

SYSTEM IMPACT STUDY

OASIS Request Number: 74262360 and 74262367

ICTT-2010-057

Prepared for:

Cargill Power Markets

Prepared by:

Southwest Power Pool
Independent Coordinator of Transmission
415 N. McKinley, Suite140
Little Rock, AR 72205

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1. EXECUTIVE SUMMARY:

Cargill Power Markets has requested this study to determine the availability of 351MW of yearly point to point transmission service transfer across Entergy's transmission system from 7/1/2013 to 7/1/2033. The transfer is from CSWS to SOCO. This report identifies limitations to the requested transfer, if any, along with the requirements and planning estimates to remedy these limitations.

2. STUDY METHOD:

The study was performed on the latest available 2013 – 2019 winter, 2013 – 2019 summer peak seasonal models using PSS/E and MUST software by Power Technologies Incorporated (PTI).

2.1 Data Inputs

- Non-confirmed firm transmission reservations with OASIS numbers prior to this request, which are in the study mode, were also modeled.
- A TRM value that effectively reduced line ratings by 5% was used in the seasonal peak model and 0% TRM used in the monthly model.
- Generation in SOCO was scaled to accommodate the transfer.

2.2 Base Case Modifications

- Entergy load was scaled to reflect the latest load forecast.
- Entergy generation was dispatched according to the most recent economic dispatch data.
- Confirmed firm transmission reservations were modeled for the years 2013 – 2033.

Note: In real-time operations, the dynamic nature of these factors may affect the transfer capability as reported in this study.

2.3 Study Criteria

A separate analysis was performed based on the following two study criteria:

2.3.1 Study Criteria 1:

- With prior transaction currently in study mode
- With rollovers from existing long term transactions
- With existing confirmed transactions

2.3.2 Study Criteria 2:

- With rollovers from existing long term transactions
- With existing confirmed transactions

2.3.3 Study Criteria 3:

- With prior transaction currently in study mode
- With rollovers from existing long term transactions
- With existing confirmed transactions
- With approved construction plan upgrades

2.3.4 Study Criteria 4:

- With rollovers from existing long term transactions

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- With existing confirmed transactions
- With approved construction plan upgrades

2.3.5 Study Criteria 5:

- Customer selected Planning Redispatch option to be studied
- Planning Redispatch hours were calculated with prior transactions in study mode
- With rollovers from existing long term transactions
- With existing confirmed transactions

2.4 Dependencies

The Available Transfer Capacity (ATC) depends on the following:

- system load
- generation dispatch
- scheduled maintenance of equipment
- configuration of the interconnected system
- power flows in effect among the interconnected systems
- previously confirmed firm reservations on the interface

3. STUDY RESULTS:

TABLE 1 – Study Results

OASIS Request	Period	Cases Used	Amount (MW)	ATC Available	Rollover Rights Available	Planning Redispatch Available
74262360 74262367	7/1/2013 – 7/1/2033	2013 – 2019 summer peak 2013 – 2019 winter peak	351	NO	NO	NO

3.1 Criteria 1 Results:

Limitations to transfer are shown in Table 2 along with the remediation requirements.

TABLE 2 – Limitations to Transfer

Limiting Element	Required Upgrade/MW Impact	Upgrade Estimate
Grimes - Bentwater 138kV	Upgrade Transmission Line 38.19 miles	21,578,627
Bentwater - Walden 138kV		
Walden - April 138kV		
April - Lake Forest 138kV		
Lake Forrest - Woodhaven 138kV		
Bogalusa - Adams Creek 500/230kV transformer	Loblolly-Hammond Build 230kV New Line	Included in 2010 ICT Base Plan and Entergy's CP (ISD Summer 2012)
Grimes - Grimes 345/138kV transformer 1	Install 3 rd 345/138kV Auto @ Grimes	19,884,587
Grimes - Grimes 345/138kV transformer 2		
Grimes - Mt. Zion 138kV	Upgrade Transmission Line 19.2 miles	10,848,642

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Huntsville - LINE 558 TAP 138 kV	Upgrade Transmission Line 7.6 miles	4,294,254
LINE 558 TAP - MT. Zion 138 kV		
Lewisville - Patmos West 115kV	Sarepta Project	Included in 2010 ICT Base Plan and Entergy's CP (ISD Summer 2011)
Fulton - Patmos 115kV		
Ray Braswell - Baxter Wilson 500kV	Supplemental Upgrade Impact 51MW	--
TOTAL COST		\$56,606,110*

*Note: The above estimate includes 40% indirect overheads according to the transmission provider's current estimating process; however, an additional 32-35% for tax gross ups may be required if applicable. Therefore, a total cost of \$56,606,110 +32% to \$56,606,110 +35% may be required should the customer elect to proceed with the upgrades.

ATC is not available, the elements identified need to be upgraded. The costs of the upgrades are planning estimates only. Detailed cost estimates and solutions for the limiting elements will be provided in the facilities study. The results of the facilities study may be different depending on prior OASIS requests that progress to the facilities study phase, as well as identified system upgrade changes to the transmission system.

3.2 Criteria 2 Results:

Limitations to transfer are shown in Table 3 along with the remediation requirements.

TABLE 3 – Limitations to Transfer

Limiting Element	Required Upgrade	Upgrade Estimate
Grimes - Bentwater 138kV	Upgrade Transmission Line 26.06 miles	14,724,772
Grimes - Grimes 345/138kV transformer 1	Install 3 rd 345/138kV Auto @ Grimes	19,884,587
Grimes - Grimes 345/138kV transformer 2		
Grimes - Mt. Zion 138kV	Upgrade Transmission Line 19.2 miles	10,848,642
LINE 558 TAP - MT. Zion 138 kV	Upgrade Transmission Line 5.35 miles	3,022,929
Ray Braswell - Baxter Wilson 500kV	Supplemental Upgrade Impact 51MW	--
TOTAL COST		\$48,480,930*

*Note: The above estimate includes 40% indirect overheads according to the transmission provider's current estimating process; however, an additional 32-35% for tax gross ups may be required if applicable. Therefore, a total cost of \$48,480,930 +32% to \$48,480,930 +35% may be required should the customer elect to proceed with the upgrades.

ATC is not available, the elements identified need to be upgraded. The costs of the upgrades are planning estimates only. Detailed cost estimates and solutions for the limiting elements will be provided in the facilities study. The results of the facilities study may be different depending on prior OASIS requests that progress to the facilities study phase, as well as identified system upgrade changes to the transmission system.

3.3 Criteria 3 Results:

Limitations to transfer are shown in Table 3 along with the remediation requirements.

TABLE 4 – Limitations to Transfer

Limiting Element	Required Upgrade	Upgrade Estimate
Grimes - Bentwater 138kV	Upgrade Transmission Line 33.66 miles	19,019,026
Bentwater - Walden 138kV		
Walden - April 138kV		
April - Lake Forest 138kV		
Grimes - Grimes 345/138kV transformer 1	Install 3 rd 345/138kV Auto @ Grimes	19,884,587
Grimes - Grimes 345/138kV transformer 2		
Grimes - Mt. Zion 138kV	Upgrade Transmission Line 19.2 miles	10,848,642
Huntsville - LINE 558 TAP 138 kV	Upgrade Transmission Line 7.6 miles	4,294,254
LINE 558 TAP - MT. Zion 138 kV		
Ray Braswell - Baxter Wilson 500kV	Supplemental Upgrade Impact 51MW	--
TOTAL COST		\$54,046,509*

*Note: The above estimate includes 40% indirect overheads according to the transmission provider's current estimating process; however, an additional 32-35% for tax gross ups may be required if applicable. Therefore, a total cost of \$54,046,509 +32% to \$54,046,509 +35% may be required should the customer elect to proceed with the upgrades.

ATC is not available, the elements identified need to be upgraded. The costs of the upgrades are planning estimates only. Detailed cost estimates and solutions for the limiting elements will be provided in the facilities study. The results of the facilities study may be different depending on prior OASIS requests that progress to the facilities study phase, as well as identified system upgrade changes to the transmission system.

