden - April 138kV | 249 |
| Rivtrin - Walker 138kV | Webre - Wells 500kV | 251 |
| Cincinnati - Walker 138kV | Base Case | 264 |
| Rivtrin - Walker 138kV | Base Case | 271 |

AMRN

| Limiting Element | Contingency Element | ATC |
|--|--|------------|
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 150 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 173 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 177 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 178 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 182 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 185 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 187 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 189 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 189 |
| Pee Dee - Bishop 138kV | Cypress - Hartburg 500kV | 190 |
| Pee Dee - Bishop 138kV | Walden - April 138kV | 190 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 191 |
| Pee Dee - Bishop 138kV | Webre - Wells 500kV | 193 |
| Pee Dee - Bishop 138kV | April - Lake Forest 138kV | 193 |
| Bishop - Cedar 138kV | Cypress - Hartburg 500kV | 194 |
| Bishop - Cedar 138kV | Walden - April 138kV | 195 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 195 |
| Bishop - Cedar 138kV | Webre - Wells 500kV | 197 |
| Bishop - Cedar 138kV | April - Lake Forest 138kV | 197 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 202 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 203 |
| Cedar - Cincinnati 138kV | Cypress - Hartburg 500kV | 206 |
| Cedar - Cincinnati 138kV | Walden - April 138kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Cedar - Cincinnati 138kV | Webre - Wells 500kV | 209 |
| Cedar - Cincinnati 138kV | April - Lake Forest 138kV | 209 |
| Pee Dee - Bishop 138kV | Base Case | 213 |
| Bishop - Cedar 138kV | Base Case | 217 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 222 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 228 |
| Cedar - Cincinnati 138kV | Base Case | 229 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 230 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 235 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 235 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 235 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 239 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 239 |
| Cincinnati - Walker 138kV | Cypress - Hartburg 500kV | 239 |
| Cincinnati - Walker 138kV | College Station - Grimes 138kV | 240 |
| Cincinnati - Walker 138kV | April - Lake Forest 138kV | 241 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 242 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 242 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 244 |
| Rivtrin - Walker 138kV | College Station - Grimes 138kV | 245 |
| Rivtrin - Walker 138kV | Walden - April 138kV | 246 |
| Rivtrin - Walker 138kV | Cypress - Hartburg 500kV | 246 |
| Rivtrin - Walker 138kV | April - Lake Forest 138kV | 248 |
| Cincinnati - Walker 138kV | Base Case | 262 |
| Rivtrin - Walker 138kV | Base Case | 269 |

CLECO

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Greenwood - Terrebone 115kV | Webre - Wells 500kV | 0 |
| Greenwood - Terrebone 115kV | Webre - Wells 500kV | 0 |
| Richard 500/138kV transformer 1 | Richard 500/138kV transformer 2 | 0 |
| Judice - Scott1 138kV | Flander - Hopkins 138kV (CLECO/LAFA) | 0 |
| Semere - Scott2 138kV | Habetz - Richard 138kV | 61 |
| Semere - Scott2 138kV | Greenwood - Terrebone 115kV | 69 |
| Semere - Scott2 138kV | Greenwood - Terrebone 115kV | 69 |
| Semere - Scott2 138kV | North Crowley - Richard 138kV | 108 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 138 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 172 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 176 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 177 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 181 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 184 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 186 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 188 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 188 |
| Pee Dee - Bishop 138kV | Cypress - Hartburg 500kV | 189 |
| Pee Dee - Bishop 138kV | Walden - April 138kV | 189 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 190 |
| Pee Dee - Bishop 138kV | Webre - Wells 500kV | 191 |
| Pee Dee - Bishop 138kV | Webre - Wells 500kV | 191 |
| Pee Dee - Bishop 138kV | April - Lake Forest 138kV | 192 |
| Bishop - Cedar 138kV | Cypress - Hartburg 500kV | 193 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 193 |
| Bishop - Cedar 138kV | Walden - April 138kV | 194 |
| Bishop - Cedar 138kV | Webre - Wells 500kV | 195 |
| Bishop - Cedar 138kV | Webre - Wells 500kV | 195 |
| Bishop - Cedar 138kV | April - Lake Forest 138kV | 196 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 200 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Cedar - Cincinnati 138kV | Cypress - Hartburg 500kV | 205 |
| Cedar - Cincinnati 138kV | Walden - April 138kV | 205 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Cedar - Cincinnati 138kV | Webre - Wells 500kV | 207 |
| Cedar - Cincinnati 138kV | Webre - Wells 500kV | 207 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Cedar - Cincinnati 138kV | April - Lake Forest 138kV | 208 |
| Pee Dee - Bishop 138kV | Base Case | 212 |
| Bishop - Cedar 138kV | Base Case | 216 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 221 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 226 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 228 |
| Cedar - Cincinnati 138kV | Base Case | 228 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 233 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 234 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 234 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 237 |
| Cincinnati - Walker 138kV | Cypress - Hartburg 500kV | 238 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 239 |
| Cincinnati - Walker 138kV | Webre - Wells 500kV | 239 |
| Cincinnati - Walker 138kV | Webre - Wells 500kV | 239 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 241 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 241 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 244 |
| Rivtrin - Walker 138kV | College Station - Grimes 138kV | 245 |
| Rivtrin - Walker 138kV | Walden - April 138kV | 245 |
| Rivtrin - Walker 138kV | Cypress - Hartburg 500kV | 245 |
| Rivtrin - Walker 138kV | Webre - Wells 500kV | 247 |
| Cincinnati - Walker 138kV | Base Case | 261 |
| Rivtrin - Walker 138kV | Base Case | 268 |

EES

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 166 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 171 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 175 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 176 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 180 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 183 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 185 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 187 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 187 |
| Pee Dee - Bishop 138kV | Cypress - Hartburg 500kV | 188 |
| Pee Dee - Bishop 138kV | Walden - April 138kV | 189 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 189 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Pee Dee - Bishop 138kV | Webre - Wells 500kV | 191 |
| Pee Dee - Bishop 138kV | April - Lake Forest 138kV | 191 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 192 |
| Bishop - Cedar 138kV | Cypress - Hartburg 500kV | 192 |
| Bishop - Cedar 138kV | Walden - April 138kV | 193 |
| Bishop - Cedar 138kV | April - Lake Forest 138kV | 195 |
| Bishop - Cedar 138kV | Webre - Wells 500kV | 195 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 198 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 199 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 201 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Cedar - Cincinnati 138kV | Cypress - Hartburg 500kV | 205 |
| Cedar - Cincinnati 138kV | Walden - April 138kV | 205 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Cedar - Cincinnati 138kV | April - Lake Forest 138kV | 207 |
| Cedar - Cincinnati 138kV | Webre - Wells 500kV | 207 |
| Pee Dee - Bishop 138kV | Base Case | 212 |
| Bishop - Cedar 138kV | Base Case | 216 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 220 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 225 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 227 |
| Cedar - Cincinnati 138kV | Base Case | 228 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 232 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 233 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 234 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 237 |
| Cincinnati - Walker 138kV | Cypress - Hartburg 500kV | 237 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 239 |
| Cincinnati - Walker 138kV | April - Lake Forest 138kV | 240 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 240 |
| Cincinnati - Walker 138kV | Webre - Wells 500kV | 240 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 241 |
| Rivtrin - Walker 138kV | Walden - April 138kV | 244 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 244 |
| Rivtrin - Walker 138kV | Cypress - Hartburg 500kV | 245 |
| Rivtrin - Walker 138kV | College Station - Grimes 138kV | 245 |
| Rivtrin - Walker 138kV | April - Lake Forest 138kV | 247 |
| Cincinnati - Walker 138kV | Base Case | 260 |
| Rivtrin - Walker 138kV | Base Case | 268 |

EMDE

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Bull Shoals - Bull Shoals Dam SPA 161kV | St. Joe - Hilltop 161kV | 0 |
| Bull Shoals - Bull Shoals Dam SPA 161kV | Everton - St. Joe 161kV | 0 |
| Bull Shoals - Bull Shoals Dam SPA 161kV | Harrison East - Everton 161kV | 0 |
| Melborne - Sage 161kV | Dell - Independence SES 500kV | 0 |
| Melborne - Sage 161kV | ANO - Fort Smith 500kV | 0 |
| Danville - North Magazine REA 161kV | ANO - Fort Smith 500kV | 0 |
| St. Joe - Hilltop 161kV | Bull Shoals - Bull Shoals Dam SPA 161kV | 0 |
| Melborne - Sage 161kV | Newport - Newport Industrial 161kV | 0 |
| St. Joe - Hilltop 161kV | Bull Shoals - Flippin 161kV | 0 |
| Melborne - Sage 161kV | Newport AB - Newport Industrial 161kV | 0 |
| Melborne - Sage 161kV | Cash - Newport AB 161kV | 0 |
| Melborne - Sage 161kV | Cash - Jonesboro 161kV | 0 |
| Melborne - Sage 161kV | Sansouci - Shelby (TVA) 500kV | 0 |
| Melborne - Sage 161kV | Sage - Guion 161kV | 0 |
| Melborne - Sage 161kV | Newport - Swifton 161kV | 0 |
| St. Joe - Hilltop 161kV | Flippin - Summit 161kV | 0 |
| Harrison East - Everton 161kV | Bull Shoals - Bull Shoals Dam SPA 161kV | 0 |
| Melborne - Sage 161kV | Mountain View - Guion 161kV | 0 |
| Harrison East - Everton 161kV | Bull Shoals - Flippin 161kV | 16 |
| Calico Rock - Melborne 161kV | Dell - Independence SES 500kV | 87 |
| Calico Rock - Melborne 161kV | ANO - Fort Smith 500kV | 90 |
| St. Joe - Hilltop 161kV | Harrison East - Summit 161kV | 94 |
| Harrison East - Everton 161kV | Flippin - Summit 161kV | 124 |
| Harrison East - Summit 161kV | St. Joe - Hilltop 161kV | 139 |
| Calico Rock - Norfolk 161kV | ANO - Fort Smith 500kV | 155 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 158 |
| Calico Rock - Norfolk 161kV | Dell - Independence SES 500kV | 158 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Calico Rock - Melborne 161kV | Newport - Newport Industrial 161kV | 172 |
| Harrison East - Summit 161kV | Everton - St. Joe 161kV | 173 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 178 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 179 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 183 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 186 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 187 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 190 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 190 |
| Pee Dee - Bishop 138kV | Cypress - Hartburg 500kV | 190 |
| Pee Dee - Bishop 138kV | Walden - April 138kV | 191 |

| Limiting Element | Contingency Element | ATC |
|-------------------------------|---------------------------------------|------------|
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 192 |
| Calico Rock - Melborne 161kV | Newport AB - Newport Industrial 161kV | 192 |
| Pee Dee - Bishop 138kV | Webre - Wells 500kV | 193 |
| Pee Dee - Bishop 138kV | Cypress - Honey 138kV | 193 |
| Bishop - Cedar 138kV | Cypress - Hartburg 500kV | 194 |
| Bishop - Cedar 138kV | Walden - April 138kV | 195 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 195 |
| Bishop - Cedar 138kV | Webre - Wells 500kV | 197 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Bishop - Cedar 138kV | April - Lake Forest 138kV | 198 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 202 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 203 |
| Cedar - Cincinnati 138kV | Cypress - Hartburg 500kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Cedar - Cincinnati 138kV | Walden - April 138kV | 207 |
| Cedar - Cincinnati 138kV | Webre - Wells 500kV | 209 |
| Cedar - Cincinnati 138kV | April - Lake Forest 138kV | 210 |
| Pee Dee - Bishop 138kV | Base Case | 214 |
| Bishop - Cedar 138kV | Base Case | 218 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 223 |
| Calico Rock - Melborne 161kV | Cash - Newport AB 161kV | 225 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 228 |
| Cedar - Cincinnati 138kV | Base Case | 230 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 230 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 235 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 236 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 236 |
| Harrison East - Summit 161kV | Harrison East - Everton 161kV | 236 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 239 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 239 |
| Cincinnati - Walker 138kV | Cypress - Hartburg 500kV | 239 |
| Cincinnati - Walker 138kV | College Station - Grimes 138kV | 240 |
| Cincinnati - Walker 138kV | Webre - Wells 500kV | 242 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 243 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 243 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 244 |
| Rivtrin - Walker 138kV | College Station - Grimes 138kV | 245 |
| Calico Rock - Norfolk 161kV | Newport - Newport Industrial 161kV | 246 |
| Rivtrin - Walker 138kV | Walden - April 138kV | 246 |
| Rivtrin - Walker 138kV | Cypress - Hartburg 500kV | 247 |
| Rivtrin - Walker 138kV | Webre - Wells 500kV | 249 |
| St. Joe - Hilltop 161kV | Eureka Springs - Osage Springs 161kV | 251 |
| Calico Rock - Melborne 161kV | Cash - Jonesboro 161kV | 252 |
| Harrison East - Everton 161kV | Harrison East - Summit 161kV | 253 |
| St. Joe - Hilltop 161kV | ANO - Fort Smith 500kV | 255 |

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|---------------------------------------|-----|
| Cincinnati - Walker 138kV | Base Case | 262 |
| Calico Rock - Norfolk 161kV | Newport AB - Newport Industrial 161kV | 265 |
| Pleasant Hill 500/161kV transformer | ANO 500/115kV transformer | 265 |
| Rivtrin - Walker 138kV | Base Case | 269 |

