



GENERATOR INTERCONNECTION AFFECTED SYSTEM IMPACT STUDY REPORT

ASGI-2017-008

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By SPP Generator Interconnections Dept.

REVISION HISTORY

Date	Author	Change Description
3/1/2018	SPP	Affected System Impact Study for ASGI-2017-008 Report Revision 0 Issued

EXECUTIVE SUMMARY

An Affected System Interconnection Customer has requested an Affected System Impact Study (ASIS) consistent with Southwest Power Pool (SPP) Open Access Transmission Tariff (OATT) for interconnection requests into the system of Associated Electric Cooperative Inc. (AECI). AECI request GI-59/SIS-30, 158.6 MW wind generating facility, has been assigned the SPP queue identifier ASGI-2017-008.

This ASIS addresses the effects to the SPP system of interconnecting the generators to the AECI transmission system for the system topology and requests included in SPP DISIS-2016-001. ASGI-2017-008 is requesting the interconnection of fifty-seven (57) 2.5 MW General Electric (G.E.) and seven (7) 2.3 MW G.E. wind turbines for a total of 158.6 MW injection at the Point of Interconnection (POI) and associated facilities interconnecting to AECI at the Remington - Shidler 138kV substation in Osage County, OK.

The ASIS analysis has determined that the ASGI-2017-008 request can interconnect 158.6 MW of generation with Energy Resource Interconnection Service (ERIS) and Network Resource Interconnection Service (NRIS) with the study dispatch assumption listed in **Table 1** after the completion of the required Network Upgrades, listed within **Table 2** of this report.

It should be noted that although this ASIS analyzed many of the most probable contingencies, it is not an all-inclusive list that can account for every operational situation. Additionally, the generator may not be able to inject any power onto the Transmission System due to constraints that fall below the threshold of mitigation for a Generator Interconnection request. Because of this, it is likely that the Customer(s) may be required to reduce their generation output to 0 MW under certain system conditions to allow system operators to maintain the reliability of the transmission network.

Transient stability analysis for this ASIS has determined that issues were observed as listed in **Table 4** for the transmission system for the thirty-seven (37) selected faults for the interconnection of ASGI-2017-008 and the analysis shows that the generators will meet Low Voltage Ride-Through (LVRT) requirements of FERC Order #661A. As discussed above, this amount may be reduced further dependent upon system conditions.

Nothing in this study should be construed as a guarantee of delivery or transmission service. If the customer(s) wishes to move power across the facilities of SPP, a separate request for transmission service must be made on Southwest Power Pool's OASIS by the Customer(s).

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PURPOSE

An Affected System Interconnection Customer has requested an Affected System Impact Study (ASIS) consistent with the Southwest Power Pool (SPP) Open Access Transmission Tariff (OATT) for interconnection requests into the system of Associated Electric Cooperative Inc. (AECI).

The purpose of this study is to evaluate the impacts of interconnecting the AECI GI-059/SIS-30 request assigned the SPP queue identifier ASGI-2017-008. ASGI-2017-008 is requesting the interconnection of fifty-seven (57) 2.5 MW General Electric (G.E.) and seven (7) 2.3 MW G.E. wind turbines for a total of 158.6 MW injection at the Point of Interconnection (POI) and associated facilities interconnecting to AECI at the Remington – Shidler 138 kV line in Osage County, OK.

The ASIS considers the Base Case as well as all Generating Facilities (and with respect to (b) below, any identified Network Upgrades associated with such higher queued interconnection) that, on the date the ASIS is commenced:

- a) are directly interconnected to the Transmission System;
- b) are interconnected to Affected Systems and may have an impact on the Interconnection Request;
- c) have a pending higher queued Interconnection Request to interconnect to the Transmission System listed in **Table 1**; or
- d) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC.

Any changes to these assumptions, for example, one or more of the previously queued requests not included within this study execute an interconnection agreement and commencing commercial operation, may require a re-study of this ASIS at the expense of the Customer(s).

Nothing within this System Impact Study constitutes a request for transmission service or confers upon the Interconnection Customer(s) any right to receive transmission service rights. Should the Customer(s) require transmission service, those rights should be requested through SPP's Open Access Same-Time Information System (OASIS) or that of the applicable transmission provider.