3.4 Criteria 4 Results:

Limitations to transfer are shown in Table 3 along with the remediation requirements.

TABLE 5 – Limitations to Transfer

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Limiting Element	Required Upgrade	Upgrade Estimate
Grimes - Grimes 345/138kV transformer 1	Install 3 rd 345/138kV Auto @ Grimes	19,884,587
Grimes - Grimes 345/138kV transformer 2		
Grimes - Mt. Zion 138kV	Upgrade Transmission Line 19.2 miles	10,848,642
LINE 558 TAP - MT. Zion 138 kV	Upgrade Transmission Line 5.35 miles	3,022,929
Ray Braswell - Baxter Wilson 500kV	Supplemental Upgrade Impact 51MW	--
TOTAL COST		\$33,756,158*

*Note: The above estimate includes 40% indirect overheads according to the transmission provider's current estimating process; however, an additional 32-35% for tax gross ups may be required if applicable. Therefore, a total cost of \$33,756,158 +32% to \$33,756,158 +35% may be required should the customer elect to proceed with the upgrades.

ATC is not available, the elements identified need to be upgraded. The costs of the upgrades are planning estimates only. Detailed cost estimates and solutions for the limiting elements will be provided in the facilities study. The results of the facilities study may be different depending on prior OASIS requests that progress to the facilities study phase, as well as identified system upgrade changes to the transmission system.

3.5 Criteria 5 Results:

Planning Re-dispatch from Entergy resources is not available for this request. Transmission providers are not required "...to incorporate offers to re-dispatch from third parties into their...planning re-dispatch" options. See Order No. 890 at P1139 and Entergy OATT, Section 15.4(b).

4. STUDY DATA:

TABLE 6 –Detailed Results - Study Criteria 1

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Year	Limiting Element	Contingency Element	ATC (MW)
7/1/2013 - 7/1/2014	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	0
	Grimes - Mt. Zion 138kV	Magnolia Anderson - Sota 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Cypress - Hartburg 500kV	0
	Grimes - Mt. Zion 138kV	Navasota - Sota 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Magnolia Anderson 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Magnolia Anderson - Sota 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Navasota - Sota 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	April - Lake Forest 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Cypress - Hartburg 500kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Grimes 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Bryan 138kV	0
	Grimes - Bentwater 138kV	Grimes - Mt. Zion 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Bentwater 138kV	0
	Walden - April 138kV	Grimes - Mt. Zion 138kV	0
	Grimes - Bentwater 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	Bentwater - Walden 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Walden - April 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Magnolia Anderson 138kV	6
	Walden - April 138kV	LINE 558 TAP - MT. Zion 138 kV	14
	Huntsville - LINE 558 TAP 138 kV	Magnolia Anderson - Sota 138kV	23
	Grimes - Bentwater 138kV	Huntsville - LINE 558 TAP 138 kV	48
	Huntsville - LINE 558 TAP 138 kV	April - Lake Forest 138kV	87
	Huntsville - LINE 558 TAP 138 kV	Navasota - Sota 138kV	98
	Huntsville - LINE 558 TAP 138 kV	Lake Forrest - Woodhaven 138kV	143
	Walden - April 138kV	Huntsville - LINE 558 TAP 138 kV	151
	Bogalusa - Adams Creek 500/230kV transformer	Franklin - Mcknight 500kV	174
	Huntsville - LINE 558 TAP 138 kV	College Station - Grimes 138kV	179
	Huntsville - LINE 558 TAP 138 kV	College Station - Bryan 138kV	199

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Year	Limiting Element	Contingency Element	ATC (MW)
	Bentwater - Walden 138kV	Grimes - Mt. Zion 138kV	251
	Grimes - Bentwater 138kV	Grimes - Magnolia Anderson 138kV	300
	Grimes - Bentwater 138kV	Magnolia Anderson - Sota 138kV	316
7/1/2014 - 7/1/2015	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Magnolia Anderson - Sota 138kV	0
	Grimes - Mt. Zion 138kV	Navasota - Sota 138kV	0
	Grimes - Mt. Zion 138kV	Cypress - Hartburg 500kV	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Magnolia Anderson 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Magnolia Anderson - Sota 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	April - Lake Forest 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Navasota - Sota 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Lake Forrest - Woodhaven 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Grimes 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Bentwater 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Bryan 138kV	0
	Grimes - Bentwater 138kV	Grimes - Mt. Zion 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Bentwater - Walden 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Walden - April 138kV	0
	Walden - April 138kV	Grimes - Mt. Zion 138kV	0
	Grimes - Bentwater 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Magnolia Anderson 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Magnolia Anderson - Sota 138kV	0
	Huntsville - LINE 558 TAP 138 kV	April - Lake Forest 138kV	0
	Walden - April 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Grimes - Bentwater 138kV	Huntsville - LINE 558 TAP 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	Navasota - Sota 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Lake Forrest - Woodhaven 138kV	0
	Walden - April 138kV	Huntsville - LINE 558 TAP 138 kV	33
	Huntsville - LINE 558 TAP 138 kV	College Station - Grimes 138kV	40

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Year	Limiting Element	Contingency Element	ATC (MW)
	Huntsville - LINE 558 TAP 138 kV	Conroe Bulk - Plantation 138kV	44
	Bentwater - Walden 138kV	Grimes - Mt. Zion 138kV	148
	April - Lake Forest 138kV	Grimes - Mt. Zion 138kV	220
	Grimes - Bentwater 138kV	Grimes - Magnolia Anderson 138kV	232
	Grimes - Bentwater 138kV	Magnolia Anderson - Sota 138kV	247
	Bentwater - Walden 138kV	LINE 558 TAP - MT. Zion 138 kV	277
	Grimes - Bentwater 138kV	Navasota - Sota 138kV	319
	Walden - April 138kV	Grimes - Magnolia Anderson 138kV	348
	April - Lake Forest 138kV	LINE 558 TAP - MT. Zion 138 kV	348
7/1/2015 - 7/1/2016	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	0
	Grimes - Mt. Zion 138kV	Magnolia Anderson - Sota 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Navasota - Sota 138kV	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	0
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Magnolia Anderson 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Magnolia Anderson - Sota 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Navasota - Sota 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Grimes 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	April - Lake Forest 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Bryan 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Lake Forrest - Woodhaven 138kV	0
	Grimes - Bentwater 138kV	Grimes - Mt. Zion 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Bentwater 138kV	0
	Walden - April 138kV	Grimes - Mt. Zion 138kV	0
	Grimes - Bentwater 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	Bentwater - Walden 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Walden - April 138kV	0
	Walden - April 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Magnolia Anderson 138kV	0
	Grimes - Bentwater 138kV	Huntsville - LINE 558 TAP 138 kV	0

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Year	Limiting Element	Contingency Element	ATC (MW)
	Huntsville - LINE 558 TAP 138 kV	Magnolia Anderson - Sota 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Navasota - Sota 138kV	0
	Huntsville - LINE 558 TAP 138 kV	April - Lake Forest 138kV	0
	Walden - April 138kV	Huntsville - LINE 558 TAP 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	Lake Forrest - Woodhaven 138kV	0
	Huntsville - LINE 558 TAP 138 kV	College Station - Grimes 138kV	0
	Huntsville - LINE 558 TAP 138 kV	College Station - Bryan 138kV	0
	Bentwater - Walden 138kV	Grimes - Mt. Zion 138kV	0
	Bentwater - Walden 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	April - Lake Forest 138kV	Grimes - Mt. Zion 138kV	0
	Bentwater - Walden 138kV	Huntsville - LINE 558 TAP 138 kV	3
	Fulton - Patmos 115kV	McNeil 500/115kV transformer	51
	April - Lake Forest 138kV	LINE 558 TAP - MT. Zion 138 kV	53
	Lake Forrest - Woodhaven 138kV	Grimes - Mt. Zion 138kV	123
	Lewisville - Patmos West 115kV	McNeil 500/115kV transformer	167
	April - Lake Forest 138kV	Huntsville - LINE 558 TAP 138 kV	232
	Lake Forrest - Woodhaven 138kV	LINE 558 TAP - MT. Zion 138 kV	279
7/1/2016 - 7/1/2017	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	0
	Grimes - Mt. Zion 138kV	Magnolia Anderson - Sota 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Navasota - Sota 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	0
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Magnolia Anderson 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Magnolia Anderson - Sota 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Navasota - Sota 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	April - Lake Forest 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Grimes 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Lake Forrest - Woodhaven 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Bryan 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Bentwater 138kV	0