Lafa

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Greenwood - Terrebone 115kV | Webre - Wells 500kV | 0 |
| Semere - Scott2 138kV | Bonin - Labbe 230kV (Lafa) | 0 |
| North Crowley - Scott1 138kV | Bonin - Labbe 230kV (Lafa) | 0 |
| Semere - Scott2 138kV | Wells (CLECO) - Point Mouton (Lafa) 230kV | 0 |
| Semere - Scott2 138kV | Point Des Mouton (Lafa) - Labbe (Lafa) 230kV | 0 |
| Richard 500/138kV transformer 1 | Richard 500/138kV transformer 2 | 0 |
| Scott1 - Bonin 138kV | Bonin - Labbe 230kV (Lafa) | 0 |
| Colonial Academy - Richard 138kV | Bonin - Labbe 230kV (Lafa) | 0 |
| North Crowley - Scott1 138kV | Wells (CLECO) - Point Mouton (Lafa) 230kV | 0 |
| North Crowley - Scott1 138kV | Point Des Mouton (Lafa) - Labbe (Lafa) 230kV | 0 |
| Scott1 - Bonin 138kV | Wells (CLECO) - Point Mouton (Lafa) 230kV | 12 |
| Semere - Scott2 138kV | Habetz - Richard 138kV | 24 |
| Colonial Academy - Richard 138kV | Wells (CLECO) - Point Mouton (Lafa) 230kV | 28 |
| Semere - Scott2 138kV | Greenwood - Terrebone 115kV | 30 |
| Scott1 - Bonin 138kV | Point Des Mouton (Lafa) - Labbe (Lafa) 230kV | 44 |
| Colonial Academy - Richard 138kV | Point Des Mouton (Lafa) - Labbe (Lafa) 230kV | 61 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 80 |
| Habetz - Richard 138kV | Bonin - Labbe 230kV (Lafa) | 90 |
| Acadia - Colonial Academy 138kV | Bonin - Labbe 230kV (Lafa) | 106 |
| Habetz - Richard 138kV | Wells (CLECO) - Point Mouton (Lafa) 230kV | 114 |
| Richard - Scott1 138kV | Bonin - Labbe 230kV (Lafa) | 117 |
| Acadia - Colonial Academy 138kV | Wells (CLECO) - Point Mouton (Lafa) 230kV | 121 |
| Richard - Scott1 138kV | Wells (CLECO) - Point Mouton (Lafa) 230kV | 128 |
| Semere - Scott2 138kV | Wells 500/230kV transformer | 147 |
| Habetz - Richard 138kV | Point Des Mouton (Lafa) - Labbe (Lafa) 230kV | 150 |
| Acadia - Colonial Academy 138kV | Point Des Mouton (Lafa) - Labbe (Lafa) 230kV | 154 |
| Richard - Scott1 138kV | Point Des Mouton (Lafa) - Labbe (Lafa) 230kV | 159 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| North Crowley - Scott1 138kV | Habetz - Richard 138kV | 168 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 170 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 174 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 175 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 179 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |

| Limiting Element | Contingency Element | ATC |
|----------------------------------|--|------------|
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 182 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 185 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 186 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 186 |
| Pee Dee - Bishop 138kV | Walden - April 138kV | 188 |
| Pee Dee - Bishop 138kV | Cypress - Hartburg 500kV | 188 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 189 |
| Pee Dee - Bishop 138kV | Webre - Wells 500kV | 189 |
| Acadia GSU - Scanlan 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 190 |
| Pee Dee - Bishop 138kV | April - Lake Forest 138kV | 191 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 191 |
| Bishop - Cedar 138kV | Walden - April 138kV | 192 |
| Bishop - Cedar 138kV | Cypress - Hartburg 500kV | 192 |
| Bishop - Cedar 138kV | Webre - Wells 500kV | 193 |
| Bishop - Cedar 138kV | April - Lake Forest 138kV | 195 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 198 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 200 |
| Champagne - East Opelousas 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 201 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Cedar - Cincinnati 138kV | Walden - April 138kV | 204 |
| Cedar - Cincinnati 138kV | Cypress - Hartburg 500kV | 204 |
| Cedar - Cincinnati 138kV | Webre - Wells 500kV | 205 |
| Cedar - Cincinnati 138kV | April - Lake Forest 138kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Semere - Scott2 138kV | Bonin - Cecelia 138kV | 211 |
| Pee Dee - Bishop 138kV | Base Case | 211 |
| Bishop - Cedar 138kV | Base Case | 215 |
| Acadia GSU - Scanlan 138kV | Bonin - Labbe 230kV (LAFA) | 218 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 219 |
| Acadia GSU - Scanlan 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 223 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 224 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 226 |
| Cedar - Cincinnati 138kV | Base Case | 227 |
| North Crowley - Richard 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 229 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 231 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 231 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 232 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 236 |
| Champagne - East Opelousas 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 236 |
| Cincinnati - Walker 138kV | Cypress - Hartburg 500kV | 236 |
| Cincinnati - Walker 138kV | Webre - Wells 500kV | 237 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 238 |
| Cincinnati - Walker 138kV | April - Lake Forest 138kV | 238 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 239 |
| Champagne - East Opelousas 138kV | Bonin - Labbe 230kV (LAFA) | 240 |

| Limiting Element | Contingency Element | ATC |
|----------------------------------|--|-----|
| Rivtrin - Walker 138kV | Walden - April 138kV | 243 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 243 |
| Rivtrin - Walker 138kV | Cypress - Hartburg 500kV | 244 |
| Rivtrin - Walker 138kV | College Station - Grimes 138kV | 244 |
| Rivtrin - Walker 138kV | Webre - Wells 500kV | 245 |
| Colonial Academy - Richard 138kV | Habetz - Richard 138kV | 252 |
| North Crowley - Scott1 138kV | Wells 500/230kV transformer | 256 |
| Cincinnati - Walker 138kV | Base Case | 259 |
| North Crowley - Richard 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 260 |
| North Crowley - Scott1 138kV | Greenwood - Terrebone 115kV | 265 |
| Rivtrin - Walker 138kV | Base Case | 266 |
| Greenwood - Humphrey 115kV | Webre - Wells 500kV | 266 |

LAGN

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 137 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 170 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 174 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 175 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 179 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 182 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 185 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 186 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 186 |
| Pee Dee - Bishop 138kV | Walden - April 138kV | 188 |
| Pee Dee - Bishop 138kV | Cypress - Hartburg 500kV | 188 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 189 |
| Pee Dee - Bishop 138kV | April - Lake Forest 138kV | 190 |
| Pee Dee - Bishop 138kV | Webre - Wells 500kV | 191 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 191 |
| Bishop - Cedar 138kV | Walden - April 138kV | 192 |
| Bishop - Cedar 138kV | Cypress - Hartburg 500kV | 192 |
| Bishop - Cedar 138kV | April - Lake Forest 138kV | 194 |
| Bishop - Cedar 138kV | Webre - Wells 500kV | 195 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 198 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 200 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Cedar - Cincinnati 138kV | Walden - April 138kV | 204 |
| Cedar - Cincinnati 138kV | Cypress - Hartburg 500kV | 204 |
| Cedar - Cincinnati 138kV | April - Lake Forest 138kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Cedar - Cincinnati 138kV | Webre - Wells 500kV | 207 |
| Pee Dee - Bishop 138kV | Base Case | 211 |
| Bishop - Cedar 138kV | Base Case | 215 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 219 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 224 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 226 |
| Cedar - Cincinnati 138kV | Base Case | 227 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 231 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 231 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 232 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 235 |
| Cincinnati - Walker 138kV | Cypress - Hartburg 500kV | 237 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 238 |
| Cincinnati - Walker 138kV | April - Lake Forest 138kV | 238 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 238 |
| Cincinnati - Walker 138kV | Webre - Wells 500kV | 239 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 239 |
| Rivtrin - Walker 138kV | Walden - April 138kV | 243 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 243 |
| Rivtrin - Walker 138kV | Cypress - Hartburg 500kV | 244 |
| Rivtrin - Walker 138kV | College Station - Grimes 138kV | 244 |
| Rivtrin - Walker 138kV | April - Lake Forest 138kV | 245 |
| Cincinnati - Walker 138kV | Base Case | 259 |
| Rivtrin - Walker 138kV | Base Case | 266 |

LEPA

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Semere - Scott2 138kV | Bonin - Labbe 230kV (LAFA) | 0 |
| Scott1 - Bonin 138kV | Bonin - Labbe 230kV (LAFA) | 0 |
| Semere - Scott2 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 0 |
| Bonin - Cecelia 138kV | Colonial Academy - Richard 138kV | 0 |
| North Crowley - Scott1 138kV | Bonin - Labbe 230kV (LAFA) | 0 |
| Semere - Scott2 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 0 |
| Bonin - Cecelia 138kV | Acadia - Colonial Academy 138kV | 0 |
| Bonin - Cecelia 138kV | Acadia GSU - Scanlan 138kV | 0 |
| North Crowley - Scott1 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 0 |
| Judice - Scott1 138kV | Flander - Hopkins 138kV (CLECO/LAFA) | 0 |
| Colonial Academy - Richard 138kV | Bonin - Labbe 230kV (LAFA) | 0 |
| North Crowley - Scott1 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 0 |
| Colonial Academy - Richard 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 86 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 97 |

| Limiting Element | Contingency Element | ATC |
|----------------------------------|--|------------|
| Raceland - Coteau 115kV | Terrebone 230/115kV transformer | 138 |
| Scott1 - Bonin 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 148 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 175 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 176 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 180 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 183 |
| Colonial Academy - Richard 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 185 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 185 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 187 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 187 |
| Greenwood - Terrebone 115kV | Bayou Sales - WaxLake 138kV (CLECO) | 187 |
| Pee Dee - Bishop 138kV | Cypress - Hartburg 500kV | 188 |
| Pee Dee - Bishop 138kV | Walden - April 138kV | 188 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 189 |
| Pee Dee - Bishop 138kV | April - Lake Forest 138kV | 191 |
| Pee Dee - Bishop 138kV | Webre - Wells 500kV | 191 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 192 |
| Bishop - Cedar 138kV | Cypress - Hartburg 500kV | 192 |
| Bishop - Cedar 138kV | Walden - April 138kV | 193 |
| Bishop - Cedar 138kV | April - Lake Forest 138kV | 195 |
| Bishop - Cedar 138kV | Webre - Wells 500kV | 195 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Acadia - Colonial Academy 138kV | Bonin - Labbe 230kV (LAFA) | 198 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 199 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 201 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bonin - Cecelia 138kV | Flander - Hopkins 138kV (CLECO/LAFA) | 203 |
| Cedar - Cincinnati 138kV | Walden - April 138kV | 204 |
| Cedar - Cincinnati 138kV | Cypress - Hartburg 500kV | 204 |
| Semere - Scott2 138kV | Bonin - Cecelia 138kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Cedar - Cincinnati 138kV | April - Lake Forest 138kV | 207 |
| Cedar - Cincinnati 138kV | Webre - Wells 500kV | 207 |
| Bonin - Cecelia 138kV | Scanlan - Scott2 138kV | 210 |
| Pee Dee - Bishop 138kV | Base Case | 211 |
| Habetz - Richard 138kV | Bonin - Labbe 230kV (LAFA) | 213 |
| Bishop - Cedar 138kV | Base Case | 215 |
| Bonin - Cecelia 138kV | Semere - Scott2 138kV | 219 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 219 |

| Limiting Element | Contingency Element | ATC |
|---------------------------------|--------------------------------------|------------|
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 225 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 227 |
| Cedar - Cincinnati 138kV | Base Case | 227 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 232 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 232 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 233 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 236 |
| Greenwood - Terrebone 115kV | Bayou Sales - Teche 138kV (CLECO) | 236 |
| Cincinnati - Walker 138kV | Cypress - Hartburg 500kV | 237 |
| Chauvin - Valentine 115kV | Coteau - Houma 115kV | 238 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 238 |
| Cincinnati - Walker 138kV | April - Lake Forest 138kV | 239 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 239 |
| Cincinnati - Walker 138kV | College Station - Grimes 138kV | 239 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 240 |
| Rivtrin - Walker 138kV | Walden - April 138kV | 243 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 244 |
| Rivtrin - Walker 138kV | Cypress - Hartburg 500kV | 244 |
| Rivtrin - Walker 138kV | College Station - Grimes 138kV | 245 |
| Rivtrin - Walker 138kV | April - Lake Forest 138kV | 246 |
| Judice - Scott1 138kV | Greenwood - Terrebone 115kV | 249 |
| Chauvin - Ashland 115kV | Coteau - Houma 115kV | 250 |
| Terrebone 230/115kV transformer | Raceland - Coteau 115kV | 251 |
| Judice - Meaux 138kV | Flander - Hopkins 138kV (CLECO/LAFA) | 251 |
| Vacherie - Waterford 230kV | Raceland - Waterford 230kV | 251 |
| Cincinnati - Walker 138kV | Base Case | 260 |
| Moril - Cecelia 138kV | Flander - Hopkins 138kV (CLECO/LAFA) | 261 |
| Rivtrin - Walker 138kV | Base Case | 267 |
| Greenwood - Terrebone 115kV | ELPTAP - Wax Lake 138kV (CLECO) | 270 |