This ASIS included prior queued generation interconnection requests. Those listed within **Table 1** are the generation interconnection requests that are assumed to have rights to either full or partial interconnection service prior to the requested in-service for this ASIS. Also listed in **Table 1** are both the amount of MW of interconnection service expected at the effective time of this study and the total MW requested of interconnection service, the fuel type, the Point of Interconnection (POI), and the current status of each particular prior queued request.

Table 1: Generation Requests Included within ASIS

Project	MW	Fuel Source	POI	Status
ASGI-2010-006	150	Wind	Remington 138kV	Commercial Operation
ASGI-2014-014	56.4	Thermal	Ferguson 69kV	Commercial Operation
ASGI-2015-004	56.36	Thermal	Coffeyville City 69kV	Commercial Operation
GEN-2002-004	200	Wind	Latham 345kV	Commercial Operation
GEN-2005-013	201	Wind	Caney River 345kV	Commercial Operation
GEN-2007-025	300	Wind	Viola 345kV	Commercial Operation
GEN-2008-013	300	Wind	Hunter 345kV	Commercial Operation
GEN-2008-021	42	Nuclear	Wolf Creek 345kV	Commercial Operation
GEN-2008-098	100.8	Wind	Waverly 345kV	Commercial Operation
GEN-2009-025	59.8	Wind	Nardins 69kV	Commercial Operation
GEN-2010-003	100.8	Wind	Waverly 345kV	Commercial Operation
GEN-2010-005	299.2	Wind	Viola 345kV	Commercial Operation
GEN-2010-055	4.5	Gas	Wekiwa 138kV	Commercial Operation
GEN-2011-057	150.4	Wind	Creswell 138kV	Commercial Operation
GEN-2012-032	300	Wind	Open Sky 345kV	Commercial Operation
GEN-2012-033	98.1	Wind	Tap and Tie South 4th - Bunch Creek & Enid Tap - Fairmont (GEN-2012-033T) 138kV	Commercial Operation
GEN-2012-041	121.5	CT	Ranch Road 345kV	Commercial Operation
GEN-2013-012	147	Gas	Redbud 345kV	Commercial Operation
GEN-2013-028	559.5	Gas	Tap N Tulsa - GRDA 1 345kV	IA Executed/On Schedule for 2017 COD
GEN-2013-029	300	Wind	Renfrow 345kV	Commercial Operation
GEN-2014-001	200.6	Wind	Tap Wichita - Emporia Energy Center (GEN-2014-001 Tap) 345kV	IA Executed/On Schedule
GEN-2014-028	35	CC	Riverton 161kV	Commercial Operation
GEN-2014-064	248.4	Wind	Otter 138kV	IA Executed/On Suspension
GEN-2015-001	200	Wind	Ranch Road 345kV	Commercial Operation
GEN-2015-015	154.6	Wind	Tap Medford Tap - Coyote 138kV	Commercial Operation
GEN-2015-016	200	Wind	Tap Marmaton - Centerville 161kV	IA Executed/On schedule for 2018 COD
GEN-2015-024	220	Wind	Tap Thistle - Wichita 345kV Dbl CKT	Commercial Operation
GEN-2015-025	220	Wind	Tap Thistle - Wichita 345kV Dbl CKT	Commercial Operation
GEN-2015-030	200.1	Wind	Sooner 345kV	IA Executed/On Suspension
GEN-2015-034	200	Wind	Ranch Road 345kV	IA Executed/On schedule
GEN-2015-047	300	Wind	Sooner 345kV	Commercial Operation
GEN-2015-052	300	Wind	Tap Open Sky - Rose Hill 345kV	IA Pending
GEN-2015-062	4.5	Wind	Tap and Tie South 4th - Bunch Creek & Enid Tap - Fairmont (GEN-2012-033T) 138kV	Facility Study Stage
GEN-2015-063	300	Wind	Tap Woodring - Mathewson 345kV	Commercial Operation
GEN-2015-066	248.4	Wind	Tap Cleveland - Sooner 345kV	Facility Study Stage