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Year	Limiting Element	Contingency Element	ATC (MW)
	Grimes - Bentwater 138kV	Grimes - Mt. Zion 138kV	0
	Walden - April 138kV	Grimes - Mt. Zion 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Bentwater - Walden 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Walden - April 138kV	0
	Grimes - Bentwater 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Magnolia Anderson 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Magnolia Anderson - Sota 138kV	0
	Walden - April 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Grimes - Bentwater 138kV	Huntsville - LINE 558 TAP 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	April - Lake Forest 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Navasota - Sota 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Lake Forrest - Woodhaven 138kV	0
	Walden - April 138kV	Huntsville - LINE 558 TAP 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	College Station - Grimes 138kV	0
	Huntsville - LINE 558 TAP 138 kV	College Station - Bryan 138kV	0
	Bentwater - Walden 138kV	Grimes - Mt. Zion 138kV	0
	April - Lake Forest 138kV	Grimes - Mt. Zion 138kV	0
	Bentwater - Walden 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Fulton - Patmos 115kV	McNeil 500/115kV transformer	80
	April - Lake Forest 138kV	LINE 558 TAP - MT. Zion 138 kV	118
	Bentwater - Walden 138kV	Huntsville - LINE 558 TAP 138 kV	142
	Lake Forrest - Woodhaven 138kV	Grimes - Mt. Zion 138kV	188
	Lewisville - Patmos West 115kV	McNeil 500/115kV transformer	198
	April - Lake Forest 138kV	Huntsville - LINE 558 TAP 138 kV	265
	Lake Forrest - Woodhaven 138kV	LINE 558 TAP - MT. Zion 138 kV	343
7/1/2017 - 7/1/2018	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	0
	Grimes - Mt. Zion 138kV	Magnolia Anderson - Sota 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Navasota - Sota 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	0

*Relationship-Based • Member-Driven • Independence Through Diversity
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Year	Limiting Element	Contingency Element	ATC (MW)
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Magnolia Anderson 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Magnolia Anderson - Sota 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Navasota - Sota 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	April - Lake Forest 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Grimes 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Lake Forrest - Woodhaven 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Bryan 138kV	0
	Grimes - Bentwater 138kV	Grimes - Mt. Zion 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Bentwater 138kV	0
	Walden - April 138kV	Grimes - Mt. Zion 138kV	0
	Grimes - Bentwater 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	Bentwater - Walden 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Cypress - Hartburg 500kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Magnolia Anderson 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Magnolia Anderson - Sota 138kV	0
	Walden - April 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Grimes - Bentwater 138kV	Huntsville - LINE 558 TAP 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	April - Lake Forest 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Navasota - Sota 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Lake Forrest - Woodhaven 138kV	0
	Walden - April 138kV	Huntsville - LINE 558 TAP 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	College Station - Grimes 138kV	0
	Huntsville - LINE 558 TAP 138 kV	College Station - Bryan 138kV	0
	Bentwater - Walden 138kV	Grimes - Mt. Zion 138kV	0
	April - Lake Forest 138kV	Grimes - Mt. Zion 138kV	109
	Fulton - Patmos 115kV	McNeil 500/115kV transformer	132
	Bentwater - Walden 138kV	LINE 558 TAP - MT. Zion 138 kV	133
	Lewisville - Patmos West 115kV	McNeil 500/115kV transformer	254
	April - Lake Forest 138kV	LINE 558 TAP - MT. Zion 138 kV	265
	Bentwater - Walden 138kV	Huntsville - LINE 558 TAP 138 kV	277
	Lake Forrest - Woodhaven 138kV	Grimes - Mt. Zion 138kV	333
7/1/2018 - 7/1/2019	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	0
	Grimes - Mt. Zion 138kV	Magnolia Anderson - Sota 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Navasota - Sota 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	0

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Year	Limiting Element	Contingency Element	ATC (MW)
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Cypress - Hartburg 500kV	0
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Magnolia Anderson 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Magnolia Anderson - Sota 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Navasota - Sota 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	April - Lake Forest 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Grimes 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Lake Forrest - Woodhaven 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Bryan 138kV	0
	Grimes - Bentwater 138kV	Grimes - Mt. Zion 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Bentwater 138kV	0
	Walden - April 138kV	Grimes - Mt. Zion 138kV	0
	Grimes - Bentwater 138kV	LINE 558 TAP - MT. Zion 138 kV	33
	Huntsville - LINE 558 TAP 138 kV	Bentwater - Walden 138kV	67
	Huntsville - LINE 558 TAP 138 kV	Walden - April 138kV	74
	Walden - April 138kV	LINE 558 TAP - MT. Zion 138 kV	127
	Huntsville - LINE 558 TAP 138 kV	Grimes - Magnolia Anderson 138kV	163
	Huntsville - LINE 558 TAP 138 kV	Magnolia Anderson - Sota 138kV	178
	Grimes - Bentwater 138kV	Huntsville - LINE 558 TAP 138 kV	197
	Huntsville - LINE 558 TAP 138 kV	April - Lake Forest 138kV	234
	Fulton - Patmos 115kV	McNeil 500/115kV transformer	252
	Huntsville - LINE 558 TAP 138 kV	Navasota - Sota 138kV	273
	Grimes - Bentwater 138kV	Grimes - Magnolia Anderson 138kV	278
	Walden - April 138kV	Huntsville - LINE 558 TAP 138 kV	291
	Grimes - Bentwater 138kV	Magnolia Anderson - Sota 138kV	292
	Huntsville - LINE 558 TAP 138 kV	Lake Forrest - Woodhaven 138kV	304
	Bentwater - Walden 138kV	Grimes - Mt. Zion 138kV	330
7/1/2019 - 7/1/2033	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	0
	Grimes - Mt. Zion 138kV	Magnolia Anderson - Sota 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Navasota - Sota 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	0

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Year	Limiting Element	Contingency Element	ATC (MW)
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	0
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Magnolia Anderson 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Magnolia Anderson - Sota 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Navasota - Sota 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Grimes 138kV	0
	Grimes - Mt. Zion 138kV	Cypress - Hartburg 500kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Bryan 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	April - Lake Forest 138kV	0
	Grimes - Bentwater 138kV	Grimes - Mt. Zion 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Lake Forrest - Woodhaven 138kV	0
	Walden - April 138kV	Grimes - Mt. Zion 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Bentwater 138kV	0
	Grimes - Bentwater 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Walden - April 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	Bentwater - Walden 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Walden - April 138kV	0
	Grimes - Bentwater 138kV	Huntsville - LINE 558 TAP 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Magnolia Anderson 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Magnolia Anderson - Sota 138kV	0
	Walden - April 138kV	Huntsville - LINE 558 TAP 138 kV	0
	Bogalusa - Adams Creek 500/230kV transformer	Franklin - Mcknight 500kV	0
	Huntsville - LINE 558 TAP 138 kV	Navasota - Sota 138kV	0
	Huntsville - LINE 558 TAP 138 kV	April - Lake Forest 138kV	0
	Bentwater - Walden 138kV	Grimes - Mt. Zion 138kV	0
	Huntsville - LINE 558 TAP 138 kV	College Station - Grimes 138kV	0
	Huntsville - LINE 558 TAP 138 kV	College Station - Bryan 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Lake Forrest - Woodhaven 138kV	0
	Fulton - Patmos 115kV	McNeil 500/115kV transformer	62
	Grimes - Bentwater 138kV	Grimes - Magnolia Anderson 138kV	74
	Grimes - Bentwater 138kV	Magnolia Anderson - Sota 138kV	89
	Bentwater - Walden 138kV	LINE 558 TAP - MT. Zion 138 kV	99
	Walden - April 138kV	Grimes - Magnolia Anderson 138kV	182
	April - Lake Forest 138kV	Grimes - Mt. Zion 138kV	186

