



***Feasibility Study
PID 286
108MW Plant***

Prepared by:

***Southwest Power Pool
Independent Coordinator of Transmission
415 N. McKinley, Suite 140
Little Rock, AR 72205***

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Energy Resource Interconnection Service

1. Introduction

This Energy Resource Interconnection Service (ERIS) is based on the Customer's request for a 108MW interconnection on Entergy's transmission system located on the Pelahatchie – Carthage 115kV transmission line. The proposed commercial operation date of the project is January 1, 2017. The objective of this study is to assess the reliability impact of the new facility on the Entergy transmission 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 the plant is connected to Entergy's transmission system. If not, transmission improvements will be identified.

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

This ERIS Feasibility Study was based on information provided by the Customer and assumptions made by Entergy's Independent Coordinator of Transmission (ICT) planning group and 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.

It was determined that there are no Entergy Transmission System upgrades required for this ERIS request. The estimated cost of interconnection facilities is \$6 Million; which covers the cost of the construction of a new 115kV three element ring bus substation cut-in at the Customer's point of interconnection on Entergy's Pelahatchie - Carthage 115kV transmission line.

2. Short circuit Analysis/Breaker Rating Analysis

2.1 Model Information

The short circuit analysis was performed on the 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.

2.2 Short Circuit Analysis

The method used to determine if any short circuit problems would be caused by the addition of the PID 286 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 286 generator 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 286 generation. Any breakers identified to be upgraded through this comparison are mandatory upgrades.

2.3 Analysis Results

The results of the short circuit analysis indicated that the additional generation due to PID 286 generation caused no increase in short circuit current such that they exceeded the fault interrupting capability of the high voltage circuit breakers within the vicinity of the PID 286 plant **with and without priors**. Priors included are: 221, 231, 238, 240, 244, 247, 250, 256, 260, 266, and 268.

2.4 Problem Resolution

As a result of the short circuit analysis findings, no resolution was required.

3. Load Flow Analysis

3.1 Model Information

The load flow analysis was performed based on the projected 2017 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 2017 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 PID 286 generation interconnection point was modeled on the Pelahatchie – Carthage 115kV transmission line. These 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 the 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

The generator step-up transformers, generators, and interconnecting lines were modeled according to the information provided by the customer.

3.2 Load Flow Analysis

3.2.1 Load Flow Analysis:

The load flow analysis was performed as a DC analysis using PSS/E and PSS/MUST software by Power Technologies Incorporated (PTI). A Transmission Reliability Margin (TRM) value that effectively reduced line ratings by 5% was used in the model. 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. The details of each scenario list each limiting element, the contingency for the limiting element, and the Available Transfer Capacity (ATC). The ATC is equal to the FCITC.

3.2.2 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).
- Voltage greater than .95pu.

B) Under Contingencies

- The MVA flow through any facility should not exceed 95% Rate A.
- Voltage greater than .92pu.

3.3 Analysis Results

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

Table 3.3.1: Summary of Results for PID 286 – 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.	2017	87	-754	88	-726
AEPW	American Electric Power West	2017	-733	-744	-709	-642
AMRN	Ameren Transmission	2017	87	-709	88	-682
CLEC	CLECO	2017	87	-544	88	14
EAI	Entergy Arkansas	2017	-250	-361	88	14
EES	Entergy LA., TX., and N.O.	2017	87	-1632	88	-1682
EESLoad	Entergy System Load	2017	87	-2670	88	-2758
EMI	Entergy Mississippi	2017	88	7	89	15
EMDE	Empire District Electric Co	2017	87	-793	88	-763
LAFSA	Lafayette Utilities System	2017	-572	-2909	-505	-3118
LAGN	Louisiana Generating, LLC	2017	87	-2576	87	-2669
LEPA	Louisiana Energy & Power Authority	2017	-742	-4490	-610	-4611
OKGE	Oklahoma Gas & Electric Company	2017	-1273	-832	-1231	-801
SMEPA	South Mississippi Electric Power Assoc.	2017	-1930	-1661	-112	-1436
SOCO	Southern Company	2017	87	-744	88	-585
SPA	Southwest Power Administration	2017	87	-811	88	-781
TVA	Tennessee Valley Authority	2017	87	-670	88	-645

4. Facilities at the Point of Interconnection

The Customer's designated Point of Interconnection (POI) is a new 115kV substation that will be constructed and cut-in on Entergy's Pelahatchie - Carthage 115kV transmission line. The interconnection customer is responsible for constructing all facilities needed to deliver generation to the POI. The estimated cost for a 115kV three element ring bus configuration substation is \$6 Million. The cost is based on parametric estimating techniques for a "typical" site. The cost may change significantly based on specific project parameters that are not known at this time. Costs specific to this interconnection will be developed during the Facilities Study.

APPENDIX A: Prior Generation Interconnection and Transmission Service Requests in Study Models

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

PID	Substation	MW	In Service Date
PID 221	Wolfcreek 500kV	875	10/1/2010
PID 238	Lakeover 230kV	550	12/1/2009

Prior transmission service requests that were included in this study:

OASIS #	PSE	MW	Begin	End
74846159	AEPM	65	1/1/2015	1/1/2020
75206836	ETEC	125	1/1/2015	2/1/2020
75259845	SMEPA	2	1/1/2012	1/1/2040
75460486	NRG Power Marketing	20	4/1/2012	4/1/2037
75564309	ETEC	50	5/1/2014	5/1/2044
75821264	ETEC	75	1/1/2015	1/1/2020
75823926	Cargill Power Markets	98	12/1/2012	12/1/2017
75821393	NRG Power Marketing	600	1/1/2014	1/1/2024
75862786	FPLP (NextEra Energy)	100	1/1/2012	1/1/2032
76045343	Horizon Wind	100	7/1/2012	7/1/2017
SPP 75108838	Tenaska Power Services	6	8/1/2011	6/1/2014
SPP 75108845	Tenaska Power Services	44	8/1/2011	6/1/2014
SPP 75191922	AEP	70-73	8/1/2011	6/1/2014
SPP 75197442	AECC	170	8/1/2011	6/1/2014
76143038	FPLP (NextEra Energy)	100	1/1/2013	1/1/2033
76143046	FPLP (NextEra Energy)	100	1/1/2013	1/1/2033
76178017	Horizon Wind	100	7/1/2012	7/1/2017
76178031	Horizon Wind	100	7/1/2012	7/1/2017
76234876	Entergy Services (SPO)	1	6/1/2012	6/1/2042
76234879	Entergy Services (SPO)	194	6/1/2012	6/1/2042
76234889	Entergy Services (SPO)	256	1/1/2016	1/1/2043
76234897	Entergy Services (SPO)	35	1/1/2016	1/1/2043
76234904	Entergy Services (SPO)	1	6/1/2012	6/1/2042
76234916	Entergy Services (SPO)	140	6/1/2012	6/1/2042
76234922	Entergy Services (SPO)	1	5/1/2013	5/1/2042
76234951	Entergy Services (SPO)	5	5/1/2013	5/1/2042
76234980	Entergy Services (SPO)	1	6/1/2012	6/1/2042
76234993 76235000 76235003	Entergy Services (SPO)	475	1/1/2014	1/1/2043
76235101	NRG Power Marketing	450	1/1/2014	1/1/2024
76235158	NRG Power Marketing	650	1/1/2014	1/1/2024
76238089	Entergy Services (SPO)	20	1/1/2014	1/1/2043