OKGE

| Limiting Element | Contingency Element | ATC |
|--|--|------------|
| Danville - North Magazine REA 161kV | ANO - Fort Smith 500kV | 0 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 165 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 174 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 178 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 179 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 184 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 186 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 188 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 190 |
| Pee Dee - Bishop 138kV | Cypress - Hartburg 500kV | 191 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 191 |
| Pee Dee - Bishop 138kV | Walden - April 138kV | 191 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 192 |
| Pee Dee - Bishop 138kV | Webre - Wells 500kV | 193 |
| Pee Dee - Bishop 138kV | Cypress - Honey 138kV | 194 |
| Bishop - Cedar 138kV | Cypress - Hartburg 500kV | 195 |
| Bishop - Cedar 138kV | Walden - April 138kV | 196 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 196 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Bishop - Cedar 138kV | Webre - Wells 500kV | 197 |
| Bishop - Cedar 138kV | Cypress - Honey 138kV | 198 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 203 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 204 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Cedar - Cincinnati 138kV | Cypress - Hartburg 500kV | 207 |
| Cedar - Cincinnati 138kV | Walden - April 138kV | 207 |
| Cedar - Cincinnati 138kV | Webre - Wells 500kV | 209 |
| Cedar - Cincinnati 138kV | April - Lake Forest 138kV | 210 |
| Pee Dee - Bishop 138kV | Base Case | 214 |
| Bishop - Cedar 138kV | Base Case | 218 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 224 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 229 |
| Cedar - Cincinnati 138kV | Base Case | 230 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 231 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 236 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 236 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 237 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 239 |
| Cincinnati - Walker 138kV | Cypress - Hartburg 500kV | 240 |
| Cincinnati - Walker 138kV | College Station - Grimes 138kV | 240 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 240 |
| Cincinnati - Walker 138kV | Webre - Wells 500kV | 242 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 244 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 244 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 244 |
| Rivtrin - Walker 138kV | College Station - Grimes 138kV | 245 |
| Rivtrin - Walker 138kV | Walden - April 138kV | 247 |
| Rivtrin - Walker 138kV | Cypress - Hartburg 500kV | 247 |
| Rivtrin - Walker 138kV | Webre - Wells 500kV | 249 |
| Cincinnati - Walker 138kV | Base Case | 263 |
| Rivtrin - Walker 138kV | Base Case | 270 |

SMEPA

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 123 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 171 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 176 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 177 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 181 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 184 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 186 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 188 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 188 |
| Pee Dee - Bishop 138kV | Cypress - Hartburg 500kV | 189 |
| Pee Dee - Bishop 138kV | Walden - April 138kV | 189 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 190 |
| Pee Dee - Bishop 138kV | April - Lake Forest 138kV | 192 |
| Pee Dee - Bishop 138kV | Webre - Wells 500kV | 192 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 193 |
| Bishop - Cedar 138kV | Cypress - Hartburg 500kV | 193 |
| Bishop - Cedar 138kV | Walden - April 138kV | 193 |
| Bishop - Cedar 138kV | April - Lake Forest 138kV | 196 |
| Bishop - Cedar 138kV | Webre - Wells 500kV | 196 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 200 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 202 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Cedar - Cincinnati 138kV | Walden - April 138kV | 205 |
| Cedar - Cincinnati 138kV | Cypress - Hartburg 500kV | 205 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Cedar - Cincinnati 138kV | April - Lake Forest 138kV | 208 |
| Cedar - Cincinnati 138kV | Webre - Wells 500kV | 208 |
| Pee Dee - Bishop 138kV | Base Case | 212 |
| Bishop - Cedar 138kV | Base Case | 216 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 221 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 226 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 228 |
| Cedar - Cincinnati 138kV | Base Case | 228 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 233 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 233 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 234 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 237 |
| Cincinnati - Walker 138kV | Cypress - Hartburg 500kV | 238 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 238 |
| Cincinnati - Walker 138kV | College Station - Grimes 138kV | 239 |
| Cincinnati - Walker 138kV | April - Lake Forest 138kV | 240 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 240 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 241 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 244 |
| Rivtrin - Walker 138kV | Walden - April 138kV | 244 |
| Rivtrin - Walker 138kV | College Station - Grimes 138kV | 245 |
| Rivtrin - Walker 138kV | Cypress - Hartburg 500kV | 245 |
| Rivtrin - Walker 138kV | April - Lake Forest 138kV | 247 |
| Cincinnati - Walker 138kV | Base Case | 260 |
| Rivtrin - Walker 138kV | Base Case | 268 |

SOCO

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 136 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 172 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 176 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 177 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 182 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 184 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 186 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 188 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 189 |
| Pee Dee - Bishop 138kV | Cypress - Hartburg 500kV | 189 |
| Pee Dee - Bishop 138kV | Walden - April 138kV | 190 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 190 |
| Pee Dee - Bishop 138kV | Webre - Wells 500kV | 192 |
| Pee Dee - Bishop 138kV | April - Lake Forest 138kV | 192 |
| Bishop - Cedar 138kV | Cypress - Hartburg 500kV | 193 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 194 |
| Bishop - Cedar 138kV | Walden - April 138kV | 194 |
| Bishop - Cedar 138kV | Webre - Wells 500kV | 196 |
| Bishop - Cedar 138kV | April - Lake Forest 138kV | 196 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 201 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 202 |
| Cedar - Cincinnati 138kV | Cypress - Hartburg 500kV | 206 |
| Cedar - Cincinnati 138kV | Walden - April 138kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Cedar - Cincinnati 138kV | April - Lake Forest 138kV | 208 |
| Cedar - Cincinnati 138kV | Webre - Wells 500kV | 208 |
| Pee Dee - Bishop 138kV | Base Case | 213 |
| Bishop - Cedar 138kV | Base Case | 217 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 221 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 227 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 229 |
| Cedar - Cincinnati 138kV | Base Case | 229 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 234 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 234 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 234 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 238 |
| Cincinnati - Walker 138kV | Cypress - Hartburg 500kV | 238 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 239 |
| Cincinnati - Walker 138kV | College Station - Grimes 138kV | 240 |
| Cincinnati - Walker 138kV | April - Lake Forest 138kV | 240 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 241 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 242 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 244 |
| Rivtrin - Walker 138kV | College Station - Grimes 138kV | 245 |
| Rivtrin - Walker 138kV | Walden - April 138kV | 245 |
| Rivtrin - Walker 138kV | Cypress - Hartburg 500kV | 245 |
| Rivtrin - Walker 138kV | April - Lake Forest 138kV | 248 |
| Cincinnati - Walker 138kV | Base Case | 261 |
| Rivtrin - Walker 138kV | Base Case | 268 |

SPA

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Melborne - Sage 161kV | Dell - Independence SES 500kV | 0 |
| Melborne - Sage 161kV | ANO - Fort Smith 500kV | 0 |
| Melborne - Sage 161kV | Newport - Newport Industrial 161kV | 0 |
| Melborne - Sage 161kV | Newport AB - Newport Industrial 161kV | 0 |
| Melborne - Sage 161kV | Cash - Newport AB 161kV | 0 |
| Melborne - Sage 161kV | Cash - Jonesboro 161kV | 0 |
| Melborne - Sage 161kV | Sansouci - Shelby (TVA) 500kV | 0 |
| Melborne - Sage 161kV | Sage - Guion 161kV | 0 |
| Melborne - Sage 161kV | Newport - Swifton 161kV | 0 |
| Melborne - Sage 161kV | Mountain View - Guion 161kV | 0 |
| Calico Rock - Melborne 161kV | Dell - Independence SES 500kV | 72 |
| Calico Rock - Melborne 161kV | ANO - Fort Smith 500kV | 77 |
| Lake Conway - Mayflower 115kV | Pleasant Hill 500/161kV transformer | 122 |
| Calico Rock - Norfolk 161kV | Dell - Independence SES 500kV | 130 |
| Calico Rock - Norfolk 161kV | ANO - Fort Smith 500kV | 132 |
| Pleasant Hill 500/161kV transformer | ANO 500/115kV transformer | 135 |
| Calico Rock - Melborne 161kV | Newport - Newport Industrial 161kV | 136 |
| Calico Rock - Melborne 161kV | Newport AB - Newport Industrial 161kV | 151 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 158 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Calico Rock - Melborne 161kV | Cash - Newport AB 161kV | 177 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 177 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 179 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 183 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 186 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 187 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 190 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 190 |
| Pee Dee - Bishop 138kV | Cypress - Hartburg 500kV | 190 |
| Pee Dee - Bishop 138kV | Walden - April 138kV | 191 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 191 |
| Pee Dee - Bishop 138kV | Webre - Wells 500kV | 193 |
| Pee Dee - Bishop 138kV | April - Lake Forest 138kV | 193 |
| Calico Rock - Norfolk 161kV | Newport - Newport Industrial 161kV | 194 |
| Bishop - Cedar 138kV | Cypress - Hartburg 500kV | 194 |
| Bishop - Cedar 138kV | Walden - April 138kV | 195 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 195 |
| Bishop - Cedar 138kV | Webre - Wells 500kV | 197 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |

| Limiting Element | Contingency Element | ATC |
|--|---------------------------------------|------------|
| Bishop - Cedar 138kV | April - Lake Forest 138kV | 197 |
| Calico Rock - Melborne 161kV | Cash - Jonesboro 161kV | 199 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 202 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 203 |
| Cedar - Cincinnati 138kV | Cypress - Hartburg 500kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Cedar - Cincinnati 138kV | Walden - April 138kV | 207 |
| Cedar - Cincinnati 138kV | Webre - Wells 500kV | 209 |
| Calico Rock - Norfolk 161kV | Newport AB - Newport Industrial 161kV | 209 |
| Cedar - Cincinnati 138kV | April - Lake Forest 138kV | 209 |
| Pee Dee - Bishop 138kV | Base Case | 213 |
| Bishop - Cedar 138kV | Base Case | 218 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 223 |
| Calico Rock - Melborne 161kV | Newport - Swifton 161kV | 227 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 228 |
| Calico Rock - Melborne 161kV | Sansouci - Shelby (TVA) 500kV | 229 |
| Cedar - Cincinnati 138kV | Base Case | 230 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 230 |
| Calico Rock - Melborne 161kV | Sage - Guion 161kV | 235 |
| Calico Rock - Norfolk 161kV | Cash - Newport AB 161kV | 235 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 235 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 236 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 236 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 239 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 239 |
| Cincinnati - Walker 138kV | Cypress - Hartburg 500kV | 239 |
| Cincinnati - Walker 138kV | College Station - Grimes 138kV | 240 |
| Cincinnati - Walker 138kV | Webre - Wells 500kV | 242 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 243 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 243 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 244 |
| Russellville East - Russellville North 161kV | ANO - Fort Smith 500kV | 244 |
| Rivtrin - Walker 138kV | College Station - Grimes 138kV | 245 |
| Rivtrin - Walker 138kV | Walden - April 138kV | 246 |
| Rivtrin - Walker 138kV | Cypress - Hartburg 500kV | 246 |
| Rivtrin - Walker 138kV | Webre - Wells 500kV | 249 |
| Calico Rock - Melborne 161kV | Mountain View - Guion 161kV | 250 |
| Calico Rock - Norfolk 161kV | Cash - Jonesboro 161kV | 257 |
| Cincinnati - Walker 138kV | Base Case | 262 |
| Rivtrin - Walker 138kV | Base Case | 269 |

TVA

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 143 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 172 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 176 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 178 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 182 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 185 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 187 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 189 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 189 |
| Pee Dee - Bishop 138kV | Cypress - Hartburg 500kV | 189 |
| Pee Dee - Bishop 138kV | Walden - April 138kV | 190 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 191 |
| Pee Dee - Bishop 138kV | Webre - Wells 500kV | 192 |
| Pee Dee - Bishop 138kV | April - Lake Forest 138kV | 193 |
| Bishop - Cedar 138kV | Cypress - Hartburg 500kV | 194 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 194 |
| Bishop - Cedar 138kV | Walden - April 138kV | 194 |
| Bishop - Cedar 138kV | Webre - Wells 500kV | 196 |
| Bishop - Cedar 138kV | April - Lake Forest 138kV | 197 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 201 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 203 |
| Cedar - Cincinnati 138kV | Cypress - Hartburg 500kV | 206 |
| Cedar - Cincinnati 138kV | Walden - April 138kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Cedar - Cincinnati 138kV | Webre - Wells 500kV | 208 |
| Cedar - Cincinnati 138kV | April - Lake Forest 138kV | 209 |
| Pee Dee - Bishop 138kV | Base Case | 213 |
| Bishop - Cedar 138kV | Base Case | 217 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 222 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 227 |
| Cedar - Cincinnati 138kV | Base Case | 229 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 229 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 234 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 234 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 235 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Cincinnati - Walker 138kV | Walden - April 138kV | 238 |
| Cincinnati - Walker 138kV | Cypress - Hartburg 500kV | 238 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 239 |
| Cincinnati - Walker 138kV | College Station - Grimes 138kV | 240 |
| Cincinnati - Walker 138kV | April - Lake Forest 138kV | 241 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 241 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 242 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 244 |
| Rivtrin - Walker 138kV | College Station - Grimes 138kV | 245 |
| Rivtrin - Walker 138kV | Walden - April 138kV | 245 |
| Rivtrin - Walker 138kV | Cypress - Hartburg 500kV | 246 |
| Rivtrin - Walker 138kV | April - Lake Forest 138kV | 248 |
| Cincinnati - Walker 138kV | Base Case | 261 |
| Rivtrin - Walker 138kV | Base Case | 268 |