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Year	Limiting Element	Contingency Element	ATC (MW)
	Grimes - Bentwater 138kV	Navasota - Sota 138kV	187
	Walden - April 138kV	Magnolia Anderson - Sota 138kV	197
	Lewisville - Patmos West 115kV	McNeil 500/115kV transformer	223
	Bentwater - Walden 138kV	Huntsville - LINE 558 TAP 138 kV	273
	Walden - April 138kV	Navasota - Sota 138kV	295

TABLE 7 –Detailed Results - Study Criteria 2

Year	Limiting Element	Contingency Element	ATC (MW)
7/1/2013 - 7/1/2014	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	0
	Grimes - Mt. Zion 138kV	Magnolia Anderson - Sota 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Cypress - Hartburg 500kV	0
	Grimes - Mt. Zion 138kV	Navasota - Sota 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	0
	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	9
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	114
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	121
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Magnolia Anderson 138kV	144
	LINE 558 TAP - MT. Zion 138 kV	Magnolia Anderson - Sota 138kV	160
	LINE 558 TAP - MT. Zion 138 kV	Navasota - Sota 138kV	235
	LINE 558 TAP - MT. Zion 138 kV	April - Lake Forest 138kV	274
	LINE 558 TAP - MT. Zion 138 kV	Cypress - Hartburg 500kV	296
	LINE 558 TAP - MT. Zion 138 kV	College Station - Grimes 138kV	301
	LINE 558 TAP - MT. Zion 138 kV	College Station - Bryan 138kV	320
7/1/2014 - 7/1/2015	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Magnolia Anderson - Sota 138kV	0
	Grimes - Mt. Zion 138kV	Navasota - Sota 138kV	14
	Grimes - Mt. Zion 138kV	Cypress - Hartburg 500kV	18
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	59

Year	Limiting Element	Contingency Element	ATC (MW)
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	83
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	101
	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	148
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	173
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	202
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	202
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	314
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	320
7/1/2015 - 7/1/2016	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	0
	Grimes - Mt. Zion 138kV	Magnolia Anderson - Sota 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Navasota - Sota 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	0
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	9
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	16
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Magnolia Anderson 138kV	23
	LINE 558 TAP - MT. Zion 138 kV	Magnolia Anderson - Sota 138kV	44
	Ray Braswell - Baxter Wilson 500kV - Supplemental Upgrade	Franklin - Grand Gulf 500kV	89
	LINE 558 TAP - MT. Zion 138 kV	Navasota - Sota 138kV	141
	LINE 558 TAP - MT. Zion 138 kV	College Station - Grimes 138kV	213
	LINE 558 TAP - MT. Zion 138 kV	April - Lake Forest 138kV	219
	LINE 558 TAP - MT. Zion 138 kV	College Station - Bryan 138kV	236
	LINE 558 TAP - MT. Zion 138 kV	Lake Forrest - Woodhaven 138kV	288
	Grimes - Bentwater 138kV	Grimes - Mt. Zion 138kV	315
7/1/2016 - 7/1/2017	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
7/1/2017 - 7/1/2018	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	0
	Grimes - Mt. Zion 138kV	Magnolia Anderson - Sota 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0

Year	Limiting Element	Contingency Element	ATC (MW)
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Navasota - Sota 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	0
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	21
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	24
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	24
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	105
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	262
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	269
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Magnolia Anderson 138kV	296
	LINE 558 TAP - MT. Zion 138 kV	Magnolia Anderson - Sota 138kV	314
7/1/2018 - 7/1/2019	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	223
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	266
	Grimes - Mt. Zion 138kV	Walden - April 138kV	273
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	302
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	305
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	305
	Grimes - Mt. Zion 138kV	Magnolia Anderson - Sota 138kV	316
7/1/2019 - 7/1/2033	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	0
	Grimes - Mt. Zion 138kV	Magnolia Anderson - Sota 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Navasota - Sota 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	55
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	129
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	209
	Grimes - Mt. Zion 138kV	Cypress - Hartburg 500kV	320

TABLE 8 –Detailed Results - Study Criteria 3

Year	Limiting Element	Contingency Element	ATC (MW)
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*Relationship-Based • Member-Driven • Independence Through Diversity
Evolutionary vs. Revolutionary • Reliability & Economics Inseparable*

Year	Limiting Element	Contingency Element	ATC (MW)
7/1/2013 - 7/1/2014	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Conroe Bulk - Plantation 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Hartburg - Mount Olive 500kV	0
	Grimes - Mt. Zion 138kV	Navasota - Tubular 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	April - Lake Forest 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Lake Forrest - Woodhaven 138kV	0
	Grimes - Bentwater 138kV	Grimes - Mt. Zion 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Bentwater 138kV	11
	LINE 558 TAP - MT. Zion 138 kV	Conroe Bulk - Plantation 138kV	31
	Walden - April 138kV	Grimes - Mt. Zion 138kV	100
	Grimes - Bentwater 138kV	LINE 558 TAP - MT. Zion 138 kV	125
	Huntsville - LINE 558 TAP 138 kV	Bentwater - Walden 138kV	155
	Huntsville - LINE 558 TAP 138 kV	Walden - April 138kV	162
	LINE 558 TAP - MT. Zion 138 kV	College Station - Bryan 138kV	169
	Walden - April 138kV	LINE 558 TAP - MT. Zion 138 kV	230
	Grimes - Bentwater 138kV	Huntsville - LINE 558 TAP 138 kV	264
	LINE 558 TAP - MT. Zion 138 kV	Navasota - Tubular 138kV	285
	Huntsville - LINE 558 TAP 138 kV	April - Lake Forest 138kV	317
	LINE 558 TAP - MT. Zion 138 kV	Hartburg - Mount Olive 500kV	326
	LINE 558 TAP - MT. Zion 138 kV	Dobbin - Tubular 138kV	334
7/1/2014 - 7/1/2015	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Cypress - Hartburg 500kV	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	0
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Conroe Bulk - Plantation 138kV	0

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Year	Limiting Element	Contingency Element	ATC (MW)
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Navasota - Tubular 138kV	0
	Grimes - Mt. Zion 138kV	Dobbin - Tubular 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	April - Lake Forest 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Lake Forrest - Woodhaven 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Bentwater 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Cypress - Hartburg 500kV	0
	Grimes - Bentwater 138kV	Grimes - Mt. Zion 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Conroe Bulk - Plantation 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Bentwater - Walden 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Walden - April 138kV	0
	Walden - April 138kV	Grimes - Mt. Zion 138kV	0
	Grimes - Bentwater 138kV	LINE 558 TAP - MT. Zion 138 kV	13
	LINE 558 TAP - MT. Zion 138 kV	College Station - Bryan 138kV	68
	Huntsville - LINE 558 TAP 138 kV	April - Lake Forest 138kV	108
	Walden - April 138kV	LINE 558 TAP - MT. Zion 138 kV	115
	LINE 558 TAP - MT. Zion 138 kV	Navasota - Tubular 138kV	115
	Grimes - Bentwater 138kV	Huntsville - LINE 558 TAP 138 kV	133
	LINE 558 TAP - MT. Zion 138 kV	Dobbin - Tubular 138kV	165
	Huntsville - LINE 558 TAP 138 kV	Lake Forrest - Woodhaven 138kV	165
	Walden - April 138kV	Huntsville - LINE 558 TAP 138 kV	234
	Huntsville - LINE 558 TAP 138 kV	Conroe Bulk - Plantation 138kV	253
7/1/2015 - 7/1/2016	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	0
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Conroe Bulk - Plantation 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Navasota - Tubular 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	April - Lake Forest 138kV	0
	Grimes - Mt. Zion 138kV	Dobbin - Tubular 138kV	0