Table 1: Generation Requests Included within ASIS

Project	MW	Fuel Source	POI	Status
GEN-2015-069	300	Wind	Union Ridge 230kV	IA Executed/On schedule
GEN-2015-073	200.1	Wind	Emporia Energy Center 345kV	Facility Study Stage
GEN-2015-083	125	Wind	Belle Plain 138kV	Facility Study Stage
GEN-2015-090	220	Wind	Tap Thistle - Wichita 345kV Dbl CKT	Facility Study Stage
GEN-2016-009	29	Thermal	Osage 69kV (514742)	Facility Study Stage
GEN-2016-022	151.8	Wind	Ranch Road 345kV (515576)	Facility Study Stage
GEN -2016-024	55.86	Wind	Midian 138kV (532990)	Facility Study Stage
GEN-2016-031	1.5MW uprate of GEN-2015- 001 (total = 201.3MW)	Wind	Ranch Road 345kV (515576)	Facility Study Stage
GEN-2016-032	200	Wind	Tap Marshall (514733)- Cottonwood Creek (514827) 138kV, (G16-032-TAP, 560077)	Facility Study Stage
GEN -2016-048	82.32	Solar	Sooner 138kV (514802)	Facility Study Stage
GEN-2016-060	25.3	Wind	Belle Plain 138kV (533063)	Facility Study Stage
GEN-2016-061	250.7	Wind	Tap Woodring (514715) – Sooner (514803) 345kV (G16- 061-TAP, 560084)	Facility Study Stage
GEN-2016-068	250	Wind	Woodring 345kV (514715)	Facility Study Stage
GEN-2016-071	200.1	Wind	Chilocco 138kV (521198)	Facility Study Stage
ASGI-2017-008	158.6	Wind	Remington - Schilder 138 kV	Current Study

This ASIS was required because the Affected System Interconnection Customer(s) are requesting interconnection at a location electrically close to the SPP system.

Table 2 below list the higher and current study queued required upgrade projects with associated requests have cost responsibility.

DISIS-2016-001-1 Group 08 Impact Study was posted December 22, 2017.

DISIS-2016-001-1 reports can be located at the following Generation Interconnection Study URL:
[http://sppoasis.spp.org/documents/swpp/transmission/studies/files/2016 Generation Studies/DISIS %202016-001-1_FINAL-R1.pdf](http://sppoasis.spp.org/documents/swpp/transmission/studies/files/2016%202016-001-1_FINAL-R1.pdf)