APPENDIX A-D: DETAILS OF SCENARIO 2

2012

AECI

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|----------------------------------|-----|
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 119 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 215 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 219 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 219 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 220 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 220 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 220 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 224 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 225 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 225 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 225 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 228 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 230 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 230 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 232 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 238 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 241 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 242 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 242 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Pee Dee - Bishop 138kV | Base Case | 245 |
| Bishop - Cedar 138kV | Base Case | 250 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 262 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 267 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 269 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 269 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 272 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 275 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 275 |

AEPW

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|----------------------------------|-----|
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 48 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 128 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 218 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 219 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 222 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 222 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 222 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 222 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 223 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 226 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 226 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 226 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 227 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 228 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 230 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 231 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 232 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 235 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 238 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 238 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 241 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 243 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 244 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 244 |
| Pee Dee - Bishop 138kV | Base Case | 247 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Bishop - Cedar 138kV | Base Case | 252 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 264 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 271 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 271 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 271 |

AMRN

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|----------------------------------|------------|
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 118 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 214 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 219 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 219 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 220 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 220 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 220 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 224 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 224 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 225 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 225 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 228 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 229 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 230 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 232 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 237 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 240 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 242 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 242 |
| Pee Dee - Bishop 138kV | Base Case | 245 |
| Bishop - Cedar 138kV | Base Case | 249 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 262 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 267 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 268 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 268 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 272 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 274 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 274 |

CLECO

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|-------------------------------|------------|
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 113 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 213 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 215 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 218 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 218 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 219 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 219 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 219 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 222 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 222 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 223 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 223 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 223 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 224 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 224 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 229 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 229 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 230 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 235 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 235 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 236 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 239 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 241 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 241 |
| Pee Dee - Bishop 138kV | Base Case | 244 |
| Bishop - Cedar 138kV | Base Case | 248 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 261 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 265 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 267 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 267 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 270 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 273 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 273 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 275 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 275 |

EES

| Limiting Element | Contingency Element | ATC |
|------------------------------------|---|------------|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Willow Glen 500/230kV Transformer | Coly 500/230kV transformer | 0 |
| Willow Glen 500/230kV Transformer | Willow Glen - Willow Glen 2 500/138kV transformer 1 | 0 |
| Addis - Big Cajun 1 230kV | Willow Glen - Webre 500kV | 0 |

| Limiting Element | Contingency Element | ATC |
|---|-----------------------------------|------------|
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 44 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 102 |
| Willow Glen - Willow Glen 2 500/138kV transformer 1 | Willow Glen 500/230kV Transformer | 151 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 166 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 198 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 212 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 216 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 218 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 218 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 219 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 219 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 222 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 222 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 223 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 223 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 224 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 224 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 226 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 228 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 228 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 229 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 235 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 235 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 235 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 239 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 240 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 241 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 241 |
| Pee Dee - Bishop 138kV | Base Case | 244 |
| Bishop - Cedar 138kV | Base Case | 248 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 251 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 256 |
| Cedar - Cincinnati 138kV | Base Case | 261 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 264 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 267 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 267 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 270 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 272 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 272 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 273 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 274 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 275 |

EMDE

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|----------------------------------|-----|
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 120 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 215 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 219 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 220 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 220 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 220 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 221 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 224 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 225 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 225 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 226 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 228 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 230 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 230 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 233 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 236 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 238 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 241 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 243 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 243 |
| Pee Dee - Bishop 138kV | Base Case | 246 |
| Bishop - Cedar 138kV | Base Case | 250 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 263 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 268 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 269 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 269 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 273 |

Lafa

| Limiting Element | Contingency Element | ATC |
|--|--|------------|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Webre 500/230kV transformer Supplemental Upgrade 9Mile | Webre - Wells 500kV | 45 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 46 |
| Scott1 - Bonin 138kV | Wells (CLECO) - Point Mouton (Lafa) 230kV | 62 |
| Scott1 - Bonin 138kV | Point Des Mouton (Lafa) - Labbe (Lafa) 230kV | 93 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 107 |
| Semere - Scott2 138kV | Wells (CLECO) - Point Mouton (Lafa) 230kV | 154 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Semere - Scott2 138kV | Point Des Mouton (Lafa) - Labbe (Lafa) 230kV | 185 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 211 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 215 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 215 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 216 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 218 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 218 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 218 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 221 |

| Limiting Element | Contingency Element | ATC |
|------------------------------|--|------------|
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 221 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 222 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 222 |
| North Crowley - Scott1 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 222 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 223 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 223 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 225 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 227 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 227 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 228 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 233 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 234 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 234 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 237 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 240 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 240 |
| Pee Dee - Bishop 138kV | Base Case | 243 |
| Bishop - Cedar 138kV | Base Case | 247 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| North Crowley - Scott1 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 253 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Semere - Scott2 138kV | Richard 500/230kV transformer | 256 |
| Semere - Scott2 138kV | Richard - Sellers Road 230kV | 257 |
| Cedar - Cincinnati 138kV | Base Case | 259 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 262 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 266 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 266 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 268 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 270 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 271 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 273 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 273 |
| Cincinnati - Walker 138kV | Hartburg - Cottonwood2 500kV | 274 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 274 |

LAGN

| Limiting Element | Contingency Element | ATC |
|------------------------------------|---|------------|
| Willow Glen 500/230kV Transformer | Coly 500/230kV transformer | 0 |
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Willow Glen 500/230kV Transformer | Willow Glen - Willow Glen 2 500/138kV transformer 1 | 0 |

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|----------------------------------|------------|
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 46 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 108 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 211 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 215 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 215 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 216 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 218 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 218 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 218 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 221 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 221 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 222 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 222 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 223 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 223 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 225 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 227 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 228 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 228 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 233 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 234 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 234 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 237 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 240 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 240 |
| Pee Dee - Bishop 138kV | Base Case | 243 |
| Bishop - Cedar 138kV | Base Case | 247 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 259 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 262 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 266 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 266 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 268 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 270 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 271 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 273 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 273 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 274 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 275 |

LEPA

| Limiting Element | Contingency Element | ATC |
|--|---|-----|
| Addis - Big Cajun 1 230kV | Enjay - Fancy 230kV | 0 |
| Addis - Big Cajun 1 230kV | Enjay - Jaguar 230kV | 0 |
| Addis - Big Cajun 1 230kV | Jaguar - Tap Point Esso 230kV | 0 |
| Addis - Big Cajun 1 230kV | Coly - McKnight 500kV | 0 |
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Willow Glen 500/230kV Transformer | Coly 500/230kV transformer | 0 |
| Addis - Big Cajun 1 230kV | Willow Glen 500/230kV Transformer | 0 |
| Willow Glen 500/230kV Transformer | Willow Glen - Willow Glen 2 500/138kV transformer 1 | 0 |
| Addis - Big Cajun 1 230kV | Willow Glen - Webre 500kV | 0 |
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Greenwood - Terrebone 115kV Supplemental Upgrade SunEnergy | Bayou Sales - WaxLake 138kV (CLECO) | 35 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 46 |
| Chauvin - Valentine 115kV | Coteau - Houma 115kV | 72 |
| Greenwood - Terrebone 115kV Supplemental Upgrade SunEnergy | Bayou Sales - Teche 138kV (CLECO) | 82 |
| Chauvin - Ashland 115kV | Coteau - Houma 115kV | 84 |
| Raceland - Coteau 115kV | Terrebone 230/115kV transformer | 87 |
| Willow Glen - Willow Glen 2 500/138kV transformer 1 | Willow Glen 500/230kV Transformer | 107 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 109 |
| Greenwood - Terrebone 115kV Supplemental Upgrade SunEnergy | ELPTAP - Wax Lake 138kV (CLECO) | 119 |
| Ashland - Houma 115kV | Coteau - Houma 115kV | 160 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Conway - Wyandotte 138kV | Addis - Wilbert 138kV | 166 |
| Geismar - Wyandotte 138kV | Addis - Wilbert 138kV | 168 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Coteau - Houma 115kV | Chauvin - Valentine 115kV | 172 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Greenwood - Terrebone 115kV Supplemental Upgrade SunEnergy | Bayou Vista - ELPTAP 138kV (CLECO) | 179 |

| Limiting Element | Contingency Element | ATC |
|-----------------------------------|---|------------|
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Greenwood - Humphrey 115kV | Bayou Sales - WaxLake 138kV (CLECO) | 181 |
| Terrebone 230/115kV transformer | Bayou Sales - WaxLake 138kV (CLECO) | 184 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Coteau - Houma 115kV | Chauvin - Ashland 115kV | 200 |
| Gibson - Humphrey 115kV | Bayou Sales - WaxLake 138kV (CLECO) | 201 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Terrebone 230/115kV transformer | Bayou Sales - Teche 138kV (CLECO) | 203 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 212 |
| Raceland - Coteau 115kV | Terrebone - Coteau 115kV | 212 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 215 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 216 |
| Houma - City of Houma 115kV | Alden - Lewis Creek SES 138kV | 216 |
| Houma - City of Houma 115kV | Arcadia - TRussell's Crossing(LAGN) 115kV | 216 |
| Houma - City of Houma 115kV | Black Rock AECC - Walnut Ridge 161kV | 216 |
| Houma - City of Houma 115kV | Dolet Hills 345/230kV transformer (CLECO) | 216 |
| Houma - City of Houma 115kV | Lacon - Lewis Creek SES 138kV | 216 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 217 |
| Terrebone 230/115kV transformer | ELPTAP - Wax Lake 138kV (CLECO) | 218 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 218 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 218 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 218 |
| Terrebone 230/115kV transformer | Raceland - Coteau 115kV | 219 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 221 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 221 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 222 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 222 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 223 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 223 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 226 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 228 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 228 |
| Terrebone - Coteau 115kV | Raceland - Coteau 115kV | 228 |
| Greenwood - Humphrey 115kV | Bayou Sales - Teche 138kV (CLECO) | 228 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 229 |
| Willow Glen 500/230kV Transformer | Jaguar - Tap Point Esso 230kV | 232 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 234 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 234 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 234 |
| Houma - City of Houma 115kV | Base Case | 237 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 238 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |

| Limiting Element | Contingency Element | ATC |
|---|------------------------------------|------------|
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 240 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 240 |
| Terrebone 230/115kV transformer | Bayou Vista - ELPTAP 138kV (CLECO) | 242 |
| Pee Dee - Bishop 138kV | Base Case | 243 |
| Coteau - Houma 115kV | Waterford - Valentine 230kV | 245 |
| Coteau - Houma 115kV | Valentine 230/115kV transformer | 245 |
| Bishop - Cedar 138kV | Base Case | 247 |
| Gibson - Humphrey 115kV | Bayou Sales - Teche 138kV (CLECO) | 248 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 260 |
| Coteau - Houma 115kV | Ashland - Houma 115kV | 261 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 263 |
| Willow Glen 500/230kV Transformer | Addis - Big Cajun 1 230kV | 264 |
| Greenwood - Humphrey 115kV | ELPTAP - Wax Lake 138kV (CLECO) | 265 |
| Vacherie - Waterford 230kV Supplemental Upgrade SunEnergy | Raceland - Waterford 230kV | 265 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 266 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 266 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 269 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 271 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 272 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 273 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 273 |
| Cincinnati - Walker 138kV | Hartburg - Cottonwood2 500kV | 274 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 275 |

OKGE

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|-------------------------------|------------|
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 122 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 216 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 219 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 220 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 221 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 221 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 222 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 225 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 225 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 225 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 226 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 226 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 226 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 229 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 230 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 230 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 233 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 237 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 237 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 242 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 243 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 243 |
| Pee Dee - Bishop 138kV | Base Case | 246 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Bishop - Cedar 138kV | Base Case | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 263 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 268 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 270 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 270 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 274 |

SMEPA

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|-------------------------------|------------|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 113 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 213 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 215 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 217 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 218 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 218 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 219 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 219 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 222 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 223 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 223 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 223 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 224 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 224 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 227 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 228 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 228 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 230 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 235 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 235 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 236 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 239 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 241 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 241 |
| Pee Dee - Bishop 138kV | Base Case | 244 |
| Bishop - Cedar 138kV | Base Case | 248 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 261 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 265 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 267 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 267 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 270 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 272 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 273 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 274 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 274 |

SOCO

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|----------------------------------|-----|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 115 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 214 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 218 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 218 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 219 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 219 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 219 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 223 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 223 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 223 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 224 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 224 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 225 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 227 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 229 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 229 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 231 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 235 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 235 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 236 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 240 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 242 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 242 |
| Pee Dee - Bishop 138kV | Base Case | 244 |
| Bishop - Cedar 138kV | Base Case | 249 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Cedar - Cincinnati 138kV | Base Case | 261 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 266 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 268 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 268 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 271 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 273 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 273 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 275 |

SPA

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|----------------------------------|-----|
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 120 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 215 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 219 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 219 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 220 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 220 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 221 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 224 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 225 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 225 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 226 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 228 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 230 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 230 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 232 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 238 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 241 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 243 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 243 |
| Pee Dee - Bishop 138kV | Base Case | 245 |
| Bishop - Cedar 138kV | Base Case | 250 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 262 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 267 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 269 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 269 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 273 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 275 |