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Year	Limiting Element	Contingency Element	ATC (MW)
	LINE 558 TAP - MT. Zion 138 kV	Lake Forrest - Woodhaven 138kV	0
	Grimes - Bentwater 138kV	Grimes - Mt. Zion 138kV	0
	Grimes - Mt. Zion 138kV	Bryan - Pee Dee 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Bentwater 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Conroe Bulk - Plantation 138kV	0
	Grimes - Mt. Zion 138kV	Dolet Hills 345/230kV transformer (CLECO)	0
	Walden - April 138kV	Grimes - Mt. Zion 138kV	0
	Grimes - Bentwater 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	Bentwater - Walden 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Walden - April 138kV	0
	Walden - April 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Grimes - Bentwater 138kV	Huntsville - LINE 558 TAP 138 kV	0
	LINE 558 TAP - MT. Zion 138 kV	Navasota - Tubular 138kV	0
	Walden - April 138kV	Huntsville - LINE 558 TAP 138 kV	0
	LINE 558 TAP - MT. Zion 138 kV	Dobbin - Tubular 138kV	0
	Huntsville - LINE 558 TAP 138 kV	April - Lake Forest 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Lake Forrest - Woodhaven 138kV	0
	Bentwater - Walden 138kV	Grimes - Mt. Zion 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Bryan - Pee Dee 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Conroe Bulk - Plantation 138kV	31
	LINE 558 TAP - MT. Zion 138 kV	Dolet Hills 345/230kV transformer (CLECO)	34
	Bentwater - Walden 138kV	LINE 558 TAP - MT. Zion 138 kV	100
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	107
	Grimes - Mt. Zion 138kV	Cypress - Hartburg 500kV	116
	April - Lake Forest 138kV	Grimes - Mt. Zion 138kV	175
	Bentwater - Walden 138kV	Huntsville - LINE 558 TAP 138 kV	281
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	298
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	310
	April - Lake Forest 138kV	LINE 558 TAP - MT. Zion 138 kV	334
7/1/2016 - 7/1/2017	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	0
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Conroe Bulk - Plantation 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	0

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Year	Limiting Element	Contingency Element	ATC (MW)
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Navasota - Tubular 138kV	0
	Grimes - Mt. Zion 138kV	Dobbin - Tubular 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	April - Lake Forest 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Lake Forrest - Woodhaven 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Bentwater 138kV	0
	Grimes - Bentwater 138kV	Grimes - Mt. Zion 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Conroe Bulk - Plantation 138kV	0
	Walden - April 138kV	Grimes - Mt. Zion 138kV	0
	Grimes - Bentwater 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	Bentwater - Walden 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Walden - April 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Bryan 138kV	0
	Walden - April 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Grimes - Bentwater 138kV	Huntsville - LINE 558 TAP 138 kV	0
	LINE 558 TAP - MT. Zion 138 kV	Navasota - Tubular 138kV	0
	Huntsville - LINE 558 TAP 138 kV	April - Lake Forest 138kV	0
	Grimes - Mt. Zion 138kV	Cypress - Hartburg 500kV	0
	LINE 558 TAP - MT. Zion 138 kV	Dobbin - Tubular 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Lake Forrest - Woodhaven 138kV	0
	Walden - April 138kV	Huntsville - LINE 558 TAP 138 kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Grimes 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Conroe Bulk - Plantation 138kV	73
	Bentwater - Walden 138kV	Grimes - Mt. Zion 138kV	99
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	170
	April - Lake Forest 138kV	Grimes - Mt. Zion 138kV	225
	Bentwater - Walden 138kV	LINE 558 TAP - MT. Zion 138 kV	258
	Huntsville - LINE 558 TAP 138 kV	College Station - Bryan 138kV	328
7/1/2017 - 7/1/2018	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	0
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Conroe Bulk - Plantation 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	0

Year	Limiting Element	Contingency Element	ATC (MW)
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Navasota - Tubular 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	0
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	April - Lake Forest 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Lake Forrest - Woodhaven 138kV	0
	Grimes - Mt. Zion 138kV	Cypress - Hartburg 500kV	0
	Grimes - Bentwater 138kV	Grimes - Mt. Zion 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Bentwater 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Conroe Bulk - Plantation 138kV	0
	Walden - April 138kV	Grimes - Mt. Zion 138kV	0
	Grimes - Bentwater 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	Bentwater - Walden 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Walden - April 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Bryan 138kV	0
	Walden - April 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Grimes - Bentwater 138kV	Huntsville - LINE 558 TAP 138 kV	19
	LINE 558 TAP - MT. Zion 138 kV	Navasota - Tubular 138kV	43
	Huntsville - LINE 558 TAP 138 kV	April - Lake Forest 138kV	60
	LINE 558 TAP - MT. Zion 138 kV	Dobbin - Tubular 138kV	97
	Huntsville - LINE 558 TAP 138 kV	Lake Forrest - Woodhaven 138kV	129
	LINE 558 TAP - MT. Zion 138 kV	College Station - Grimes 138kV	133
	Walden - April 138kV	Huntsville - LINE 558 TAP 138 kV	133
	LINE 558 TAP - MT. Zion 138 kV	Cypress - Hartburg 500kV	224
	Bentwater - Walden 138kV	Grimes - Mt. Zion 138kV	241
	Huntsville - LINE 558 TAP 138 kV	Conroe Bulk - Plantation 138kV	242
7/1/2018 - 7/1/2019	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	Cypress - Hartburg 500kV	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	0
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	0
	Grimes - Mt. Zion 138kV	Conroe Bulk - Plantation 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	0

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Year	Limiting Element	Contingency Element	ATC (MW)
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	0
	Grimes - Bentwater 138kV	Grimes - Mt. Zion 138kV	0
	Grimes - Mt. Zion 138kV	Navasota - Tubular 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	April - Lake Forest 138kV	40
	Walden - April 138kV	Grimes - Mt. Zion 138kV	43
	Grimes - Bentwater 138kV	LINE 558 TAP - MT. Zion 138 kV	76
	LINE 558 TAP - MT. Zion 138 kV	Lake Forrest - Woodhaven 138kV	102
	LINE 558 TAP - MT. Zion 138 kV	Cypress - Hartburg 500kV	114
	Walden - April 138kV	LINE 558 TAP - MT. Zion 138 kV	172
	Huntsville - LINE 558 TAP 138 kV	Grimes - Bentwater 138kV	184
	LINE 558 TAP - MT. Zion 138 kV	College Station - Bryan 138kV	208
	LINE 558 TAP - MT. Zion 138 kV	Conroe Bulk - Plantation 138kV	225
	Grimes - Bentwater 138kV	Huntsville - LINE 558 TAP 138 kV	243
	Walden - April 138kV	Huntsville - LINE 558 TAP 138 kV	339
	Huntsville - LINE 558 TAP 138 kV	Bentwater - Walden 138kV	342
	Huntsville - LINE 558 TAP 138 kV	Walden - April 138kV	349
7/1/2019 - 7/1/2033	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	0
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Conroe Bulk - Plantation 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	College Station - Grimes 138kV	0
	Grimes - Mt. Zion 138kV	Grimes - Magnolia Anderson 138kV	0
	Grimes - Mt. Zion 138kV	Magnolia Anderson - Sota 138kV	0
	Grimes - Mt. Zion 138kV	Cypress - Hartburg 500kV	0
	LINE 558 TAP - MT. Zion 138 kV	April - Lake Forest 138kV	0
	Grimes - Bentwater 138kV	Grimes - Mt. Zion 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Lake Forrest - Woodhaven 138kV	0
	Walden - April 138kV	Grimes - Mt. Zion 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Grimes - Bentwater 138kV	0
	Grimes - Bentwater 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	LINE 558 TAP - MT. Zion 138 kV	Conroe Bulk - Plantation 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Bryan 138kV	0