APPENDIX B: ERIS Load Flow – Details of Scenario 1, 2, 3 and 4

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

Limiting Elements	Est. Cost	AECI	AEPW	AMRN	CLECO	EAI	EES	EESLd	EMDE	EMI	LAFa	LAGN	LEPA	OKGE	SMEPA	SOCO	SPA	TVA
Brookhaven - Mallalieu (MEPA) 115kV	Included in 2011 ICT Base Plan														X			
Carroll 230/138kV transformer (CLECO)	Other Ownership		X															
Champagne - Plaisance (CLECO) 138kV	Other Ownership										X		X					
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Other Ownership										X		X					
French Settlement - Sorrento 230kV	7,200,000														X			
International Paper - Mansfield 138kV (CLECO)	Other Ownership		X											X				
International Paper - Wallake 138kV (CLECO)	Other Ownership		X											X				
Mabelvale 500/115kV transformer 1	Included in 2011 ICT Base Plan					X												
Mabelvale 500/115kV transformer 2	Included in 2011 ICT Base Plan					X												
North Crowley - Scott1 138kV	14,280,000										X							
Pelahatchie - PID 286 115kV	6,720,000	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PHILADEL (TVA) - PEARL RIV T (TVA) 161kV	Other Ownership														X			
Philadelphia MS (TVA) - South Philadelphia 161kV	Other Ownership														X			
PID 286 - Scott (TVA) 155kV	6,720,000	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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

Limiting Elements	Est. Cost	AECI	AEPW	AMRN	CLECO	EAI	EES	EESSLd	EMDE	EMI	LAFA	LAGN	LEPA	OKGE	SMEPA	SOCO	SPA	TVA
Airline - Vignes 230kV - Supplemental Upgrade	Committed to by Others												X					
Brookhaven - Mallalieu (MEPA) 115kV	Included in 2011 ICT Base Plan														X			
Champagne - Plaisance (CLECO) 138kV	Other Ownership										X		X					
Cocodrie (CLECO) 230kV - Coughlin 138kV (CLECO)	Other Ownership										X		X					
Coly - Vignes 230kV - Supplemental Upgrade	Committed to by Others												X					
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Other Ownership										X		X					
Elton Road - Byram 115kV	Included in 2011 ICT Base Plan				X		X	X			X	X	X					
Elton Road - Southwest Jackson 115kV	Included in 2011 ICT Base Plan				X		X	X			X	X	X					
Florence - South Jackson 115kV - Supplemental Upgrade	Committed to by Others	X		X					X				X	X	X	X	X	X
French Settlement - Sorrento 230kV	7,200,000														X			
Grimes - Grimes 345/138kV transformer 1 & 2	24,668,806						X	X			X	X						
Hartburg - Inland Orange 230kV - Supplemental Upgrade	Committed to by Others		X				X	X										

Limiting Elements	Est. Cost	AECI	AEPW	AMRN	CLECO	EAI	EES	EESSLd	EMDE	EMI	LAFA	LAGN	LEPA	OKGE	SMEPA	SOCO	SPA	TVA
Helbig - McLewis 230kV	22,088,000		X				X	X										
Inland Orange - McLewis 230kV - Supplemental Upgrade	Committed to by Others		X				X	X										
Mabelvale 500/115kV transformer 1	Included in 2011 ICT Base Plan					X												
Mabelvale 500/115kV transformer 2	Included in 2011 ICT Base Plan					X												
Mallalieu (MEPA) - Norfield 115kV	Included in 2011 ICT Base Plan														X			
Morton - Forind (TVA) 115kV - Supplemental Upgrade	Committed to by Others														X			
Morton - Pelahatchie 115kV - Supplemental Upgrade	Committed to by Others	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PEARL RIV(TVA) - Leake MS (TVA) 161kV	Other Ownership														X			
Pelahatchie - PID 286 115kV	6,720,000	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PHILADEL (TVA) - PEARL RIV T (TVA) 161kV	Other Ownership														X			
Philadelphia MS (TVA) - South Philadelphia 161kV	Other Ownership														X			
PID 286 - Scott (TVA) 155kV	6,720,000	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Pleasant Hill 500/161kV transformer	Included in 2011 ICT Base Plan								X								X	
Rapidies (CLECO) - Rodemacher (CLECO) 230kV	Other Ownership										X							
Rex Brown-W - Rex Brown C 115kV ckt 1	275,000												X		X			

Limiting Elements	Est. Cost	AECI	AEPW	AMRN	CLECO	EAI	EES	EESLd	EMDE	EMI	LAFA	LAGN	LEPA	OKGE	SMEPA	SOCO	SPA	TVA
Vil Plat (CLECO) - West Fork (CLECO) 230kV	Other Ownership										X		X					
Willow Glen GL - PTPLEA 230kV	2,700,000												X					
Willow Glen GL - Willow Glen GL2 500/138kV transformer 1	Included in 2011 ICT Base Plan												X					
Willow Glen GL 500/230kV Transformer	Included in 2011 ICT Base Plan							X					X					

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

Limiting Elements	Est. Cost	AECI	AEPW	AMRN	CLECO	EAI	EES	EESSLd	EMDE	EMI	LAFa	LAGN	LEPA	OKGE	SMEPA	SOCO	SPA	TVA
Carroll 230/138kV transformer (CLECO)	Other Ownership		X															
Champagne - Plaisance (CLECO) 138kV	Other Ownership										X		X					
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Other Ownership										X		X					
International Paper - Mansfield 138kV (CLECO)	Other Ownership		X											X				
International Paper - Wallake 138kV (CLECO)	Other Ownership		X											X				
Pelahatchie - PID 286 115kV	6,720,000	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Philadelphia MS (TVA) - South Philadelphia 161kV	Other Ownership														X			
PID 286 - Scott (TVA) 155kV	6,720,000	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Richard - Acadia(EES) 138kV ckt 3	TBD										X							
Richard - Acadia(EES) 138kV ckt 4	TBD										X							