TVA

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|----------------------------------|-----|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 116 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 214 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 218 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 218 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 219 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 219 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 220 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 223 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 224 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 224 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 225 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 225 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 227 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 229 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 229 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 231 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 237 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 240 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 242 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 242 |
| Pee Dee - Bishop 138kV | Base Case | 245 |
| Bishop - Cedar 138kV | Base Case | 249 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 262 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 266 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 268 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 268 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 271 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 274 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 274 |

APPENDIX A-E: DETAILS OF SCENARIO 3 2012

AECI

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 163 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 193 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 197 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 198 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 203 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 203 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 204 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 204 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 206 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Navasota - Tubular 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 208 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 209 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 209 |
| Pee Dee - Bishop 138kV | Dobbin - Tubular 138kV | 209 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 210 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 210 |
| Bishop - Cedar 138kV | Navasota - Tubular 138kV | 211 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 212 |
| Bishop - Cedar 138kV | Dobbin - Tubular 138kV | 213 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 214 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 216 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 221 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 221 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 223 |
| Cedar - Cincinnati 138kV | Navasota - Tubular 138kV | 224 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 225 |
| Cedar - Cincinnati 138kV | Dobbin - Tubular 138kV | 225 |
| Pee Dee - Bishop 138kV | Base Case | 233 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 237 |
| Bishop - Cedar 138kV | Base Case | 238 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 243 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 245 |
| Cedar - Cincinnati 138kV | Base Case | 250 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 251 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 253 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 253 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 253 |
| Cincinnati - Walker 138kV | Navasota - Tubular 138kV | 257 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 258 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 258 |
| Cincinnati - Walker 138kV | Dobbin - Tubular 138kV | 259 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 259 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 260 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 260 |
| Rivtrin - Walker 138kV | Navasota - Tubular 138kV | 264 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 266 |
| Rivtrin - Walker 138kV | Dobbin - Tubular 138kV | 266 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 267 |

AEPW

| Limiting Element | Contingency Element | ATC |
|--|---|-----|
| 'MANSFLD4 138' TO BUS 'IPAPER 4 138' | Contingency of FlowGate 5029 DOLHILL7 345 TO SW SHV 7 345 | 0 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 190 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 196 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 200 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 201 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 203 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 206 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 206 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 206 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 209 |
| Pee Dee - Bishop 138kV | Navasota - Tubular 138kV | 209 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 210 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 210 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 210 |
| Pee Dee - Bishop 138kV | Dobbin - Tubular 138kV | 211 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 213 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 213 |
| Bishop - Cedar 138kV | Navasota - Tubular 138kV | 214 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 215 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 215 |
| Bishop - Cedar 138kV | Dobbin - Tubular 138kV | 215 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 219 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 222 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 222 |
| Cedar - Cincinnati 138kV | Navasota - Tubular 138kV | 226 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 226 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 227 |
| Cedar - Cincinnati 138kV | Dobbin - Tubular 138kV | 228 |
| Pee Dee - Bishop 138kV | Base Case | 235 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 238 |
| Bishop - Cedar 138kV | Base Case | 240 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 243 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 249 |
| Cedar - Cincinnati 138kV | Base Case | 253 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 254 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 255 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 255 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 257 |
| Cincinnati - Walker 138kV | Navasota - Tubular 138kV | 260 |
| Cincinnati - Walker 138kV | Dobbin - Tubular 138kV | 262 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 262 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 262 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 262 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 263 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 263 |
| Rivtrin - Walker 138kV | Navasota - Tubular 138kV | 267 |
| Rivtrin - Walker 138kV | Dobbin - Tubular 138kV | 269 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 269 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 270 |

AMRN

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 160 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 193 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 197 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 198 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 203 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 203 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 204 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 204 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 206 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Navasota - Tubular 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 208 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 208 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 208 |
| Pee Dee - Bishop 138kV | Dobbin - Tubular 138kV | 209 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 210 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 210 |
| Bishop - Cedar 138kV | Navasota - Tubular 138kV | 211 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 212 |
| Bishop - Cedar 138kV | Dobbin - Tubular 138kV | 213 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 214 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 216 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 220 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 220 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 223 |
| Cedar - Cincinnati 138kV | Navasota - Tubular 138kV | 223 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 225 |
| Cedar - Cincinnati 138kV | Dobbin - Tubular 138kV | 225 |
| Pee Dee - Bishop 138kV | Base Case | 233 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 237 |
| Bishop - Cedar 138kV | Base Case | 238 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 243 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 245 |
| Cedar - Cincinnati 138kV | Base Case | 250 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 250 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 253 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 253 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 253 |
| Cincinnati - Walker 138kV | Navasota - Tubular 138kV | 257 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 258 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 258 |
| Cincinnati - Walker 138kV | Dobbin - Tubular 138kV | 258 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 259 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 260 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 260 |
| Rivtrin - Walker 138kV | Navasota - Tubular 138kV | 264 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 266 |
| Rivtrin - Walker 138kV | Dobbin - Tubular 138kV | 266 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 266 |

CLECO

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Greenwood - Terrebone 115kV | Webre - Wells 500kV | 0 |
| North Crowley - Scott1 138kV | Bonin - Labbe 230kV (LAFA) | 0 |
| North Crowley - Scott1 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 0 |
| Judice - Scott1 138kV | Flander - Hopkins 138kV (CLECO/LAFA) | 0 |
| North Crowley - Scott1 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 0 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 146 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 191 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 196 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 197 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 201 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 203 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 204 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 204 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 204 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 206 |
| Pee Dee - Bishop 138kV | Navasota - Tubular 138kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 207 |
| Pee Dee - Bishop 138kV | Dobbin - Tubular 138kV | 207 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 208 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 208 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 209 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 209 |
| Bishop - Cedar 138kV | Navasota - Tubular 138kV | 210 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 211 |
| Bishop - Cedar 138kV | Dobbin - Tubular 138kV | 212 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 214 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 214 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 220 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 220 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 221 |
| Cedar - Cincinnati 138kV | Navasota - Tubular 138kV | 222 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 224 |
| Cedar - Cincinnati 138kV | Dobbin - Tubular 138kV | 224 |
| Pee Dee - Bishop 138kV | Base Case | 232 |
| Bishop - Cedar 138kV | Base Case | 237 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 237 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 242 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 243 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 249 |
| Cedar - Cincinnati 138kV | Base Case | 249 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 251 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 252 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 252 |
| Cincinnati - Walker 138kV | Navasota - Tubular 138kV | 255 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 256 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 257 |
| Cincinnati - Walker 138kV | Dobbin - Tubular 138kV | 257 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 258 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 259 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 259 |
| Rivtrin - Walker 138kV | Navasota - Tubular 138kV | 263 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 264 |
| Rivtrin - Walker 138kV | Dobbin - Tubular 138kV | 265 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 265 |

EES

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 166 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 178 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 191 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 195 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 196 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 198 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 200 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 203 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 203 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 203 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 203 |
| Pee Dee - Bishop 138kV | Navasota - Tubular 138kV | 205 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 206 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 206 |
| Pee Dee - Bishop 138kV | Dobbin - Tubular 138kV | 207 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 207 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 207 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 208 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 208 |
| Bishop - Cedar 138kV | Navasota - Tubular 138kV | 209 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 211 |
| Bishop - Cedar 138kV | Dobbin - Tubular 138kV | 211 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 213 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 215 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 219 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 219 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 221 |
| Cedar - Cincinnati 138kV | Navasota - Tubular 138kV | 222 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 223 |
| Cedar - Cincinnati 138kV | Dobbin - Tubular 138kV | 223 |
| Pee Dee - Bishop 138kV | Base Case | 232 |
| Bishop - Cedar 138kV | Base Case | 236 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 238 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 243 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 243 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 248 |
| Cedar - Cincinnati 138kV | Base Case | 249 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 250 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 252 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 252 |
| Cincinnati - Walker 138kV | Navasota - Tubular 138kV | 255 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 255 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 256 |
| Cincinnati - Walker 138kV | Dobbin - Tubular 138kV | 257 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 257 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 259 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 259 |
| Rivtrin - Walker 138kV | Navasota - Tubular 138kV | 263 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 263 |
| Rivtrin - Walker 138kV | Dobbin - Tubular 138kV | 264 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 265 |

EMDE

| Limiting Element | Contingency Element | ATC |
|---|---|------------|
| Bull Shoals - Bull Shoals Dam SPA 161kV | St. Joe - Hilltop 161kV | 0 |
| Bull Shoals - Bull Shoals Dam SPA 161kV | Everton - St. Joe 161kV | 0 |
| Bull Shoals - Bull Shoals Dam SPA 161kV | Harrison East - Everton 161kV | 0 |
| Melborne - Sage 161kV | Dell - Independence SES 500kV | 0 |
| Melborne - Sage 161kV | ANO - Fort Smith 500kV | 0 |
| St. Joe - Hilltop 161kV | Bull Shoals - Bull Shoals Dam SPA 161kV | 0 |
| Melborne - Sage 161kV | Newport - Newport Industrial 161kV | 0 |
| St. Joe - Hilltop 161kV | Bull Shoals - Flippin 161kV | 0 |
| Melborne - Sage 161kV | Newport AB - Newport Industrial 161kV | 0 |
| Melborne - Sage 161kV | Cash - Newport AB 161kV | 0 |
| Melborne - Sage 161kV | Cash - Jonesboro 161kV | 0 |
| Melborne - Sage 161kV | Sansouci - Shelby (TVA) 500kV | 0 |
| Melborne - Sage 161kV | Sage - Guion 161kV | 0 |
| Melborne - Sage 161kV | Newport - Swifton 161kV | 0 |
| St. Joe - Hilltop 161kV | Flippin - Summit 161kV | 0 |
| Harrison East - Everton 161kV | Bull Shoals - Bull Shoals Dam SPA 161kV | 0 |
| Melborne - Sage 161kV | Mountain View - Guion 161kV | 0 |
| Harrison East - Everton 161kV | Bull Shoals - Flippin 161kV | 16 |
| Calico Rock - Melborne 161kV | Dell - Independence SES 500kV | 87 |
| Calico Rock - Melborne 161kV | ANO - Fort Smith 500kV | 93 |
| St. Joe - Hilltop 161kV | Harrison East - Summit 161kV | 94 |
| Harrison East - Everton 161kV | Flippin - Summit 161kV | 124 |
| Harrison East - Summit 161kV | St. Joe - Hilltop 161kV | 137 |
| Calico Rock - Norfolk 161kV | Dell - Independence SES 500kV | 158 |
| Calico Rock - Norfolk 161kV | ANO - Fort Smith 500kV | 158 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |

| Limiting Element | Contingency Element | ATC |
|--|--|------------|
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 168 |
| Harrison East - Summit 161kV | Everton - St. Joe 161kV | 170 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Calico Rock - Melborne 161kV | Newport - Newport Industrial 161kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Calico Rock - Melborne 161kV | Newport AB - Newport Industrial 161kV | 192 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 193 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 198 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 199 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 203 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 203 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 205 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 205 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 206 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Navasota - Tubular 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 208 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 209 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 209 |
| Pee Dee - Bishop 138kV | Dobbin - Tubular 138kV | 209 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 211 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 211 |
| Bishop - Cedar 138kV | Navasota - Tubular 138kV | 212 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 213 |
| Bishop - Cedar 138kV | Dobbin - Tubular 138kV | 213 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 214 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 216 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 221 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 221 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 224 |
| Cedar - Cincinnati 138kV | Navasota - Tubular 138kV | 224 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 225 |
| Calico Rock - Melborne 161kV | Cash - Newport AB 161kV | 225 |
| Cedar - Cincinnati 138kV | Dobbin - Tubular 138kV | 226 |
| Harrison East - Summit 161kV | Harrison East - Everton 161kV | 234 |
| Pee Dee - Bishop 138kV | Base Case | 234 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 237 |
| Bishop - Cedar 138kV | Base Case | 238 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 243 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 246 |

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|---------------------------------------|------------|
| Calico Rock - Norfolk 161kV | Newport - Newport Industrial 161kV | 247 |
| Cedar - Cincinnati 138kV | Base Case | 251 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 251 |
| Calico Rock - Melborne 161kV | Cash - Jonesboro 161kV | 253 |
| St. Joe - Hilltop 161kV | Eureka Springs - Osage Springs 161kV | 253 |
| Harrison East - Everton 161kV | Harrison East - Summit 161kV | 253 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 253 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 253 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 254 |
| Cincinnati - Walker 138kV | Navasota - Tubular 138kV | 257 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 259 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 259 |
| Pleasant Hill 500/161kV transformer | ANO 500/115kV transformer | 259 |
| Cincinnati - Walker 138kV | Dobbin - Tubular 138kV | 259 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 259 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 261 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 261 |
| Rivtrin - Walker 138kV | Navasota - Tubular 138kV | 265 |
| St. Joe - Hilltop 161kV | ANO - Fort Smith 500kV | 265 |
| Calico Rock - Norfolk 161kV | Newport AB - Newport Industrial 161kV | 266 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 266 |
| Rivtrin - Walker 138kV | Dobbin - Tubular 138kV | 267 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 267 |