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Year	Limiting Element	Contingency Element	ATC (MW)
	Walden - April 138kV	LINE 558 TAP - MT. Zion 138 kV	0
	Huntsville - LINE 558 TAP 138 kV	Bentwater - Walden 138kV	0
	Huntsville - LINE 558 TAP 138 kV	Walden - April 138kV	0
	Grimes - Bentwater 138kV	Huntsville - LINE 558 TAP 138 kV	0
	LINE 558 TAP - MT. Zion 138 kV	Cypress - Hartburg 500kV	0
	LINE 558 TAP - MT. Zion 138 kV	College Station - Grimes 138kV	0
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Magnolia Anderson 138kV	0
	Walden - April 138kV	Huntsville - LINE 558 TAP 138 kV	0
	LINE 558 TAP - MT. Zion 138 kV	Navasota - Tubular 138kV	0
	Bentwater - Walden 138kV	Grimes - Mt. Zion 138kV	6
	Huntsville - LINE 558 TAP 138 kV	April - Lake Forest 138kV	16
	Huntsville - LINE 558 TAP 138 kV	Lake Forrest - Woodhaven 138kV	90
	Bentwater - Walden 138kV	LINE 558 TAP - MT. Zion 138 kV	179
	Huntsville - LINE 558 TAP 138 kV	Conroe Bulk - Plantation 138kV	212
	April - Lake Forest 138kV	Grimes - Mt. Zion 138kV	269

TABLE 9 –Detailed Results - Study Criteria 4

Year	Limiting Element	Contingency Element	ATC (MW)
7/1/2013 - 7/1/2014	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	118
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	146
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	146
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	174
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	211
	Grimes - Mt. Zion 138kV	Conroe Bulk - Plantation 138kV	258
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	322
	Grimes - Mt. Zion 138kV	Hartburg - Mount Olive 500kV	329
7/1/2014 - 7/1/2015	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	59
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	136
	Grimes - Mt. Zion 138kV	Walden - April 138kV	142
	Grimes - Mt. Zion 138kV	Cypress - Hartburg 500kV	240
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	276
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	333
7/1/2015 - 7/1/2016	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	0
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	28
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	98
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	131
	Grimes - Mt. Zion 138kV	Conroe Bulk - Plantation 138kV	211
	LINE 558 TAP - MT. Zion 138 kV	Bentwater - Walden 138kV	303
	LINE 558 TAP - MT. Zion 138 kV	Walden - April 138kV	311
7/1/2016 - 7/1/2017	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	47
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	117
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	134
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	134
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	196

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Year	Limiting Element	Contingency Element	ATC (MW)
	Grimes - Mt. Zion 138kV	Conroe Bulk - Plantation 138kV	230
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	314
7/1/2017 - 7/1/2018	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	54
	Grimes - Mt. Zion 138kV	Walden - April 138kV	61
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	227
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	295
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	310
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	310
	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
7/1/2018 - 7/1/2019	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	264
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	341
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	341
	Ray Braswell - Baxter Wilson 500kV	Franklin - Grand Gulf 500kV	0
7/1/2019 - 7/1/2033	Grimes - Mt. Zion 138kV	Grimes - Bentwater 138kV	0
	Grimes - Mt. Zion 138kV	Bentwater - Walden 138kV	0
	Grimes - Mt. Zion 138kV	Walden - April 138kV	0
	Grimes - Grimes 345/138kV transformer 2	Grimes - Grimes 345/138kV transformer 1	26
	Grimes - Grimes 345/138kV transformer 1	Grimes - Grimes 345/138kV transformer 2	26
	Grimes - Mt. Zion 138kV	April - Lake Forest 138kV	130
	Grimes - Mt. Zion 138kV	Lake Forrest - Woodhaven 138kV	204
	Grimes - Mt. Zion 138kV	College Station - Bryan 138kV	281
	LINE 558 TAP - MT. Zion 138 kV	Grimes - Bentwater 138kV	289
	Grimes - Mt. Zion 138kV	Cypress - Hartburg 500kV	315
	Grimes - Mt. Zion 138kV	Conroe Bulk - Plantation 138kV	326

TABLE 10 – Confirmed Reservations

OASIS		PSE	MW	Begin	End
569011		Entergy Services, Inc. (EMO)	242	3/1/2000	1/1/2014
759196		Entergy Services, Inc. (EMO)	143	1/1/2001	1/1/2021
759294		East Texas Electric Cooperative	31	1/1/2001	1/1/2018
1096986		Tennessee Valley Authority	73	9/1/2003	9/1/2013
1099991	renewal	City Water & Light, Jonesboro	83	1/1/2010	1/1/2016
1099997	renewal	City Water & Light, Jonesboro	168	1/1/2010	1/1/2016
1105665		Entergy Services, Inc. (EMO)	236	2/1/2003	2/1/2016
1105666		Entergy Services, Inc. (EMO)	91	2/1/2003	2/1/2027
1105668		Entergy Services, Inc. (EMO)	77	2/1/2003	2/1/2027
1126821		Entergy Services, Inc. (EMO)	101	5/1/2004	5/1/2029
1151106		Entergy Services, Inc. (EMO)	20	6/1/2010	6/1/2029
1168061		Entergy Services, Inc. (EMO)	80	8/1/2004	2/1/2028
1168408		Entergy Services, Inc. (EMO)	247	8/1/2004	2/1/2028
1289686	undesignation	Entergy Services, Inc. (EMO)	1	6/1/2007	6/1/2030
1294132		Entergy Services, Inc. (EMO)	526	1/1/2006	1/1/2035
1309874	renewal	East Texas Electric Cooperative	75	1/1/2009	1/1/2017
1309875	renewal	East Texas Electric Cooperative	50	1/1/2009	1/1/2017
1309876	renewal	East Texas Electric Cooperative	50	1/1/2009	1/1/2017
1356328		Muni Energy Agcy of Miss	40	6/1/2010	6/1/2040
1373643		City of Conway	25	3/1/2010	3/1/2040
1375299		Louisiana Generating LLC	11	3/1/2006	3/1/2013
1375559		CLECO Power LLC (Gen)	675	12/1/2006	12/1/2016
1380484		Osceola Light & Power	9	9/1/2009	9/1/2039
1381398		Constellation Energy Commodities Grp.	34	1/1/2006	1/1/2036
1381400		Constellation Energy Commodities Grp.	34	1/1/2006	1/1/2036
1381404		Constellation Energy Commodities Grp.	17	1/1/2006	1/1/2036
1381406		Constellation Energy Commodities Grp.	17	1/1/2006	1/1/2036
1383852		Arkansas Electric Cooperative Corp.	550	1/1/2007	1/1/2017
1385158		NRG Power Marketing	13	10/1/2007	10/1/2027
1387272		CLECO Power LLC (Gen)	11	4/1/2006	4/1/2016
1410022		Constellation Energy Commodities Grp.	60	3/1/2010	3/1/2040
1422708	undesignation	Entergy Services, Inc. (EMO)	1	1/1/2007	1/1/2027
1425495		East Texas Electric Cooperative	50	3/1/2010	3/1/2045
1437089		Arkansas Electric Cooperative Corp.	349	1/1/2007	1/1/2012
1440189		Arkansas Electric Cooperative Corp.	84	1/1/2008	1/1/2012
1440190		Arkansas Electric Cooperative Corp.	104	1/1/2008	1/1/2012
1442453		NRG Power Marketing	320	6/1/2007	6/1/2026
1449495		Entergy Services, Inc. (EMO)	322	6/1/2009	6/1/2059
1456636		CLECO Power Marketing	10	10/1/2007	10/1/2012
1460876		Aquila Networks-MPS	75	3/1/2009	3/1/2029
1460878		Aquila Networks-MPS	75	3/1/2009	3/1/2029
1460879		Aquila Networks-MPS	75	3/1/2009	3/1/2029
1460881		Aquila Networks-MPS	75	3/1/2009	3/1/2029
1460898		Louisiana Energy & Power Authority	3	1/1/2009	1/1/2030