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

Limiting Elements	Est. Cost	AECI	AEPW	AMRN	CLECO	EAI	EESLd	EES	EMDE	EMI	LAFa	LAGN	LEPA	OKGE	SMEPA	SOCO	SPA	TVA
Brookhaven - Mallalieu (MEPA) 115kV	Included in 2011 ICT Base Plan														X			
Champagne - Plaisance (CLECO) 138kV	Other Ownership										X		X					
Cocodrie (CLECO) 230kV - Coughlin 138kV (CLECO)	Other Ownership										X		X					
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Other Ownership										X		X					
Florence - South Jackson 115kV - Supplemental Upgrade	Committed to by Others	X		X					X				X	X	X	X	X	X
Grimes - Grimes 345/138kV transformer 1 & 2	24,668,806						X	X			X	X						
Hartburg - Inland Orange 230kV - Supplemental Upgrade	Committed to by Others		X				X	X										
Inland - McLewis 230kV - Supplemental Upgrade	Committed to by Others						X	X										
Mallalieu (MEPA) - Norfield 115kV	Included in 2011 ICT Base Plan														X			
Morton - Forind (TVA) 115kV - Supplemental Upgrade	Committed to by Others														X			

Limiting Elements	Est. Cost	AECI	AEPW	AMRN	CLECO	EAI	EESSLd	EES	EMDE	EMI	LAFA	LAGN	LEPA	OKGE	SMEPA	SOCO	SPA	TVA
Morton - Pelahatchie 115kV - Supplemental Upgrade	Committed to by Others	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PEARL RIV(TVA) - Leake MS (TVA) 161kV	Other Ownership														X			
Pelahatchie - PID 286 115kV	6,720,000	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PHILADEL (TVA) - PEARL RIV T (TVA) 161kV	Other Ownership														X			
Philadelphia MS (TVA) - South Philadelphia 161kV	Other Ownership														X			
PID 286 - Scott (TVA) 155kV	6,720,000	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Rapides (CLECO) - Rodemacher (CLECO) 230kV	Other Ownership										X							
Rex Brown-W - Rex Brown C 115kV ckt 1	275,000												X		X			
Richard - Acadia(EES) 138kV ckt 3	TBD										X							
Richard - Acadia(EES) 138kV ckt 4	TBD										X							
Vil Plat (CLECO) - West Fork (CLECO) 230kV	Other Ownership										X		X					

APPENDIX C: DETAILS OF SCENARIO 1 – 2017

AECI

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	94
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

AEPW

Limiting Element	Contingency Element	ATC
International Paper - Mansfield 138kV (CLECO)	Dolet Hills (CLECO) - S.W. Shreevport 345kV (CLECO)	-733
Carroll 230/138kV transformer (CLECO)	Dolet Hills (CLECO) - S.W. Shreevport 345kV (CLECO)	-505
International Paper - Wallake 138kV (CLECO)	Dolet Hills (CLECO) - S.W. Shreevport 345kV (CLECO)	-284
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	93
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

AMRN

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	94
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

CLECO

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	92
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	92
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	95
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	97
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

EAI

Limiting Element	Contingency Element	ATC
Mabelvale 500/115kV transformer 1	Mabelvale 500/115kV transformer 2	-250
Mabelvale 500/115kV transformer 2	Mabelvale 500/115kV transformer 1	-223
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	93
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

EESSLoad

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	92
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	92
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Ray Braswell 500/230kV transformer ckt1 and ckt2 Test Contingency	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	97
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

EES

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	92
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	92
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	95
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	97
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

EMDE

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

EMI

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	88
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	94
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	94
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	95
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	95
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

Lafa

Limiting Element	Contingency Element	ATC
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-572
Champagne - Plaisance (CLECO) 138kV	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-375
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-368
Champagne - Plaisance (CLECO) 138kV	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-172
Coughlin (CLECO) - Plaisance 138kV (CLECO)	West Fork - Wells 230kV	-41
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	92
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	92
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	95
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	97
North Crowley - Scott1 138kV	Richard - Scott1 138kV	103
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

LAGN

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	91
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	92
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	95
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	97
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

LEPA

Limiting Element	Contingency Element	ATC
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-742
Champagne - Plaisance (CLECO) 138kV	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-487
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-478
Champagne - Plaisance (CLECO) 138kV	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-223
Coughlin (CLECO) - Plaisance	West Fork - Wells 230kV	-53

Limiting Element	Contingency Element	ATC
138kV (CLECO)		
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	91
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	92
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	95
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	97
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

OKGE

Limiting Element	Contingency Element	ATC
International Paper - Mansfield 138kV (CLECO)	Dolet Hills (CLECO) - S.W. Shreevport 345kV (CLECO)	-1273
International Paper - Wallake 138kV (CLECO)	Dolet Hills (CLECO) - S.W. Shreevport 345kV (CLECO)	-493
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	93
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

SMEPA

Limiting Element	Contingency Element	ATC
French Settlement - Sorrento 230kV	Bogalusa - Adams Creek 500/230kV transformer	-1930
French Settlement - Sorrento 230kV	Bogalusa - Franklin 500kV	-1930
Philadelphia MS (TVA) - South Philadelphia 161kV	Philadelphia MS (TVA) - Sebastopol (TVA) 161kV	-146
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	86
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	91
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	92
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	92
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	93
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	95
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	96
Brookhaven - Mallalieu (MEPA) 115kV	Bogalusa - Franklin 500kV	99
Brookhaven - Mallalieu (MEPA)	Bogalusa - Adams Creek 500/230kV transformer	99

Limiting Element	Contingency Element	ATC
115kV		
PHILADEL (TVA) - PEARL RIV T (TVA) 161kV	Philadelphia MS (TVA) - Sebastopol (TVA) 161kV	102
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

SOCO

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

SPA

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	93
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

TVA

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	94
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	94
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

APPENDIX D: DETAILS OF SCENARIO 2 – 2017

AECI

Limiting Element	Contingency Element	ATC
Florence - South Jackson 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	-754
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	6
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	36
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	50
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	65
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	79
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	81
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	83
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Attala - Kosciusko 115kV	86
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	89
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

AEPW

Limiting Element	Contingency Element	ATC
Hartburg - Inland Orange 230kV - Supplemental Upgrade	Cypress - Hartburg 500kV	-744
Helbig - McLewis 230kV	Cypress - Hartburg 500kV	-580
Inland Orange - McLewis 230kV - Supplemental Upgrade	Cypress - Hartburg 500kV	6
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	6
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	36
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	49
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	65
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	81
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	83
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Attala - Kosciusko 115kV	85
Morton – Pelahatchie 115kV –	Choctaw MS (TVA) – Clay (TVA) 500kV	91

Limiting Element	Contingency Element	ATC
Supplemental Upgrade		
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	104