Lafa

| Limiting Element | Contingency Element | ATC |
|------------------------------------|--|------------|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Semere - Scott2 138kV | Bonin - Labbe 230kV (Lafa) | 0 |
| Greenwood - Terrebone 115kV | Webre - Wells 500kV | 0 |
| Semere - Scott2 138kV | Wells (CLECO) - Point Mouton (Lafa) 230kV | 0 |
| North Crowley - Scott1 138kV | Bonin - Labbe 230kV (Lafa) | 0 |
| Semere - Scott2 138kV | Point Des Mouton (Lafa) - Labbe (Lafa) 230kV | 0 |
| Richard 500/138kV transformer 1 | Richard 500/138kV transformer 2 | 0 |
| Colonial Academy - Richard 138kV | Bonin - Labbe 230kV (Lafa) | 0 |
| Scott1 - Bonin 138kV | Bonin - Labbe 230kV (Lafa) | 0 |
| North Crowley - Scott1 138kV | Wells (CLECO) - Point Mouton (Lafa) 230kV | 0 |
| North Crowley - Scott1 138kV | Point Des Mouton (Lafa) - Labbe (Lafa) 230kV | 0 |
| Semere - Scott2 138kV | Habetz - Richard 138kV | 7 |
| Semere - Scott2 138kV | Greenwood - Terrebone 115kV | 9 |
| Scott1 - Bonin 138kV | Wells (CLECO) - Point Mouton (Lafa) 230kV | 14 |
| Colonial Academy - Richard 138kV | Wells (CLECO) - Point Mouton (Lafa) 230kV | 14 |
| Scott1 - Bonin 138kV | Point Des Mouton (Lafa) - Labbe (Lafa) 230kV | 46 |
| Colonial Academy - Richard 138kV | Point Des Mouton (Lafa) - Labbe (Lafa) 230kV | 47 |
| Acadia - Colonial Academy 138kV | Bonin - Labbe 230kV (Lafa) | 82 |

| Limiting Element | Contingency Element | ATC |
|--|--|------------|
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 85 |
| Habetz - Richard 138kV | Bonin - Labbe 230kV (LAFA) | 95 |
| Acadia - Colonial Academy 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 106 |
| Habetz - Richard 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 116 |
| Richard - Scott1 138kV | Bonin - Labbe 230kV (LAFA) | 121 |
| Semere - Scott2 138kV | Wells 500/230kV transformer | 130 |
| Richard - Scott1 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 130 |
| Acadia - Colonial Academy 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 139 |
| Habetz - Richard 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 152 |
| Richard - Scott1 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 162 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Semere - Scott2 138kV | Bonin - Cecelia 138kV | 173 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| North Crowley - Scott1 138kV | Habetz - Richard 138kV | 173 |
| Acadia GSU - Scanlan 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 175 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 190 |
| Acadia GSU - Scanlan 138kV | Bonin - Labbe 230kV (LAFA) | 194 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 194 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 195 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 199 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 202 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 202 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 202 |
| Champagne - East Opelousas 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 202 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 203 |
| Pee Dee - Bishop 138kV | Navasota - Tubular 138kV | 204 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 205 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 206 |
| Pee Dee - Bishop 138kV | Dobbin - Tubular 138kV | 206 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 206 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 206 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 207 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 207 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Acadia GSU - Scanlan 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 208 |
| Bishop - Cedar 138kV | Navasota - Tubular 138kV | 208 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 210 |
| Bishop - Cedar 138kV | Dobbin - Tubular 138kV | 210 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 212 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 214 |

| Limiting Element | Contingency Element | ATC |
|----------------------------------|--|------------|
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 218 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 218 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 219 |
| Cedar - Cincinnati 138kV | Navasota - Tubular 138kV | 220 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 222 |
| Cedar - Cincinnati 138kV | Dobbin - Tubular 138kV | 222 |
| Pee Dee - Bishop 138kV | Base Case | 231 |
| North Crowley - Richard 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 231 |
| Bishop - Cedar 138kV | Base Case | 235 |
| Colonial Academy - Richard 138kV | Habetz - Richard 138kV | 235 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 237 |
| Champagne - East Opelousas 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 238 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 241 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 242 |
| Champagne - East Opelousas 138kV | Bonin - Labbe 230kV (LAFA) | 243 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 246 |
| Cedar - Cincinnati 138kV | Base Case | 248 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 248 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 250 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 250 |
| Cincinnati - Walker 138kV | Navasota - Tubular 138kV | 253 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 253 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 254 |
| Cincinnati - Walker 138kV | Dobbin - Tubular 138kV | 255 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 256 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 258 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 258 |
| Rivtrin - Walker 138kV | Navasota - Tubular 138kV | 261 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 261 |
| North Crowley - Scott1 138kV | Wells 500/230kV transformer | 262 |
| Rivtrin - Walker 138kV | Dobbin - Tubular 138kV | 262 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 263 |
| North Crowley - Richard 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 263 |
| Colonial Academy - Richard 138kV | Greenwood - Terrebone 115kV | 265 |
| North Crowley - Scott1 138kV | Greenwood - Terrebone 115kV | 268 |

LAGN

| Limiting Element | Contingency Element | ATC |
|--|--|------------|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 146 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 189 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 194 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 195 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 199 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 202 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 202 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 202 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 203 |
| Pee Dee - Bishop 138kV | Navasota - Tubular 138kV | 204 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 205 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 206 |
| Pee Dee - Bishop 138kV | Dobbin - Tubular 138kV | 206 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 206 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 206 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 206 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Bishop - Cedar 138kV | Navasota - Tubular 138kV | 208 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 210 |
| Bishop - Cedar 138kV | Dobbin - Tubular 138kV | 210 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 212 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 214 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 218 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 218 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 219 |
| Cedar - Cincinnati 138kV | Navasota - Tubular 138kV | 220 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 222 |
| Cedar - Cincinnati 138kV | Dobbin - Tubular 138kV | 222 |
| Pee Dee - Bishop 138kV | Base Case | 231 |
| Bishop - Cedar 138kV | Base Case | 235 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 237 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 241 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 242 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 246 |
| Cedar - Cincinnati 138kV | Base Case | 248 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 248 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 250 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 250 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 253 |
| Cincinnati - Walker 138kV | Navasota - Tubular 138kV | 253 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 254 |
| Cincinnati - Walker 138kV | Dobbin - Tubular 138kV | 255 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 256 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 257 |

| Limiting Element | Contingency Element | ATC |
|------------------------|----------------------------------|-----|
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 257 |
| Rivtrin - Walker 138kV | Navasota - Tubular 138kV | 261 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 261 |
| Rivtrin - Walker 138kV | Dobbin - Tubular 138kV | 262 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 263 |

LEPA

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Semere - Scott2 138kV | Bonin - Labbe 230kV (LAFA) | 0 |
| Scott1 - Bonin 138kV | Bonin - Labbe 230kV (LAFA) | 0 |
| Semere - Scott2 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 0 |
| Bonin - Cecelia 138kV | Colonial Academy - Richard 138kV | 0 |
| Semere - Scott2 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 0 |
| North Crowley - Scott1 138kV | Bonin - Labbe 230kV (LAFA) | 0 |
| Bonin - Cecelia 138kV | Acadia - Colonial Academy 138kV | 0 |
| Bonin - Cecelia 138kV | Acadia GSU - Scanlan 138kV | 0 |
| North Crowley - Scott1 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 0 |
| Colonial Academy - Richard 138kV | Bonin - Labbe 230kV (LAFA) | 0 |
| Judice - Scott1 138kV | Flander - Hopkins 138kV (CLECO/LAFA) | 0 |
| North Crowley - Scott1 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 0 |
| Colonial Academy - Richard 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 43 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 104 |
| Raceland - Coteau 115kV | Terrebone 230/115kV transformer | 136 |
| Colonial Academy - Richard 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 141 |
| Acadia - Colonial Academy 138kV | Bonin - Labbe 230kV (LAFA) | 154 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Semere - Scott2 138kV | Bonin - Cecelia 138kV | 169 |
| Scott1 - Bonin 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 169 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Greenwood - Terrebone 115kV | Bayou Sales - WaxLake 138kV (CLECO) | 187 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 190 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 195 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 196 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 200 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 203 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 203 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 203 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 203 |

| Limiting Element | Contingency Element | ATC |
|---------------------------------|--------------------------------------|------------|
| Pee Dee - Bishop 138kV | Navasota - Tubular 138kV | 205 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 206 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 206 |
| Pee Dee - Bishop 138kV | Dobbin - Tubular 138kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 207 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 207 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 207 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 207 |
| Bishop - Cedar 138kV | Navasota - Tubular 138kV | 209 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 210 |
| Bishop - Cedar 138kV | Dobbin - Tubular 138kV | 211 |
| Bonin - Cecelia 138kV | Scanlan - Scott2 138kV | 211 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 213 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 214 |
| Vacherie - Waterford 230kV | Raceland - Waterford 230kV | 215 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 219 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 219 |
| Bonin - Cecelia 138kV | Semere - Scott2 138kV | 220 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 220 |
| Cedar - Cincinnati 138kV | Navasota - Tubular 138kV | 221 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 223 |
| Habetz - Richard 138kV | Bonin - Labbe 230kV (LAFA) | 223 |
| Cedar - Cincinnati 138kV | Dobbin - Tubular 138kV | 223 |
| Bonin - Cecelia 138kV | Flander - Hopkins 138kV (CLECO/LAFA) | 225 |
| Pee Dee - Bishop 138kV | Base Case | 232 |
| Bishop - Cedar 138kV | Base Case | 236 |
| Greenwood - Terrebone 115kV | Bayou Sales - Teche 138kV (CLECO) | 236 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 237 |
| Chauvin - Valentine 115kV | Coteau - Houma 115kV | 238 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 242 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 242 |
| Judice - Scott1 138kV | Greenwood - Terrebone 115kV | 244 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 247 |
| Cedar - Cincinnati 138kV | Base Case | 248 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 249 |
| Terrebone 230/115kV transformer | Raceland - Coteau 115kV | 249 |
| Chauvin - Ashland 115kV | Coteau - Houma 115kV | 250 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 251 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 251 |
| Judice - Meaux 138kV | Flander - Hopkins 138kV (CLECO/LAFA) | 253 |
| Cincinnati - Walker 138kV | Navasota - Tubular 138kV | 254 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 254 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 255 |
| Cincinnati - Walker 138kV | Dobbin - Tubular 138kV | 256 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 256 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 258 |

| Limiting Element | Contingency Element | ATC |
|-----------------------------|--------------------------------------|-----|
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 258 |
| Moril - Cecelia 138kV | Flander - Hopkins 138kV (CLECO/LAFA) | 258 |
| Rivtrin - Walker 138kV | Navasota - Tubular 138kV | 261 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 262 |
| Rivtrin - Walker 138kV | Dobbin - Tubular 138kV | 263 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 264 |
| Greenwood - Terrebone 115kV | ELPTAP - Wax Lake 138kV (CLECO) | 269 |

OKGE

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 174 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 194 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 198 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 200 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 203 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 204 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 205 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 205 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 207 |
| Pee Dee - Bishop 138kV | Navasota - Tubular 138kV | 208 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 209 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 209 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 209 |
| Pee Dee - Bishop 138kV | Dobbin - Tubular 138kV | 210 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 211 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 211 |
| Bishop - Cedar 138kV | Navasota - Tubular 138kV | 212 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 213 |
| Bishop - Cedar 138kV | Dobbin - Tubular 138kV | 214 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 214 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 217 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 221 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 221 |

| Limiting Element | Contingency Element | ATC |
|--|----------------------------------|------------|
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 224 |
| Cedar - Cincinnati 138kV | Navasota - Tubular 138kV | 225 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 226 |
| Cedar - Cincinnati 138kV | Dobbin - Tubular 138kV | 226 |
| Pee Dee - Bishop 138kV | Base Case | 234 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 237 |
| Bishop - Cedar 138kV | Base Case | 239 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 243 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 247 |
| Cedar - Cincinnati 138kV | Base Case | 251 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 252 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 254 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 254 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 254 |
| Cincinnati - Walker 138kV | Navasota - Tubular 138kV | 258 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 259 |
| Cincinnati - Walker 138kV | Dobbin - Tubular 138kV | 260 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 260 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 260 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 261 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 261 |
| Russellville East - Russellville North 161kV | ANO - Fort Smith 500kV | 265 |
| Rivtrin - Walker 138kV | Navasota - Tubular 138kV | 266 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 267 |
| Rivtrin - Walker 138kV | Dobbin - Tubular 138kV | 267 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 268 |

SMEPA

| Limiting Element | Contingency Element | ATC |
|--|--|------------|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 131 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 191 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 196 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 197 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 201 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 203 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 203 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 203 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 204 |
| Pee Dee - Bishop 138kV | Navasota - Tubular 138kV | 206 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 207 |
| Pee Dee - Bishop 138kV | Dobbin - Tubular 138kV | 207 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 207 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 208 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 208 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 208 |
| Bishop - Cedar 138kV | Navasota - Tubular 138kV | 210 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 211 |
| Bishop - Cedar 138kV | Dobbin - Tubular 138kV | 211 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 214 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 214 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 219 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 219 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 221 |
| Cedar - Cincinnati 138kV | Navasota - Tubular 138kV | 222 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 224 |
| Cedar - Cincinnati 138kV | Dobbin - Tubular 138kV | 224 |
| Pee Dee - Bishop 138kV | Base Case | 232 |
| Bishop - Cedar 138kV | Base Case | 237 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 237 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 242 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 243 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 249 |
| Cedar - Cincinnati 138kV | Base Case | 249 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 251 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 252 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 252 |
| Cincinnati - Walker 138kV | Navasota - Tubular 138kV | 255 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 256 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 256 |
| Cincinnati - Walker 138kV | Dobbin - Tubular 138kV | 257 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 257 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 259 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 259 |
| Rivtrin - Walker 138kV | Navasota - Tubular 138kV | 263 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 263 |
| Rivtrin - Walker 138kV | Dobbin - Tubular 138kV | 264 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 265 |