Table 2: Upgrade Projects Required for Interconnection Service

Upgrade Project	Type	Description	Status	Study Assignment
GEN-2015-063 Tap – Mathewson 345 kV CKT 1	Structure Replacements	Replace terminal equipment and structures to achieve conductor limit	IAs Executed	DISIS-2015-002-4 (ERIS/NRIS)
Farber – Belle Plains 138kV CKT 1	Rebuild	Rebuild approximately 10 miles of 138kV from Farber – Belle Plains	Facility Study	DISIS-2016-001-1 (ERIS/NRIS)
Osage – White Eagle (Included in Scenario 0)	Rebuild	Rebuild approximately 3 miles of 138kV from Osage to White Eagle	Assigned to SPP Higher Queued Impact Study	DISIS-2016-001-1 (ERIS/NRIS)
Osage – Webb Tap 138kV (Included in Scenario 0)	Rebuild	Rebuild approximately 22 miles of 138kV from Osage to Webb City	Assigned to SPP Higher Queued Impact Study	DISIS-2016-001-1 (ERIS/NRIS)
Webb Tap – Fairfax Tap 138kV	Rebuild	Rebuild approximately 0.3 miles of 138kV from Webb Tap – Fairfax Tap	Assigned to SPP Higher Queued Impact Study	DISIS-2016-001-1 (NRIS)
Fairfax Tap – Shidler 138kV	Rebuild	Rebuild approximately 2.4 miles of 138kV from Fairfax Tap - Shidler	Assigned to SPP Higher Queued Impact Study	DISIS-2016-001-1 (NRIS)
Collinsville (GRDA)* – Skiatook Tap (AECI/KAMO)** 138kV CKT 1	Rerate	Recent line rating update mitigates this study's observed constraints on Collinsville – Skiatook Tap	n/a	n/a
Remington - Fairfax 138kV CKT 1 (Included in Scenario 0)	Rebuild	Rebuild approximately 3.4 miles of 138kV	Assigned to AECI Higher Queued Impact Study Assignment	Assigned to ASGI-2017-005 (AECI-052) per AECI Impact Study
Remington (AECI/KAMO) – Shidler (AEP)* 138kV CKT 1 (Included in Scenario 0)	Rebuild	Rebuild approximately 8.6 miles of 138kV	Assigned to AECI Higher Queued Impact Study Assignment	Assigned to ASGI-2017-005 (AECI-052) per AECI Impact Study
Shidler – West Pawhuska – Pawhuska Tap – Domes – Mound Road – Bartlesville 138kV CKT 1* (Included in Scenario 0)	Rebuild	Rebuild approximately 45 miles of 138kV from Shidler – Bartlesville 138kV to achieve at least 161MVA Summer Peak Normal (Rate A) and 234 Summer Peak Emergency (Rate B)	Assigned to AECI Higher Queued Impact Study Assignment	Assigned to ASGI-2017-008 (AECI GIA-059) cost allocation of \$75,811,843
ASGI-2017-008 (GIA-059) Tap – Fairfax CKT 2	Build	build approximately 11 miles of 138kV	Assigned to Current Study Assignment	Assigned to ASGI-2017-008 (AECI GIA-059) per AECI Impact Study

Table 2: Upgrade Projects Required for Interconnection Service

Upgrade Project	Type	Description	Status	Study Assignment
Bartlesville Comanche – Bartlesville Southeast 138kV CKT 1*	Rebuild	Rebuild approximately 5 miles of 138kV from Mound Road – Bartlesville 138kV to achieve at least 170 Summer Peak Emergency (Rate B)	Current Study	ASGI-2017-008 (AECI GIA-057) cost allocation of \$5,000,000

* Upgrades denoted will require an SPP Affected System Facilities Study agreement and deposit. These upgrades could require the need for a Construction Agreement (CA) as a result of the Affected System Facilities Study.

** Upgrades denoted also require AECI review for AECI facility mitigations.

Any changes to these assumptions may require a re-study of this ASIS at the expense of the Customer(s).

Nothing in this System Impact Study constitutes a request for transmission service or grants the Interconnection Customer(s) any rights to transmission service.