AMRN

Limiting Element	Contingency Element	ATC
Florence - South Jackson 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	-709
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	6
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	36
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	50
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	65
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	79
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	81
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	83
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Attala - Kosciusko 115kV	86
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	88
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	104
Morton - Pelahatchie 115kV - Supplemental Upgrade	Newton (SOCO) - Hickory MS (SOCO) 115kV	107

CLECO

Limiting Element	Contingency Element	ATC
Elton Road - Southwest Jackson 115kV	Franklin - Ray Braswell 500kV	-544
Elton Road - Byram 115kV	Franklin - Ray Braswell 500kV	-36
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	6
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	36
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	49
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	65
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	84
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	93
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	103
Morton - Pelahatchie 115kV - Supplemental Upgrade	Newton (SOCO) - Hickory MS (SOCO) 115kV	106

EAI

Limiting Element	Contingency Element	ATC
Mabelvale 500/115kV transformer 1	Mabelvale 500/115kV transformer 2	-361
Mabelvale 500/115kV transformer 2	Mabelvale 500/115kV transformer 1	-340
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	6
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	37
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	50
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	65
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	80
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	81
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	83
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Attala - Kosciusko 115kV	86
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	92
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	104

EESSLoad

Limiting Element	Contingency Element	ATC
Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	-2670
Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	-2670
Willow Glen GL 500/230kV Transformer	Coly 500/230kV transformer	-2175
Willow Glen GL 500/230kV Transformer	Willow Glen GL - Willow Glen GL2 500/138kV transformer 1	-1476
Elton Road - Southwest Jackson 115kV	Franklin - Ray Braswell 500kV	-522
Hartburg - Inland Orange 230kV -	Cypress - Hartburg 500kV	-436

Limiting Element	Contingency Element	ATC
Supplemental Upgrade		
Willow Glen GL 500/230kV Transformer	Jaguar - Tap Point Esso 230kV	-362
Helbig - McLewis 230kV	Cypress - Hartburg 500kV	-349
Willow Glen GL 500/230kV Transformer	Fancy Point 500/230kV transformer 1	-88
Elton Road - Byram 115kV	Franklin - Ray Braswell 500kV	-35
Inland Orange - McLewis 230kV - Supplemental Upgrade	Cypress - Hartburg 500kV	4
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	6
Willow Glen GL 500/230kV Transformer	Fancy Point - Waterloo 230kV	30
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	37
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	49
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	65
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	94
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	104

EES

Limiting Element	Contingency Element	ATC
Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	-1632
Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	-1632
Elton Road - Southwest Jackson 115kV	Franklin - Ray Braswell 500kV	-532
Hartburg - Inland Orange 230kV - Supplemental Upgrade	Cypress - Hartburg 500kV	-233
Helbig - McLewis 230kV	Cypress - Hartburg 500kV	-182
Elton Road - Byram 115kV	Franklin - Ray Braswell 500kV	-36
Inland Orange - McLewis 230kV - Supplemental Upgrade	Cypress - Hartburg 500kV	2
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	6
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	36

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	49
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	65
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	78
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	84
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	93
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	103
Morton - Pelahatchie 115kV - Supplemental Upgrade	Newton (SOCO) - Hickory MS (SOCO) 115kV	106

EMDE

Limiting Element	Contingency Element	ATC
Florence - South Jackson 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	-793
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	6
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	36
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	50
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	65
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pleasant Hill 500/161kV transformer	ANO 500/161/22kV Autotransformer	76
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	81
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	83
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Attala - Kosciusko 115kV	86
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	89
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	104

EMI

Limiting Element	Contingency Element	ATC
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	7
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	38
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	50
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	66
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	69
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	81
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	83
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	83
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	86
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	86
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	86
Pelahatchie - PID 286 115kV	Attala - Kosciusko 115kV	86
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	102
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	105

LAF A

Limiting Element	Contingency Element	ATC
Cocodrie (CLECO) 230kV - Coughlin 138kV (CLECO)	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-2909
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-2678
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-2472
Champagne - Plaisance (CLECO) 138kV	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-2462
Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	-2459
Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	-2459
Cocodrie (CLECO) 230kV - Coughlin 138kV (CLECO)	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-2376
Champagne - Plaisance (CLECO) 138kV	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-2257
Coughlin (CLECO) - Plaisance 138kV (CLECO)	West Fork - Wells 230kV	-2143
Champagne - Plaisance (CLECO) 138kV	West Fork - Wells 230kV	-1928
Cocodrie (CLECO) 230kV - Coughlin 138kV (CLECO)	West Fork - Wells 230kV	-1521
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Richard - Scott1 138kV	-534
Rapidies (CLECO) - Rodemacher (CLECO) 230kV	Rodemacher (CLECO) - Sherwood (CLECO) 230kV	-512

Limiting Element	Contingency Element	ATC
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Franklin - McKnight 500kV	-500
Elton Road - Southwest Jackson 115kV	Franklin - Ray Braswell 500kV	-487
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Wells (CLECO) - Labbe (LAFA) 230kV	-427
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Roy S. Nelson - Richard 500kV	-345
Vil Plat (CLECO) - West Fork (CLECO) 230kV	Colfax (CLECO) - Rodemacher 230kV	-190
Champagne - Plaisance (CLECO) 138kV	Richard - Scott1 138kV	-188
Champagne - Plaisance (CLECO) 138kV	Franklin - McKnight 500kV	-176
Vil Plat (CLECO) - West Fork (CLECO) 230kV	Cocodrie (CLECO) 230kV - Coughlin 138kV (CLECO)	-138
Vil Plat (CLECO) - West Fork (CLECO) 230kV	Coughlin (CLECO) - Plaisance 138kV (CLECO)	-131
Champagne - Plaisance (CLECO) 138kV	Wells (CLECO) - Labbe (LAFA) 230kV	-97
Elton Road - Byram 115kV	Franklin - Ray Braswell 500kV	-32
Vil Plat (CLECO) - West Fork (CLECO) 230kV	Colfax (CLECO) - Montgomery 230kV	-24
Champagne - Plaisance (CLECO) 138kV	Roy S. Nelson - Richard 500kV	-2
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	6
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	36
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	49
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	65
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	78
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	78
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	84
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	93
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	103
Morton - Pelahatchie 115kV - Supplemental Upgrade	Newton (SOCO) - Hickory MS (SOCO) 115kV	106

LAGN

Limiting Element	Contingency Element	ATC
Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	-2576
Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	-2576
Elton Road - Southwest Jackson 115kV	Franklin - Ray Braswell 500kV	-486
Elton Road - Byram 115kV	Franklin - Ray Braswell 500kV	-32
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	6
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	36
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	49
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	65
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	78
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	78
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	84
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	94
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	103
Morton - Pelahatchie 115kV - Supplemental Upgrade	Newton (SOCO) - Hickory MS (SOCO) 115kV	106