SOCO

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 145 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 192 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 196 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 202 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 203 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 204 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 204 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 205 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 206 |
| Pee Dee - Bishop 138kV | Navasota - Tubular 138kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 207 |
| Pee Dee - Bishop 138kV | Dobbin - Tubular 138kV | 208 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 208 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 208 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 209 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 209 |
| Bishop - Cedar 138kV | Navasota - Tubular 138kV | 210 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 212 |
| Bishop - Cedar 138kV | Dobbin - Tubular 138kV | 212 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 214 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 215 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 220 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 220 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 222 |
| Cedar - Cincinnati 138kV | Navasota - Tubular 138kV | 223 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 224 |
| Cedar - Cincinnati 138kV | Dobbin - Tubular 138kV | 224 |
| Pee Dee - Bishop 138kV | Base Case | 233 |
| Bishop - Cedar 138kV | Base Case | 237 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 237 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 242 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 244 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 249 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Cedar - Cincinnati 138kV | Base Case | 250 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 252 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 252 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 252 |
| Cincinnati - Walker 138kV | Navasota - Tubular 138kV | 256 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 257 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 257 |
| Cincinnati - Walker 138kV | Dobbin - Tubular 138kV | 258 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 258 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 259 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 259 |
| Rivtrin - Walker 138kV | Navasota - Tubular 138kV | 263 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 264 |
| Rivtrin - Walker 138kV | Dobbin - Tubular 138kV | 265 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 266 |

SPA

| Limiting Element | Contingency Element | ATC |
|--|--|------------|
| Melborne - Sage 161kV | Dell - Independence SES 500kV | 0 |
| Melborne - Sage 161kV | ANO - Fort Smith 500kV | 0 |
| Melborne - Sage 161kV | Newport - Newport Industrial 161kV | 0 |
| Melborne - Sage 161kV | Newport AB - Newport Industrial 161kV | 0 |
| Melborne - Sage 161kV | Cash - Newport AB 161kV | 0 |
| Melborne - Sage 161kV | Cash - Jonesboro 161kV | 0 |
| Melborne - Sage 161kV | Sansouci - Shelby (TVA) 500kV | 0 |
| Melborne - Sage 161kV | Sage - Guion 161kV | 0 |
| Melborne - Sage 161kV | Newport - Swifton 161kV | 0 |
| Melborne - Sage 161kV | Mountain View - Guion 161kV | 0 |
| Calico Rock - Melborne 161kV | Dell - Independence SES 500kV | 72 |
| Calico Rock - Melborne 161kV | ANO - Fort Smith 500kV | 79 |
| Lake Conway - Mayflower 115kV | Pleasant Hill 500/161kV transformer | 116 |
| Calico Rock - Norfolk 161kV | Dell - Independence SES 500kV | 130 |
| Pleasant Hill 500/161kV transformer | ANO 500/115kV transformer | 133 |
| Calico Rock - Norfolk 161kV | ANO - Fort Smith 500kV | 135 |
| Calico Rock - Melborne 161kV | Newport - Newport Industrial 161kV | 136 |
| Calico Rock - Melborne 161kV | Newport AB - Newport Industrial 161kV | 152 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 168 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Calico Rock - Melborne 161kV | Cash - Newport AB 161kV | 178 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 193 |

| Limiting Element | Contingency Element | ATC |
|--|---------------------------------------|------------|
| Calico Rock - Norfolk 161kV | Newport - Newport Industrial 161kV | 194 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 198 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 199 |
| Calico Rock - Melborne 161kV | Cash - Jonesboro 161kV | 199 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 203 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 203 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 205 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 205 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 206 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Navasota - Tubular 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 208 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 209 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 209 |
| Pee Dee - Bishop 138kV | Dobbin - Tubular 138kV | 209 |
| Calico Rock - Norfolk 161kV | Newport AB - Newport Industrial 161kV | 210 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 211 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 211 |
| Bishop - Cedar 138kV | Navasota - Tubular 138kV | 212 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 213 |
| Bishop - Cedar 138kV | Dobbin - Tubular 138kV | 213 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 214 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 216 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 221 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 221 |
| Russellville East - Russellville North 161kV | ANO - Fort Smith 500kV | 223 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 223 |
| Cedar - Cincinnati 138kV | Navasota - Tubular 138kV | 224 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 225 |
| Cedar - Cincinnati 138kV | Dobbin - Tubular 138kV | 226 |
| Calico Rock - Melborne 161kV | Newport - Swifton 161kV | 226 |
| Calico Rock - Melborne 161kV | Sansouci - Shelby (TVA) 500kV | 228 |
| Calico Rock - Melborne 161kV | Sage - Guion 161kV | 233 |
| Pee Dee - Bishop 138kV | Base Case | 234 |
| Calico Rock - Norfolk 161kV | Cash - Newport AB 161kV | 236 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 237 |
| Bishop - Cedar 138kV | Base Case | 238 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 243 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 246 |
| Calico Rock - Melborne 161kV | Mountain View - Guion 161kV | 248 |
| Cedar - Cincinnati 138kV | Base Case | 251 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 251 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 253 |

| Limiting Element | Contingency Element | ATC |
|-----------------------------|----------------------------------|-----|
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 253 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 253 |
| Calico Rock - Norfolk 161kV | Cash - Jonesboro 161kV | 257 |
| Cincinnati - Walker 138kV | Navasota - Tubular 138kV | 257 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 258 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 259 |
| Cincinnati - Walker 138kV | Dobbin - Tubular 138kV | 259 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 259 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 261 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 261 |
| Rivtrin - Walker 138kV | Navasota - Tubular 138kV | 265 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 266 |
| Rivtrin - Walker 138kV | Dobbin - Tubular 138kV | 266 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 267 |

TVA

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Lake Charles Bulk - Roy S Nelson 138kV ckt 1 | Lake Charles Bulk - Roy S Nelson 138kV ckt 2 | 152 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 192 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 197 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 198 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 202 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 203 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 204 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 204 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 205 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 206 |
| Pee Dee - Bishop 138kV | Navasota - Tubular 138kV | 206 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 208 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 208 |
| Pee Dee - Bishop 138kV | Dobbin - Tubular 138kV | 208 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 208 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 209 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 209 |
| Bishop - Cedar 138kV | Navasota - Tubular 138kV | 211 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 212 |
| Bishop - Cedar 138kV | Dobbin - Tubular 138kV | 212 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 214 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 215 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 220 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 220 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 222 |
| Cedar - Cincinnati 138kV | Navasota - Tubular 138kV | 223 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 224 |
| Cedar - Cincinnati 138kV | Dobbin - Tubular 138kV | 225 |
| Pee Dee - Bishop 138kV | Base Case | 233 |
| Bishop - Cedar 138kV | Base Case | 237 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 237 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 242 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 244 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 250 |
| Cedar - Cincinnati 138kV | Base Case | 250 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 252 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 252 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 252 |
| Cincinnati - Walker 138kV | Navasota - Tubular 138kV | 256 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 257 |
| Rivtrin - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 257 |
| Cincinnati - Walker 138kV | Dobbin - Tubular 138kV | 258 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 258 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 260 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 260 |
| Rivtrin - Walker 138kV | Navasota - Tubular 138kV | 264 |
| Rivtrin - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 265 |
| Rivtrin - Walker 138kV | Dobbin - Tubular 138kV | 265 |
| Rivtrin - Walker 138kV | Grimes - Walden 138kV | 266 |

APPENDIX A-F: DETAILS OF SCENARIO 4

2012

AECI

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|----------------------------------|-----|
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 118 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 215 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 219 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 219 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 220 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 220 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 220 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 224 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 225 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 225 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 225 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 228 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 229 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 230 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 232 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 237 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 240 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 242 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 242 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Pee Dee - Bishop 138kV | Base Case | 245 |
| Bishop - Cedar 138kV | Base Case | 249 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 262 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 267 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 269 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 269 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 272 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 274 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 275 |

AEPW

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|----------------------------------|-----|
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 48 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 128 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 218 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 219 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 222 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 222 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 222 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 222 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 223 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 226 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 226 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 226 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 227 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 228 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 230 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 231 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 232 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 235 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 238 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 238 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 241 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 243 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 244 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 244 |
| Pee Dee - Bishop 138kV | Base Case | 247 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Bishop - Cedar 138kV | Base Case | 252 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 264 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 271 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 271 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 271 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |

AMRN

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|----------------------------------|-----|
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 117 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 214 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 219 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 219 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 220 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 220 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 220 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 223 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 224 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 225 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 225 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 228 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 229 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 229 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 232 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 237 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 240 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 242 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 242 |
| Pee Dee - Bishop 138kV | Base Case | 245 |
| Bishop - Cedar 138kV | Base Case | 249 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 262 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 267 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 268 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 268 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 272 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 274 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 274 |

CLECO

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|-------------------------------|-----|
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 113 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 213 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 215 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 217 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 218 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 219 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 219 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 219 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 222 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 222 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 223 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 223 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 223 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 224 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 224 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 228 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 229 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 230 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 235 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 235 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 236 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 239 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 241 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 241 |
| Pee Dee - Bishop 138kV | Base Case | 244 |
| Bishop - Cedar 138kV | Base Case | 248 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 261 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 265 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 267 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 267 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 270 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 273 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 273 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 275 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 275 |

EES

| Limiting Element | Contingency Element | ATC |
|------------------------------------|---|-----|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Willow Glen 500/230kV Transformer | Coly 500/230kV transformer | 0 |
| Willow Glen 500/230kV Transformer | Willow Glen - Willow Glen 2 500/138kV transformer 1 | 0 |
| Addis - Big Cajun 1 230kV | Willow Glen - Webre 500kV | 0 |

| Limiting Element | Contingency Element | ATC |
|---|-----------------------------------|-----|
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 44 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 102 |
| Willow Glen - Willow Glen 2 500/138kV transformer 1 | Willow Glen 500/230kV Transformer | 142 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 166 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 198 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 212 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 216 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 217 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 218 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 218 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 219 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 222 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 222 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 223 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 223 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 224 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 224 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 226 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 228 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 228 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 229 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 235 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 235 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 235 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 239 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 240 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 241 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 241 |
| Pee Dee - Bishop 138kV | Base Case | 244 |
| Bishop - Cedar 138kV | Base Case | 248 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 251 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 256 |
| Cedar - Cincinnati 138kV | Base Case | 261 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 264 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 267 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 267 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 270 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 272 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 272 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 273 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 274 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 274 |

EMDE

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|----------------------------------|-----|
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 120 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 215 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 219 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 220 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 220 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 220 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 221 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 224 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 225 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 225 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 226 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 228 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 230 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 230 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 232 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 236 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 238 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 241 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 243 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 243 |
| Pee Dee - Bishop 138kV | Base Case | 245 |
| Bishop - Cedar 138kV | Base Case | 250 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 262 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 267 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 269 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 269 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 273 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 275 |

Lafa

| Limiting Element | Contingency Element | ATC |
|--|--|-----|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 46 |
| Webre 500/230kV transformer Supplemental Upgrade 9Mile | Webre - Wells 500kV | 48 |
| Scott1 - Bonin 138kV | Wells (CLECO) - Point Mouton (Lafa) 230kV | 61 |
| Scott1 - Bonin 138kV | Point Des Mouton (Lafa) - Labbe (Lafa) 230kV | 92 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 107 |
| Semere - Scott2 138kV | Wells (CLECO) - Point Mouton (Lafa) 230kV | 154 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Semere - Scott2 138kV | Point Des Mouton (Lafa) - Labbe (Lafa) 230kV | 185 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 211 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 215 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 215 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 216 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 218 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 218 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 218 |

| Limiting Element | Contingency Element | ATC |
|------------------------------|--|------------|
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 221 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 221 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 222 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 222 |
| North Crowley - Scott1 138kV | Wells (CLECO) - Point Mouton (LAFA) 230kV | 222 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 223 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 223 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 225 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 227 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 227 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 228 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 233 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 234 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 234 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 237 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 240 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 240 |
| Pee Dee - Bishop 138kV | Base Case | 243 |
| Bishop - Cedar 138kV | Base Case | 247 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| North Crowley - Scott1 138kV | Point Des Mouton (LAFA) - Labbe (LAFA) 230kV | 252 |
| Semere - Scott2 138kV | Richard 500/230kV transformer | 255 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Semere - Scott2 138kV | Richard - Sellers Road 230kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 259 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 262 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 266 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 266 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 268 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 270 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 271 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 273 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 273 |
| Cincinnati - Walker 138kV | Hartburg - Cottonwood2 500kV | 274 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 274 |