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OASIS		PSE	MW	Begin	End
1460899		Louisiana Energy & Power Authority	5	1/1/2009	1/1/2030
1461442		Louisiana Energy & Power Authority	12	1/1/2009	1/1/2030
1464028		East Texas Electric Cooperative	168	1/1/2010	1/1/2040
1468113		Muni Energy Agcy of Miss	20	6/1/2011	6/1/2041
1470484		City of West Memphis	20	1/1/2011	1/1/2041
1470811		East Texas Electric Cooperative	186	1/1/2010	1/1/2040
1477069		Entergy Services, Inc. (EMO)	10	11/1/2007	11/1/2037
1480164		Entergy Services, Inc. (EMO)	725	1/1/2005	9/1/2033
1495910		Southwestern Electric	78	5/1/2010	5/1/2013
1498122		Constellation Energy Commodities Grp.	30	4/1/2012	4/1/2042
1498129		City of Conway	50	4/1/2012	4/1/2042
1499610		NRG Power Marketing	300	1/1/2008	1/1/2013
1500582	undesignation	Entergy Services, Inc. (EMO)	1	1/1/2008	1/1/2038
1500584	undesignation	Entergy Services, Inc. (EMO)	1	1/1/2008	1/1/2038
1502952		Arkansas Electric Cooperative Corp.	330	1/1/2008	1/1/2030
1514102		East Texas Electric Cooperative	29	1/1/2008	1/1/2017
1514104		East Texas Electric Cooperative	35	1/1/2008	1/1/2017
1514105		East Texas Electric Cooperative	1	1/1/2008	1/1/2017
1517005	renewal	NRG Power Marketing	103	1/1/2011	1/1/2026
1525820	renewal	NRG Power Marketing	3	7/1/2009	7/1/2014
1527816		Westar Energy Gen & Mktg	6	10/1/2007	10/1/2012
1530287		Empire District Electric	50	3/1/2010	3/1/2030
1530288		Empire District Electric	50	3/1/2010	3/1/2030
1546108	undesignation	Entergy Services, Inc. (EMO)	1	1/1/2011	1/1/2051
1552148	undesignation	Entergy Services, Inc. (EMO)	1	1/1/2009	1/1/2014
1555717	undesignation	East Texas Electric Cooperative	1	1/1/2010	1/1/2015
1555718		Entergy Services, Inc. (EMO)	158	1/1/2010	1/1/2015
1557220	undesignation	Entergy Services, Inc. (EMO)	1	7/1/2009	7/1/2018
1557221		Entergy Services, Inc. (EMO)	520	7/1/2009	7/1/2018
1557602	undesignation	East Texas Electric Cooperative	1	1/1/2009	1/1/2017
1564001	renewal	Louisiana Energy & Power Authority	6	4/1/2009	4/1/2014
1564356	renewal	NRG Power Marketing	5	9/1/2009	9/1/2025
1566302		NRG Power Marketing	300	1/1/2008	1/1/2013
1585225	renewal	City of Prescott	22	4/1/2009	4/1/2039
1585239	undesignation	Entergy Services, Inc. (EMO)	1	1/1/2009	1/1/2013
1585240	undesignation	Entergy Services, Inc. (EMO)	1	1/1/2009	1/1/2013
1598022	renewal	NRG Power Marketing	103	7/1/2010	7/1/2015
1598291		Entergy Services, Inc. (EMO)	206	6/1/2012	6/1/2042
1598885	renewal	Morgan Stanley Commodities Group	102	1/1/2009	1/1/2014
1598886	renewal	Morgan Stanley Commodities Group	102	1/1/2009	1/1/2014
1601111		Constellation Energy Commodities Grp.	5	1/1/2010	1/1/2015
1602650		NRG Power Marketing	5	7/1/2010	7/1/2020
1611309		Entergy Services, Inc. (EMO)	804	1/1/2011	1/1/2058
1615102	renewal	MidAmerican Energy, Inc.	50	1/1/2009	1/1/2014
1615103	renewal	MidAmerican Energy, Inc.	50	1/1/2009	1/1/2014

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OASIS		PSE	MW	Begin	End
1615105	renewal	MidAmerican Energy, Inc.	50	1/1/2009	1/1/2014
1615108	renewal	MidAmerican Energy, Inc.	50	1/1/2009	1/1/2014
1629240	renewal	MidAmerican Energy, Inc.	7	3/1/2009	3/1/2014
1630065	renewal	NRG Power Marketing	40	1/1/2010	1/1/2015
1632265	undesignation	Merrill Lynch Commodities	1	4/1/2009	4/1/2014
1632268		Merrill Lynch Commodities	25	4/1/2009	4/1/2014
1633701		NRG Power Marketing	20	1/1/2010	1/1/2019
1633702		NRG Power Marketing	20	1/1/2010	1/1/2016
1633703		NRG Power Marketing	20	1/1/2010	1/1/2016
1639337		Entergy Services, Inc. (EMO)	587	3/1/2009	1/1/2019
1639338		Entergy Services, Inc. (EMO)	103	3/1/2009	1/1/2019
1639339		Entergy Services, Inc. (EMO)	32	3/1/2009	1/1/2019
1639340		Entergy Services, Inc. (EMO)	122	3/1/2009	1/1/2019
1639341		Entergy Services, Inc. (EMO)	134	3/1/2009	1/1/2019
1640629		CLECO Power Marketing	58	5/1/2001	1/1/2021
1640630		CLECO Power Marketing	32	5/1/2001	1/1/2021
1643983	renewal	NRG Power Marketing	300	1/1/2010	1/1/2015
1643984	renewal	NRG Power Marketing	100	9/1/2010	9/1/2015
1644155		CLECO Power Marketing	9	4/1/2009	5/1/2016
1644215	renewal	NRG Power Marketing	83	1/1/2010	1/1/2025
1644908		CLECO Power Marketing	41	5/1/2009	5/1/2018
1648049	undesignation	Entergy Services, Inc. (EMO)	1	6/1/2010	6/1/2013
1648050		Entergy Services, Inc. (EMO)	100	6/1/2010	6/1/2013
1648591		Entergy Services, Inc. (EMO)	1	6/1/2010	6/1/2012
1648592		Entergy Services, Inc. (EMO)	485	6/1/2010	6/1/2012
1655366		Missouri Joint Municipal Electric Utility Comm.	6	10/1/2009	10/1/2014
1658087		Entergy Services, Inc. (EMO)	1	6/1/2012	6/1/2042
1658088		South Miss Electric Power Assoc.	21	6/1/2012	6/1/2042
1659388		NRG Power Marketing	25	1/1/2011	1/1/2016
1665168	renewal	Merrill Lynch Commodities	60	11/1/2009	11/1/2014
1665288		Merrill Lynch Commodities	15	1/1/2011	1/1/2012
1665492	renewal	Merrill Lynch Commodities	16	11/1/2009	11/1/2014
1665493	renewal	Merrill Lynch Commodities	4	11/1/2009	11/1/2014
1665899		Ameren Energy, Inc.	75	9/1/2009	9/1/2014
1669126	renewal	Cargill Power Markets, LLC	103	1/1/2011	1/1/2016
1669127	renewal	Cargill Power Markets, LLC	103	1/1/2011	1/1/2016
1676674		NRG Power Marketing	100	1/1/2011	1/1/2020
1676675		NRG Power Marketing	100	1/1/2011	1/1/2020
1677749		Entergy Services, Inc. (EMO)	1	1/1/2013	1/1/2015
1679179	renewal	NRG Power Marketing	100	1/1/2011	1/1/2016
1679181	renewal	NRG Power Marketing	100	1/1/2011	1/1/2016
1682716	renewal	NRG Power Marketing	206	1/1/2011	1/1/2012
1685869	renewal	Muni Energy Agcy of Miss	19	1/1/2010	1/1/2018