LEPA

Limiting Element	Contingency Element	ATC
Cocodrie (CLECO) 230kV - Coughlin 138kV (CLECO)	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-4490
Cocodrie (CLECO) 230kV - Coughlin 138kV (CLECO)	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-3667
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-3472
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-3206
Champagne - Plaisance (CLECO) 138kV	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-3192
Champagne - Plaisance (CLECO) 138kV	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-2926
Coughlin (CLECO) - Plaisance 138kV (CLECO)	West Fork - Wells 230kV	-2779
Champagne - Plaisance (CLECO) 138kV	West Fork - Wells 230kV	-2500
Cocodrie (CLECO) 230kV - Coughlin	West Fork - Wells 230kV	-2348

Limiting Element	Contingency Element	ATC
138kV (CLECO)		
Rex Brown-W - Rex Brown C 115kV ckt 1	Lakeover - Ray Braswell 500kV	-1616
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Vatican - Scott1 138kV	-1483
Willow Glen GL 500/230kV Transformer	Coly 500/230kV transformer	-1399
Champagne - Plaisance (CLECO) 138kV	Vatican - Scott1 138kV	-1136
Elton Road - Southwest Jackson 115kV	Franklin - Grand Gulf 500kV	-983
Willow Glen GL 500/230kV Transformer	Willow Glen GL - Willow Glen GL2 500/138kV transformer 1	-950
Coly - Vignes 230kV - Supplemental Upgrade	A.A.C. Corp - St Gabriel 230kV	-466
Elton Road - Byram 115kV	Franklin - Grand Gulf 500kV	-452
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Wells (CLECO) - Labbe (LAFA) 230kV	-451
Elton Road - Southwest Jackson 115kV	Franklin - Ray Braswell 500kV	-445
Coly - Vignes 230kV - Supplemental Upgrade	A.A.C. Corp - Licar 230kV	-437
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Franklin - McKnight 500kV	-428
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Port Hudson - Thomas 138kV	-415
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Coly - McKnight 500kV	-413
Coly - Vignes 230kV - Supplemental Upgrade	Belle Helene - Licar 230kV	-337
Vil Plat (CLECO) - West Fork (CLECO) 230kV	Cocodrie (CLECO) 230kV - Coughlin 138kV (CLECO)	-317
Vil Plat (CLECO) - West Fork (CLECO) 230kV	Coughlin (CLECO) - Plaisance 138kV (CLECO)	-298
Willow Glen GL 500/230kV Transformer	Jaguar - Tap Point Esso 230kV	-249
Champagne - Plaisance (CLECO) 138kV	Franklin - McKnight 500kV	-151
Champagne - Plaisance (CLECO) 138kV	Wells (CLECO) - Labbe (LAFA) 230kV	-102
Champagne - Plaisance (CLECO) 138kV	Port Hudson - Thomas 138kV	-97
Willow Glen GL - Willow Glen GL2 500/138kV transformer 1	Willow Glen GL 500/230kV Transformer	-86
Champagne - Plaisance (CLECO) 138kV	Coly - McKnight 500kV	-69
Willow Glen GL 500/230kV Transformer	Fancy Point 500/230kV transformer 1	-49
Florence - South Jackson 115kV - Supplemental Upgrade	Franklin - McKnight 500kV	-35
Elton Road - Byram 115kV	Franklin - Ray Braswell 500kV	-30
Coly - Vignes 230kV - Supplemental Upgrade	Belle Helene - Woodstock 230kV	-16

Limiting Element	Contingency Element	ATC
Coly - Vignes 230kV - Supplemental Upgrade	Vulchlor - Woodstock 230kV	-15
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	6
Willow Glen GL 500/230kV Transformer	Fancy Point - Waterloo 230kV	17
Elton Road - Southwest Jackson 115kV	Morton - Pelahatchie 115kV	33
Coly - Vignes 230kV - Supplemental Upgrade	Bogalusa - Adams Creek 500/230kV transformer	36
Coly - Vignes 230kV - Supplemental Upgrade	Bogalusa - Franklin 500kV	36
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	36
Elton Road - Southwest Jackson 115kV	Morton - ForindT2 (TVA) 115kV	43
Elton Road - Southwest Jackson 115kV	FORIND (SOCO) - Forest Industrial2 (SOCO) 115kV	43
Elton Road - Southwest Jackson 115kV	FORIND (SOCO) - Forest Industrial1 (SOCO) 115kV	49
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	49
Willow Glen GL - PTPLEA 230kV	Willow Glen GL - Evergreen 230kV ckt 1	52
Elton Road - Southwest Jackson 115kV	Forest (SOCO) - Forest Industrial1 (SOCO) 115kV	56
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	65
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Elton Road - Southwest Jackson 115kV	Hoye Ave (SOCO) - Esco Tap (SOCO) 115kV	77
Elton Road - Southwest Jackson 115kV	Esco Tap (SOCO) - Forest (SOCO) 115kV	77
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	77
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	78
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	84
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	85
Airline - Vignes 230kV - Supplemental Upgrade	A.A.C. Corp - St Gabriel 230kV	86
Elton Road - Southwest Jackson 115kV	Newton (SOCO) - Hoye Ave (SOCO) 115kV	87
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	93
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	103
Morton - Pelahatchie 115kV - Supplemental Upgrade	Newton (SOCO) - Hickory MS (SOCO) 115kV	105

OKGE

Limiting Element	Contingency Element	ATC
Florence - South Jackson 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	-832
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	6
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	36
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	50
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	65
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	81
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	83
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Attala - Kosciusko 115kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	90
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	104
Morton - Pelahatchie 115kV - Supplemental Upgrade	Newton (SOCO) - Hickory MS (SOCO) 115kV	107

SMEPA

Limiting Element	Contingency Element	ATC
Rex Brown-W - Rex Brown C 115kV ckt 1	Lakeover - Ray Braswell 500kV	-1661
Brookhaven - Mallalieu (MEPA) 115kV	Bogalusa - Franklin 500kV	-995
Brookhaven - Mallalieu (MEPA) 115kV	Bogalusa - Adams Creek 500/230kV transformer	-995
Philadelphia MS (TVA) - South Philadelphia 161kV	Philadelphia MS (TVA) - Sebastopol (TVA) 161kV	-622
French Settlement - Sorrento 230kV	Bogalusa - Franklin 500kV	-577
French Settlement - Sorrento 230kV	Bogalusa - Adams Creek 500/230kV transformer	-577
Mallalieu (MEPA) - Norfield 115kV	Bogalusa - Adams Creek 500/230kV transformer	-470
Mallalieu (MEPA) - Norfield 115kV	Bogalusa - Franklin 500kV	-470
PHILADEL (TVA) - PEARL RIV T (TVA) 161kV	Philadelphia MS (TVA) - Sebastopol (TVA) 161kV	-374
Florence - South Jackson 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	-220
Florence - South Jackson 115kV - Supplemental Upgrade	Bogalusa - Franklin 500kV	-197
Florence - South Jackson 115kV - Supplemental Upgrade	Bogalusa - Adams Creek 500/230kV transformer	-197