LAGN

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|---|-----|
| Willow Glen 500/230kV Transformer | Coly 500/230kV transformer | 0 |
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Willow Glen 500/230kV Transformer | Willow Glen - Willow Glen 2 500/138kV transformer 1 | 0 |
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 46 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 108 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 211 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 215 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 215 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 216 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 218 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 218 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 218 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 221 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 221 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 222 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 222 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 223 |
| Pee Dee - Bishop 138kV | Huntsville - LINE 558 TAP 138 kV | 223 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 225 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 227 |
| Bishop - Cedar 138kV | Huntsville - LINE 558 TAP 138 kV | 228 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 228 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 233 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 233 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 234 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 237 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 240 |
| Cedar - Cincinnati 138kV | Huntsville - LINE 558 TAP 138 kV | 240 |
| Pee Dee - Bishop 138kV | Base Case | 243 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Bishop - Cedar 138kV | Base Case | 247 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 259 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 262 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 266 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 266 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 267 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 270 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 271 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 273 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 273 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 274 |
| Cincinnati - Walker 138kV | Huntsville - LINE 558 TAP 138 kV | 275 |

LEPA

| Limiting Element | Contingency Element | ATC |
|--|---|-----|
| Addis - Big Cajun 1 230kV | Enjay - Fancy 230kV | 0 |
| Addis - Big Cajun 1 230kV | Enjay - Jaguar 230kV | 0 |
| Addis - Big Cajun 1 230kV | Jaguar - Tap Point Esso 230kV | 0 |
| Addis - Big Cajun 1 230kV | Coly - McKnight 500kV | 0 |
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Willow Glen 500/230kV Transformer | Coly 500/230kV transformer | 0 |
| Addis - Big Cajun 1 230kV | Willow Glen 500/230kV Transformer | 0 |
| Willow Glen 500/230kV Transformer | Willow Glen - Willow Glen 2 500/138kV transformer 1 | 0 |
| Addis - Big Cajun 1 230kV | Willow Glen - Webre 500kV | 0 |
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Greenwood - Terrebone 115kV Supplemental Upgrade SunEnergy | Bayou Sales - WaxLake 138kV (CLECO) | 35 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 46 |
| Chauvin - Valentine 115kV | Coteau - Houma 115kV | 72 |
| Greenwood - Terrebone 115kV Supplemental Upgrade SunEnergy | Bayou Sales - Teche 138kV (CLECO) | 82 |
| Chauvin - Ashland 115kV | Coteau - Houma 115kV | 84 |
| Raceland - Coteau 115kV | Terrebone 230/115kV transformer | 87 |
| Willow Glen - Willow Glen 2 500/138kV transformer 1 | Willow Glen 500/230kV Transformer | 101 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 109 |
| Greenwood - Terrebone 115kV Supplemental Upgrade SunEnergy | ELPTAP - Wax Lake 138kV (CLECO) | 119 |
| Conway - Wyandotte 138kV | Addis - Wilbert 138kV | 160 |
| Ashland - Houma 115kV | Coteau - Houma 115kV | 160 |
| Geismar - Wyandotte 138kV | Addis - Wilbert 138kV | 161 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |

| Limiting Element | Contingency Element | ATC |
|--|-------------------------------------|------------|
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Coteau - Houma 115kV | Chauvin - Valentine 115kV | 172 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Greenwood - Terrebone 115kV Supplemental Upgrade SunEnergy | Bayou Vista - ELPTAP 138kV (CLECO) | 179 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Greenwood - Humphrey 115kV | Bayou Sales - WaxLake 138kV (CLECO) | 181 |
| Terrebone 230/115kV transformer | Bayou Sales - WaxLake 138kV (CLECO) | 184 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Coteau - Houma 115kV | Chauvin - Ashland 115kV | 200 |
| Gibson - Humphrey 115kV | Bayou Sales - WaxLake 138kV (CLECO) | 201 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Terrebone 230/115kV transformer | Bayou Sales - Teche 138kV (CLECO) | 203 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 212 |
| Raceland - Coteau 115kV | Terrebone - Coteau 115kV | 212 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 215 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 216 |
| Houma - City of Houma 115kV | Cash - Jonesboro 161kV | 216 |
| Houma - City of Houma 115kV | Oak Grove - T300/331 138kV | 216 |
| Houma - City of Houma 115kV | Oak Ridge - Delhi 115kV | 216 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 217 |
| Terrebone 230/115kV transformer | ELPTAP - Wax Lake 138kV (CLECO) | 218 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 218 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 218 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 218 |
| Terrebone 230/115kV transformer | Raceland - Coteau 115kV | 219 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 221 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 221 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 222 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 222 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 223 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 223 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 225 |
| Willow Glen 500/230kV Transformer | Jaguar - Tap Point Esso 230kV | 226 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 228 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 228 |
| Terrebone - Coteau 115kV | Raceland - Coteau 115kV | 228 |
| Greenwood - Humphrey 115kV | Bayou Sales - Teche 138kV (CLECO) | 228 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 229 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 234 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 234 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 234 |

| Limiting Element | Contingency Element | ATC |
|---|------------------------------------|------------|
| Houma - City of Houma 115kV | Base Case | 237 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 238 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 240 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 240 |
| Terrebone 230/115kV transformer | Bayou Vista - ELPTAP 138kV (CLECO) | 242 |
| Pee Dee - Bishop 138kV | Base Case | 243 |
| Coteau - Houma 115kV | Waterford - Valentine 230kV | 245 |
| Coteau - Houma 115kV | Valentine 230/115kV transformer | 245 |
| Bishop - Cedar 138kV | Base Case | 247 |
| Gibson - Humphrey 115kV | Bayou Sales - Teche 138kV (CLECO) | 248 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Willow Glen 500/230kV Transformer | Addis - Big Cajun 1 230kV | 258 |
| Cedar - Cincinnati 138kV | Base Case | 260 |
| Coteau - Houma 115kV | Ashland - Houma 115kV | 261 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 263 |
| Greenwood - Humphrey 115kV | ELPTAP - Wax Lake 138kV (CLECO) | 265 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 266 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 266 |
| Vacherie - Waterford 230kV Supplemental Upgrade SunEnergy | Raceland - Waterford 230kV | 267 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 268 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 271 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 272 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 273 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 273 |
| Cincinnati - Walker 138kV | Hartburg - Cottonwood2 500kV | 274 |
| Cincinnati - Walker 138kV | Walden - April 138kV | 275 |

OKGE

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|-------------------------------|------------|
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 122 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 216 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 219 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 220 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 221 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 221 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 222 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 225 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 225 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 225 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 226 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 226 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 226 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 229 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 230 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 230 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 233 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 237 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 237 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 242 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 243 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 243 |
| Pee Dee - Bishop 138kV | Base Case | 246 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Bishop - Cedar 138kV | Base Case | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 263 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 269 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 270 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 270 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 274 |

SMEPA

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|----------------------------------|-----|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 113 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 213 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 215 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 217 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 218 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 218 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 219 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 219 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 222 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 223 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 223 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 223 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 224 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 224 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 226 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 228 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 228 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 230 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 235 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 235 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 235 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 239 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 241 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 241 |
| Pee Dee - Bishop 138kV | Base Case | 244 |
| Bishop - Cedar 138kV | Base Case | 248 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|-----|
| Cedar - Cincinnati 138kV | Base Case | 261 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 265 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 267 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 267 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 270 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 272 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 273 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 274 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 274 |
| Cincinnati - Walker 138kV | Hartburg - Cottonwood2 500kV | 275 |

SOCO

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|----------------------------------|-----|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 115 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 214 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 218 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 218 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 219 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 219 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 219 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 223 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 223 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 223 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 223 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 224 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 225 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 227 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 229 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 229 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 231 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 235 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 235 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 236 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 240 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 241 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 242 |
| Pee Dee - Bishop 138kV | Base Case | 244 |
| Bishop - Cedar 138kV | Base Case | 249 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 261 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 265 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 268 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 268 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 271 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 273 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 273 |
| Rivtrin - Walker 138kV | College Station - Speedway 138kV | 275 |
| Rivtrin - Walker 138kV | Navasota - Speedway 138kV | 275 |

SPA

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|----------------------------------|------------|
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 119 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 215 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 219 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 219 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 220 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 220 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 221 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 224 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 225 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 225 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 225 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 228 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 230 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 230 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 232 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 238 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 241 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 242 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 243 |
| Pee Dee - Bishop 138kV | Base Case | 245 |
| Bishop - Cedar 138kV | Base Case | 250 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 262 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 267 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 269 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 269 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 273 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 275 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 275 |

TVA

| Limiting Element | Contingency Element | ATC |
|-------------------------------------|-------------------------------|------------|
| Baxter Wilson - Ray Braswell 500kV | Franklin - Grand Gulf 500kV | 0 |
| Caney Creek - Lewis Creek SES 138kV | Alden - Lewis Creek SES 138kV | 0 |
| Conair - Caney Creek 138kV | Alden - Lewis Creek SES 138kV | 47 |
| Lewis Creek SES - Sheawill 138kV | Cleveland - Jacinto 138kV | 116 |
| Pee Dee - Bishop 138kV | Bryan - Pee Dee 138kV | 165 |
| Bishop - Cedar 138kV | Bryan - Pee Dee 138kV | 168 |
| Bryan - Pee Dee 138kV | Pee Dee - Bishop 138kV | 170 |
| Bryan - Pee Dee 138kV | Bishop - Cedar 138kV | 173 |
| Cedar - Cincinnati 138kV | Bryan - Pee Dee 138kV | 176 |
| Bryan - Pee Dee 138kV | Cedar - Cincinnati 138kV | 181 |
| Cincinnati - Walker 138kV | Bryan - Pee Dee 138kV | 197 |

| Limiting Element | Contingency Element | ATC |
|---------------------------|----------------------------------|------------|
| Rivtrin - Walker 138kV | Bryan - Pee Dee 138kV | 202 |
| Bryan - Pee Dee 138kV | Cincinnati - Walker 138kV | 202 |
| Bryan - Pee Dee 138kV | Rivtrin - Walker 138kV | 207 |
| Pee Dee - Bishop 138kV | Grimes - Mt. Zion 138kV | 214 |
| Pee Dee - Bishop 138kV | College Station - Bryan 138kV | 216 |
| Bishop - Cedar 138kV | Grimes - Mt. Zion 138kV | 218 |
| Bishop - Cedar 138kV | College Station - Bryan 138kV | 218 |
| Pee Dee - Bishop 138kV | LINE 558 TAP - MT. Zion 138 kV | 219 |
| Pee Dee - Bishop 138kV | College Station - Speedway 138kV | 219 |
| Pee Dee - Bishop 138kV | Navasota - Speedway 138kV | 219 |
| Pee Dee - Bishop 138kV | Crockett - Grimes 345kV | 223 |
| Pee Dee - Bishop 138kV | Grimes - Walden 138kV | 223 |
| Bishop - Cedar 138kV | College Station - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | Navasota - Speedway 138kV | 224 |
| Bishop - Cedar 138kV | LINE 558 TAP - MT. Zion 138 kV | 224 |
| Pee Dee - Bishop 138kV | Goree - Lewis Creek SES 138kV | 225 |
| Pee Dee - Bishop 138kV | Hartburg - Cottonwood2 500kV | 225 |
| Bishop - Cedar 138kV | Crockett - Grimes 345kV | 227 |
| Cedar - Cincinnati 138kV | College Station - Bryan 138kV | 227 |
| Bishop - Cedar 138kV | Grimes - Walden 138kV | 227 |
| Bishop - Cedar 138kV | Goree - Lewis Creek SES 138kV | 229 |
| Bishop - Cedar 138kV | Hartburg - Cottonwood2 500kV | 229 |
| Cedar - Cincinnati 138kV | Grimes - Mt. Zion 138kV | 231 |
| Cedar - Cincinnati 138kV | College Station - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | Navasota - Speedway 138kV | 236 |
| Cedar - Cincinnati 138kV | LINE 558 TAP - MT. Zion 138 kV | 237 |
| Cedar - Cincinnati 138kV | Crockett - Grimes 345kV | 239 |
| Cedar - Cincinnati 138kV | Grimes - Walden 138kV | 240 |
| Cedar - Cincinnati 138kV | Hartburg - Cottonwood2 500kV | 242 |
| Cedar - Cincinnati 138kV | Goree - Lewis Creek SES 138kV | 242 |
| Pee Dee - Bishop 138kV | Base Case | 245 |
| Bishop - Cedar 138kV | Base Case | 249 |
| Cincinnati - Walker 138kV | College Station - Bryan 138kV | 250 |
| Rivtrin - Walker 138kV | College Station - Bryan 138kV | 255 |
| Cedar - Cincinnati 138kV | Base Case | 262 |
| Cincinnati - Walker 138kV | Grimes - Mt. Zion 138kV | 266 |
| Cincinnati - Walker 138kV | College Station - Speedway 138kV | 268 |
| Cincinnati - Walker 138kV | Navasota - Speedway 138kV | 268 |
| Cincinnati - Walker 138kV | Crockett - Grimes 345kV | 271 |
| Cincinnati - Walker 138kV | LINE 558 TAP - MT. Zion 138 kV | 271 |
| Rivtrin - Walker 138kV | Grimes - Mt. Zion 138kV | 274 |
| Cincinnati - Walker 138kV | Grimes - Walden 138kV | 274 |