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OASIS		PSE	MW	Begin	End
1689499		Missouri Joint Municipal Electric Utility Comm.	3	9/1/2009	9/1/2014
1690613		NRG Power Marketing	25	1/1/2011	1/1/2016
1694305		Entergy Services, Inc. (EMO)	15	5/1/2010	5/1/2020
1694306		Entergy Services, Inc. (EMO)	30	5/1/2010	5/1/2020
73454527		Hope Water & Light	10	10/1/2009	10/1/2032
73457918		South Miss Electric Power Assoc.	180	10/1/2009	10/1/2014
73573797	renewal	American Electric Power	45	1/1/2011	1/1/2029
73586299	renewal	American Electric Power	6	1/1/2011	1/1/2029
73595626		NRG Power Marketing	13	1/1/2012	1/1/2017
73723105		Arkansas Electric Cooperative Corp.	270	1/1/2010	1/1/2015
73724303		Arkansas Electric Cooperative Corp.	104	1/1/2010	1/1/2015
73741113	renewal	Entergy Services, Inc. (EMO)	150	5/1/2010	5/1/2020
73741122	renewal	Entergy Services, Inc. (EMO)	135	5/1/2010	5/1/2020
73774729		Arkansas Electric Cooperative Corp.	84	1/1/2010	1/1/2015
73820650		MOWR	5	3/1/2010	3/1/2040
73942862	renewal	Muni Energy Agcy of Miss	13	6/1/2010	6/1/2015
73970673		Cargill Power Markets, LLC	40	1/1/2012	1/1/2016
73987480		South Miss Electric Power Assoc.	100	5/1/2010	5/1/2040
73987507		South Miss Electric Power Assoc.	180	6/1/2010	6/1/2015
73990804		South Miss Electric Power Assoc.	100	5/1/2010	5/1/2040
74001787		NRG Power Marketing	100	1/1/2011	1/1/2016
74001895		NRG Power Marketing	100	1/1/2011	1/1/2016
74001897		NRG Power Marketing	22	1/1/2011	1/1/2016
74001904		NRG Power Marketing	28	1/1/2011	1/1/2016
74001930		NRG Power Marketing	42	8/1/2006	8/1/2036
74001931		NRG Power Marketing	60	3/1/2010	3/1/2040
74001934		NRG Power Marketing	60	4/1/2012	4/1/2042
74233619		WRGS	15	4/1/2012	4/1/2017
74370625		Entergy Services, Inc. (EMO)	10	7/1/2010	7/1/2012
74514903	renewal	Entergy Services, Inc. (EMO)	20	6/1/2013	6/1/2029
74514911	renewal	Entergy Services, Inc. (EMO)	101	6/1/2013	6/1/2029

TABLE 11 - Pre-Order 888 Transactions

OASIS		PSE	MW	Begin	End
1332606		East Texas Electric Cooperative	55	1/1/2006	1/1/2017
1412155		Entergy Services, Inc. (EMO)	1718	1/1/2007	1/1/2038
1412156		Entergy Services, Inc. (EMO)	741	1/1/2007	1/1/2038
1412158		Entergy Services, Inc. (EMO)	1867	1/1/2007	1/1/2038
1412160		Entergy Services, Inc. (EMO)	1142	1/1/2007	1/1/2038
1412161		Entergy Services, Inc. (EMO)	59	1/1/2007	1/1/2038
1412162		Entergy Services, Inc. (EMO)	148	1/1/2007	1/1/2038
1412163		Entergy Services, Inc. (EMO)	194	1/1/2007	1/1/2038
1412164		Entergy Services, Inc. (EMO)	1157	1/1/2007	1/1/2038
1412165		Entergy Services, Inc. (EMO)	1219	1/1/2007	1/1/2038
1412166		Entergy Services, Inc. (EMO)	683	1/1/2007	1/1/2038
1412167		Entergy Services, Inc. (EMO)	140	1/1/2007	1/1/2038
1412168		Entergy Services, Inc. (EMO)	456	1/1/2007	1/1/2038
1412169		Entergy Services, Inc. (EMO)	739	1/1/2007	1/1/2038
1412170		Entergy Services, Inc. (EMO)	183	1/1/2007	1/1/2038
1412171		Entergy Services, Inc. (EMO)	64	1/1/2007	1/1/2038
1412172		Entergy Services, Inc. (EMO)	870	1/1/2007	1/1/2038
1412173		Entergy Services, Inc. (EMO)	129	1/1/2007	1/1/2038
1412174		Entergy Services, Inc. (EMO)	140	1/1/2007	1/1/2038
1412175		Entergy Services, Inc. (EMO)	130	1/1/2007	1/1/2038
1412176		Entergy Services, Inc. (EMO)	65	1/1/2007	1/1/2038
1412177		Entergy Services, Inc. (EMO)	947	1/1/2007	1/1/2038
1412178		Entergy Services, Inc. (EMO)	61	1/1/2007	1/1/2038
1412179		Entergy Services, Inc. (EMO)	304	1/1/2007	1/1/2038
1412180		Entergy Services, Inc. (EMO)	351	1/1/2007	1/1/2038
1412181		Entergy Services, Inc. (EMO)	692	1/1/2007	1/1/2038
1412182		Entergy Services, Inc. (EMO)	1641	1/1/2007	1/1/2038
1412183		Entergy Services, Inc. (EMO)	433	1/1/2007	1/1/2038
1412184		Entergy Services, Inc. (EMO)	1946	1/1/2007	1/1/2038
1412185		Entergy Services, Inc. (EMO)	946	1/1/2007	1/1/2038
1412186		Entergy Services, Inc. (EMO)	1233	1/1/2007	1/1/2028
1498278		Entergy Services, Inc. (EMO)	75	8/1/2007	1/1/2017
1498281		Entergy Services, Inc. (EMO)	86	8/1/2007	1/1/2017
1498283		Entergy Services, Inc. (EMO)	68	8/1/2007	1/1/2017
1498284		Entergy Services, Inc. (EMO)	78	8/1/2007	1/1/2017
1498285		Entergy Services, Inc. (EMO)	11	8/1/2007	1/1/2044
1498286		Entergy Services, Inc. (EMO)	69	8/1/2007	1/1/2044
1498287		Entergy Services, Inc. (EMO)	14	8/1/2007	1/1/2044
1528114		Entergy Services, Inc. (EMO)	1523	1/1/2008	1/1/2038
1528115		Entergy Services, Inc. (EMO)	1039	1/1/2008	1/1/2038
1528116		Entergy Services, Inc. (EMO)	1834	1/1/2008	1/1/2038

TABLE 12 - Study Queue

OASIS		PSE	MW	Begin	End
1668165		Entergy Services (SPO)	600	1/1/2013	1/1/2043
73970673		Cargill Power Markets	40	1/1/2011	1/1/2016
74035217		NRG Power Marketing	450	5/1/2012	5/1/2017
74167292		Entegra Power	490	1/1/2013	1/1/2018
74182226		NRG Power Marketing	40	1/1/2012	1/1/2017
74182231		NRG Power Marketing	40	1/1/2012	1/1/2017
74182339		NRG Power Marketing	50	1/1/2012	1/1/2017
74191024		NRG Power Marketing	200	1/1/2011	1/1/2016
74233670		Entergy Services (SPO)	1	8/1/2010	8/1/2040
74236776		NRG Power Marketing	100	6/1/2012	6/1/2017
74236787		NRG Power Marketing	75	6/1/2012	6/1/2017
74236794		NRG Power Marketing	100	6/1/2012	6/1/2017
74236798		NRG Power Marketing	100	6/1/2012	6/1/2017
74236807		NRG Power Marketing	250	6/1/2012	6/1/2017
74260716 74260719 74260724		Cargill Power Markets	303	7/1/2012	7/1/2032
74260727 74260738		Cargill Power Markets	202	12/1/2012	12/1/2032
74260749 74260755		Cargill Power Markets	201	7/1/2012	7/1/2032
74260760		Cargill Power Markets	150	12/1/2012	12/1/2032
74260770 74262225		Cargill Power Markets	251	7/1/2012	7/1/2032
74262233		Cargill Power Markets	201	7/1/2013	7/1/2033
74262289 74262293		Cargill Power Markets	402	7/1/2013	7/1/2033
74262302		Cargill Power Markets	101	7/1/2012	7/1/2032
74262337 74262339 74262342		Cargill Power Markets	303	7/1/2013	7/1/2033