Limiting Element	Contingency Element	ATC
Florence - South Jackson 115kV - Supplemental Upgrade	Sebastopol (TVA) - Five Points MS (TVA) 161kV	-44
Florence - South Jackson 115kV - Supplemental Upgrade	Franklin - Grand Gulf 500kV	-30
Florence - South Jackson 115kV - Supplemental Upgrade	Homewood (SMEPA) - Five Points MS (TVA) 161kV	-24
Florence - South Jackson 115kV - Supplemental Upgrade	South Jackson - Poplar Spring 115kV	-21
Florence - South Jackson 115kV - Supplemental Upgrade	Franklin - McKnight 500kV	-10
Florence - South Jackson 115kV - Supplemental Upgrade	Georgetown - Poplar Spring 115kV	-4
Florence - South Jackson 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	-4
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	5
PEARL RIV(TVA) - Leake MS (TVA) 161kV	Philadelphia MS (TVA) - Sebastopol (TVA) 161kV	21
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	32
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	49
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	64
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	64
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	67
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	78
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	81
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	81
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	84
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	84
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	84
Pelahatchie - PID 286 115kV	Attala - Kosciusko 115kV	84
Morton - Pelahatchie 115kV - Supplemental Upgrade	Newton (SOCO) - Hickory MS (SOCO) 115kV	87
Pelahatchie - PID 286 115kV	Base Case	102
Morton - Forind (TVA) 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	103
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

SOCO

Limiting Element	Contingency Element	ATC
Florence - South Jackson 115kV - Supplemental Upgrade	Bogalusa - Adams Creek 500/230kV transformer	-744
Florence - South Jackson 115kV - Supplemental Upgrade	Bogalusa - Franklin 500kV	-744
Florence - South Jackson 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	-558
Florence - South Jackson 115kV - Supplemental Upgrade	South Jackson - Poplar Spring 115kV	-80

Limiting Element	Contingency Element	ATC
Florence - South Jackson 115kV - Supplemental Upgrade	Franklin - McKnight 500kV	-36
Florence - South Jackson 115kV - Supplemental Upgrade	Georgetown - Poplar Spring 115kV	-14
Florence - South Jackson 115kV - Supplemental Upgrade	Georgetown - Silver Creek 115kV	5
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	6
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	34
Florence - South Jackson 115kV - Supplemental Upgrade	Franklin - Ray Braswell 500kV	35
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	50
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	65
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	67
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	77
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	81
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	83
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	84
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Attala - Kosciusko 115kV	85
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	104
Morton - Pelahatchie 115kV - Supplemental Upgrade	Newton (SOCO) - Hickory MS (SOCO) 115kV	104

SPA

Limiting Element	Contingency Element	ATC
Florence - South Jackson 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	-811
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	6
Pleasant Hill 500/161kV transformer	ANO 500/161/22kV Autotransformer	34
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	36
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	50
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	65
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	81
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	83
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Attala - Kosciusko 115kV	86
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	90
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	104
Morton - Pelahatchie 115kV - Supplemental Upgrade	Newton (SOCO) - Hickory MS (SOCO) 115kV	107

TVA

Limiting Element	Contingency Element	ATC
Florence - South Jackson 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	-670
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	6
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	36
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	50
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	65
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	79
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	81
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	83
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Attala - Kosciusko 115kV	86
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	87
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	104
Morton - Pelahatchie 115kV - Supplemental Upgrade	Newton (SOCO) - Hickory MS (SOCO) 115kV	106

APPENDIX E: DETAILS OF SCENARIO 3 – 2017

AECI

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	88
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	93
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

AEPW

Limiting Element	Contingency Element	ATC
International Paper - Mansfield 138kV (CLECO)	Dolet Hills (CLECO) - S.W. Shreevport 345kV (CLECO)	-709
Carroll 230/138kV transformer (CLECO)	Dolet Hills (CLECO) - S.W. Shreevport 345kV (CLECO)	-476
International Paper - Wallake 138kV (CLECO)	Dolet Hills (CLECO) - S.W. Shreevport 345kV (CLECO)	-261
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	88
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	92
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	97
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

AMRN

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	88
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	93
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

CLECO

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	88
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	91
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	92
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	95
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	97
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

EAI

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	88
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	92
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

EESSLoad

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	88
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	91
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	92
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	95
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	97
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

EES

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	88
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	91
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	92
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	93

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	95
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	97
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

EMDE

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	88
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	93
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	97
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

EMI

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	89
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	94
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	95
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

Lafa

Limiting Element	Contingency Element	ATC
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-505
Richard - Acadia(EES) 138kV ckt 3	Richard - Acadia(EES) 138kV ckt 4	-292
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-289
Champagne - Plaisance (CLECO) 138kV	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-287
Richard - Acadia(EES) 138kV ckt 4	Richard - Acadia(EES) 138kV ckt 3	-283
Champagne - Plaisance (CLECO) 138kV	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-70
Coughlin (CLECO) - Plaisance 138kV (CLECO)	West Fork - Wells 230kV	60
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	91
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	92
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	95
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	97
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

LAGN

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	91
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	92
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	95
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	97
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

LEPA

Limiting Element	Contingency Element	ATC
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-610
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-348
Champagne - Plaisance (CLECO) 138kV	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-346
Champagne - Plaisance (CLECO) 138kV	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-85
Coughlin (CLECO) - Plaisance 138kV (CLECO)	West Fork - Wells 230kV	72
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	87
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	91
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	92
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	95
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	97
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

OKGE

Limiting Element	Contingency Element	ATC
International Paper - Mansfield 138kV (CLECO)	Dolet Hills (CLECO) - S.W. Shreevport 345kV (CLECO)	-1231
International Paper - Wallake 138kV (CLECO)	Dolet Hills (CLECO) - S.W. Shreevport 345kV (CLECO)	-453
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	88
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	92
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	97
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

SMEPA

Limiting Element	Contingency Element	ATC
Philadelphia MS (TVA) - South Philadelphia 161kV	Philadelphia MS (TVA) - Sebastopol (TVA) 161kV	-112
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	86
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	91
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	91
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	92
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	92
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	93
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	94
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	95
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	96
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

SOCO

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	88
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	93
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	97
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

SPA

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	88
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	93
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	97
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

TVA

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	88
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	93
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	93
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	94
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	94
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	94
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	96
Pelahatchie - PID 286 115kV	Newton (SOCO) - Hickory MS (SOCO) 115kV	97
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

APPENDIX F: DETAILS OF SCENARIO 4 – 2017

AECI

Limiting Element	Contingency Element	ATC
Florence - South Jackson 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	-726
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	14
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	40
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	49
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	66
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	87
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	93
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

AEPW

Limiting Element	Contingency Element	ATC
Hartburg - Inland Orange 230kV - Supplemental Upgrade	Cypress - Hartburg 500kV	-642
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	14
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	40
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	49
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	66
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	84
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	87
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	95
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	103

AMRN

Limiting Element	Contingency Element	ATC
Florence - South Jackson 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	-682
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	14
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	40
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	49
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	66
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	86
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	92
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	104

CLECO

Limiting Element	Contingency Element	ATC
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	14
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	40
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	48
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	66
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	78
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	84
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	84
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	86
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	103

EAI

Limiting Element	Contingency Element	ATC
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	14
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	40
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	49
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	66
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	88
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	96
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	104

EESLoad

Limiting Element	Contingency Element	ATC
Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	-2758
Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	-2758
Hartburg - Inland Orange 230kV - Supplemental Upgrade	Cypress - Hartburg 500kV	-375
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	14
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	41
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	49
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	66
Inland - McLewis 230kV - Supplemental Upgrade	Cypress - Hartburg 500kV	66
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	78
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	84
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	84
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	86
Morton - Pelahatchie 115kV -	Choctaw MS (TVA) - Clay (TVA) 500kV	98

Limiting Element	Contingency Element	ATC
Supplemental Upgrade		
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	103

EES

Limiting Element	Contingency Element	ATC
Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	-1682
Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	-1682
Hartburg - Inland Orange 230kV - Supplemental Upgrade	Cypress - Hartburg 500kV	-200
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	14
Inland - McLewis 230kV - Supplemental Upgrade	Cypress - Hartburg 500kV	35
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	40
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	48
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	66
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	78
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	84
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	84
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	84
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	86
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	103

EMDE

Limiting Element	Contingency Element	ATC
Florence - South Jackson 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	-763
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	14
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	40
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	49
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	66
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	87
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	94
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	104

EMI

Limiting Element	Contingency Element	ATC
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	15
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	43
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	50
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	67
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	69
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	81
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	83
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	86
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	91
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	104
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	107

LAF A

Limiting Element	Contingency Element	ATC
Cocodrie (CLECO) 230kV - Coughlin 138kV (CLECO)	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-3118
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-2890
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-2672
Champagne - Plaisance (CLECO) 138kV	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-2650
Cocodrie (CLECO) 230kV - Coughlin 138kV (CLECO)	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-2560
Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	-2510
Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	-2510

Limiting Element	Contingency Element	ATC
Champagne - Plaisance (CLECO) 138kV	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-2432
Coughlin (CLECO) - Plaisance 138kV (CLECO)	West Fork - Wells 230kV	-2322
Champagne - Plaisance (CLECO) 138kV	West Fork - Wells 230kV	-2082
Cocodrie (CLECO) 230kV - Coughlin 138kV (CLECO)	West Fork - Wells 230kV	-1664
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Richard - Scott1 138kV	-612
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Franklin - McKnight 500kV	-584
Rapidies (CLECO) - Rodemacher (CLECO) 230kV	Rodemacher (CLECO) - Sherwood (CLECO) 230kV	-582
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Louisiana Station - Wilbert 138kV	-497
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Wells (CLECO) - Labbe (LAFA) 230kV	-493
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Point Des Mouton (LAFA) - Wells (CLECO) 230kV	-441
Richard - Acadia(EES) 138kV ckt 3	Richard - Acadia(EES) 138kV ckt 4	-285
Richard - Acadia(EES) 138kV ckt 4	Richard - Acadia(EES) 138kV ckt 3	-277
Champagne - Plaisance (CLECO) 138kV	Richard - Scott1 138kV	-267
Champagne - Plaisance (CLECO) 138kV	Franklin - McKnight 500kV	-265
Champagne - Plaisance (CLECO) 138kV	Wells (CLECO) - Labbe (LAFA) 230kV	-180
Vil Plat (CLECO) - West Fork (CLECO) 230kV	Colfax (CLECO) - Rodemacher 230kV	-179
Vil Plat (CLECO) - West Fork (CLECO) 230kV	Cocodrie (CLECO) 230kV - Coughlin 138kV (CLECO)	-156
Champagne - Plaisance (CLECO) 138kV	Louisiana Station - Wilbert 138kV	-149
Vil Plat (CLECO) - West Fork (CLECO) 230kV	Coughlin (CLECO) - Plaisance 138kV (CLECO)	-102
Champagne - Plaisance (CLECO) 138kV	Point Des Mouton (LAFA) - Wells (CLECO) 230kV	-101
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	14
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	40
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	48
Vil Plat (CLECO) - West Fork (CLECO) 230kV	Colfax (CLECO) - Montgomery 230kV	59
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	66
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	78
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	84
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	84
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	84
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	84
Morton - Pelahatchie 115kV -	Lost Gap (SOCO) - Hickory MS (SOCO)	86

Limiting Element	Contingency Element	ATC
Supplemental Upgrade	115kV	
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	103

LAGN

Limiting Element	Contingency Element	ATC
Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	-2669
Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	-2669
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	14
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	40
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	48
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	66
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	78
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	84
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	84
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	84
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	84
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	86
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	98
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	103

LEPA

Limiting Element	Contingency Element	ATC
Cocodrie (CLECO) 230kV - Coughlin 138kV (CLECO)	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-4611
Cocodrie (CLECO) 230kV - Coughlin 138kV (CLECO)	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-3786
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-3485
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-3222
Champagne - Plaisance (CLECO) 138kV	Cocodrie (CLECO) - Vil Plat (CLECO) 230kV	-3196
Champagne - Plaisance (CLECO) 138kV	Vil Plat (CLECO) - West Fork (CLECO) 230kV	-2933
Coughlin (CLECO) - Plaisance 138kV (CLECO)	West Fork - Wells 230kV	-2800
Champagne - Plaisance (CLECO) 138kV	West Fork - Wells 230kV	-2511

Limiting Element	Contingency Element	ATC
Cocodrie (CLECO) 230kV - Coughlin 138kV (CLECO)	West Fork - Wells 230kV	-2462
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Vatican - Scott1 138kV	-1412
Rex Brown-W - Rex Brown C 115kV ckt 1	Lakeover - Ray Braswell 500kV	-1392
Champagne - Plaisance (CLECO) 138kV	Vatican - Scott1 138kV	-1062
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Coughlin (CLECO) - Manuel (CLECO) 138kV	-867
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Eunice (CLECO) - Manuel 138kV (CLECO)	-671
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Richard - Scott1 138kV	-626
Coughlin (CLECO) - Plaisance 138kV (CLECO)	Franklin - Grand Gulf 500kV	-612
Champagne - Plaisance (CLECO) 138kV	Coughlin (CLECO) - Manuel (CLECO) 138kV	-514
Champagne - Plaisance (CLECO) 138kV	Eunice (CLECO) - Manuel 138kV (CLECO)	-318
Vil Plat (CLECO) - West Fork (CLECO) 230kV	Cocodrie (CLECO) 230kV - Coughlin 138kV (CLECO)	-313
Champagne - Plaisance (CLECO) 138kV	Richard - Scott1 138kV	-273
Champagne - Plaisance (CLECO) 138kV	Franklin - Grand Gulf 500kV	-260
Vil Plat (CLECO) - West Fork (CLECO) 230kV	Coughlin (CLECO) - Plaisance 138kV (CLECO)	-200
Florence - South Jackson 115kV - Supplemental Upgrade	Franklin - McKnight 500kV	-47
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	14
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	40
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	48
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	66
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	78
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	84
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	84
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	84
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	84
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	97
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	103

OKGE

Limiting Element	Contingency Element	ATC
Florence - South Jackson 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	-801
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	14
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	40
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	49
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	66
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	87
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	94
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	104

SMEPA

Limiting Element	Contingency Element	ATC
Rex Brown-W - Rex Brown C 115kV ckt 1	Lakeover - Ray Braswell 500kV	-1436
Philadelphia MS (TVA) - South Philadelphia 161kV	Philadelphia MS (TVA) - Sebastopol (TVA) 161kV	-591
Brookhaven - Mallalieu (MEPA) 115kV	Bogalusa - Franklin 500kV	-541
Brookhaven - Mallalieu (MEPA) 115kV	Bogalusa - Adams Creek 500/230kV transformer	-541
PHILADEL (TVA) - PEARL RIV T (TVA) 161kV	Philadelphia MS (TVA) - Sebastopol (TVA) 161kV	-343
Florence - South Jackson 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	-211
Florence - South Jackson 115kV - Supplemental Upgrade	Bogalusa - Adams Creek 500/230kV transformer	-155
Florence - South Jackson 115kV - Supplemental Upgrade	Bogalusa - Franklin 500kV	-155
Florence - South Jackson 115kV - Supplemental Upgrade	Sebastopol (TVA) - Five Points MS (TVA) 161kV	-31
Florence - South Jackson 115kV - Supplemental Upgrade	Franklin - Grand Gulf 500kV	-20
Florence - South Jackson 115kV - Supplemental Upgrade	Franklin - McKnight 500kV	-14
Florence - South Jackson 115kV - Supplemental Upgrade	Homewood (SMEPA) - Five Points MS (TVA) 161kV	-11
Florence - South Jackson 115kV - Supplemental Upgrade	South Jackson - Poplar Spring 115kV	-10

Limiting Element	Contingency Element	ATC
Supplemental Upgrade		
Mallalieu (MEPA) - Norfield 115kV	Bogalusa - Franklin 500kV	5
Mallalieu (MEPA) - Norfield 115kV	Bogalusa - Adams Creek 500/230kV transformer	5
Florence - South Jackson 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	7
Florence - South Jackson 115kV - Supplemental Upgrade	Georgetown - Poplar Spring 115kV	8
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	11
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	35
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	48
PEARL RIV(TVA) - Leake MS (TVA) 161kV	Philadelphia MS (TVA) - Sebastopol (TVA) 161kV	52
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	65
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	67
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	70
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	77
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	79
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	81
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	83
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	84
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	84
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	84
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Newton (SOCO) - Hickory MS (SOCO) 115kV	93
Pelahatchie - PID 286 115kV	Base Case	102
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Morton - Forind (TVA) 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	106

SOCO

Limiting Element	Contingency Element	ATC
Florence - South Jackson 115kV - Supplemental Upgrade	Bogalusa - Adams Creek 500/230kV transformer	-585
Florence - South Jackson 115kV - Supplemental Upgrade	Bogalusa - Franklin 500kV	-585
Florence - South Jackson 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	-537
Florence - South Jackson 115kV - Supplemental Upgrade	Franklin - McKnight 500kV	-48
Florence - South Jackson 115kV - Supplemental Upgrade	South Jackson - Poplar Spring 115kV	-36
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	14
Florence - South Jackson 115kV - Supplemental Upgrade	Georgetown - Poplar Spring 115kV	30

Limiting Element	Contingency Element	ATC
Supplemental Upgrade		
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	38
Florence - South Jackson 115kV - Supplemental Upgrade	Georgetown - Silver Creek 115kV	49
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	49
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	66
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	67
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Florence - South Jackson 115kV - Supplemental Upgrade	Franklin - Ray Braswell 500kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	84
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	84
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	88
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	103

SPA

Limiting Element	Contingency Element	ATC
Florence - South Jackson 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	-781
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	14
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	40
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	49
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	66
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	82
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	85
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	87
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	94
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103

Limiting Element	Contingency Element	ATC
Pelahatchie - PID 286 115kV	Base Case	104

TVA

Limiting Element	Contingency Element	ATC
Florence - South Jackson 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	-645
Morton - Pelahatchie 115kV - Supplemental Upgrade	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	14
Morton - Pelahatchie 115kV - Supplemental Upgrade	Kemper (SOCO) - Kemper1 (SOCO) 230kV	39
Pelahatchie - PID 286 115kV	Lakeover - McAdams 500kV	50
Pelahatchie - PID 286 115kV	Rankin 230/115kV transformer 1	66
Pelahatchie - PID 286 115kV	Choctaw MS (TVA) - Clay (TVA) 500kV	68
Pelahatchie - PID 286 115kV	McAdams - Pickens 230kV	79
Pelahatchie - PID 286 115kV	Kemper (SOCO) - Kemper1 (SOCO) 230kV	80
Pelahatchie - PID 286 115kV	Sweatt (SOCO) - Lost Gap (SOCO) 115kV	83
Pelahatchie - PID 286 115kV	Canton - Pickens 230kV	85
Pelahatchie - PID 286 115kV	Lake Castle - Lakeover 230kV	85
Pelahatchie - PID 286 115kV	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	85
Pelahatchie - PID 286 115kV	Lakeover - Ray Braswell 500kV	86
Morton - Pelahatchie 115kV - Supplemental Upgrade	Lost Gap (SOCO) - Hickory MS (SOCO) 115kV	86
Morton - Pelahatchie 115kV - Supplemental Upgrade	Choctaw MS (TVA) - Clay (TVA) 500kV	91
PID 286 - Scott (TVA) 155kV	Pelahatchie - PID 286 115kV	103
Pelahatchie - PID 286 115kV	Base Case	104