FACILITIES

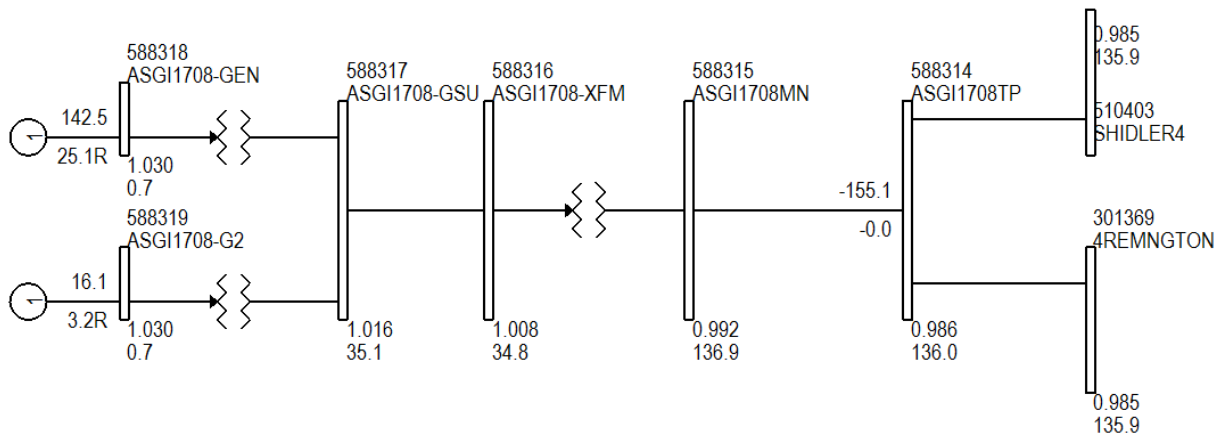
GENERATING FACILITY

The Affected System Interconnection Customers’ request the interconnection of fifty-seven (57) 2.5 MW General Electric (G.E.) and seven (7) 2.3 MW G.E. wind turbines for a total of 158.6 MW injection at the Point of Interconnection (POI) and associated facilities interconnecting to AECI at the Remington – Shidler 138 kV line in Osage County, OK.

INTERCONNECTION FACILITIES

The POI for ASGI-2017-008 Interconnection Customer connects to the Affected System the Remington – Shidler 138 kV line in Osage County, OK. **Figure 1** depicts the one-line diagram for the POI and the Interconnection Request(s).

Figure 1: Proposed ASGI-2017-008 Configuration and Request Power Flow Model



BASE CASE NETWORK UPGRADES

The Network Upgrades included within the cases used for this Affected System Impact Study are those facilities that are a part of the SPP Transmission Expansion Plan or the Balanced Portfolio projects. These facilities have an approved Notification to Construct (NTC), or are in construction stages and expected to be in-service at the effective time of this study. No other upgrades were included for this ASIS. If for some reason, construction on these projects is delayed or discontinued, a restudy may be needed to determine the interconnection service availability of the Customer(s).

POWER FLOW ANALYSIS

Power flow analysis is used to determine if the transmission system can accommodate the injection from the request without violating thermal or voltage transmission planning criteria.

MODEL PREPARATION

Power flow analysis was performed using modified versions of the 2015 series of 2016 ITP Near-Term study models including these seasonal models:

- Year 1 (2016) Winter Peak (16WP)
- Year 2 (2017) Spring (17G)
- Year 2 (2017) Summer Peak (17SP)
- Year 5 (2020) Light (20L)
- Year 5 (2020) Summer (20SP)
- Year 5 (2020) Winter (20WP) peak
- Year 10 (2025) Summer (25SP) peak

To incorporate the Interconnection Customers' request, a re-dispatch of existing generation within SPP and AECl was performed with respect to the amount of the Customers' injection.

For Variable Energy Resources (VER) (solar/wind) in each power flow case, ERIS, is evaluated for the generating plants within a geographical area of the interconnection request(s) for the VERs dispatched at 100% nameplate of maximum generation. The VERs in the remote areas is dispatched at 20% nameplate of maximum generation. SPP projects are dispatched across the SPP footprint using load factor ratios. AECl projects are dispatched across the AECl footprint using load factor ratios.

Peaking units are not dispatched in the Year 2 spring and Year 5 light, or in the "High VER" summer and winter peaks. To study peaking units' impacts, the Year 1 winter peak, Year 2 summer peak, and Year 5 summer and winter peaks, and Year 10 summer peak models are developed with peaking units dispatched at 100% of the nameplate rating and VERs dispatched at 20% of the nameplate rating. Each interconnection request is also modeled separately at 100% nameplate for certain analyses.

All generators (VER and peaking) that requested Network Resource Interconnection Service (NRIS) are dispatched in an additional analysis into the interconnecting Transmission Owner's (T.O.) area at 100% nameplate with Energy Resource Interconnection Service (ERIS) only requests at 80% nameplate. This method allows for identification of network constraints that are common between regional groupings to have affecting requests share the mitigating upgrade costs throughout the cluster.

For this ASIS, only the previous queued requests listed in **Table 1** were assumed to be in-service at 100% dispatch.

STUDY METHODOLOGY AND CRITERIA

THERMAL OVERLOADS

Network constraints are found by using PSS/E AC Contingency Calculation (ACCC) analysis with PSS/E MUST First Contingency Incremental Transfer Capability (FCITC) analysis on the entire cluster grouping dispatched at the various levels previously mentioned.

For ERIS, thermal overloads are determined for system intact (n-0) (greater than or equal to 100% of Rate A - normal) and for contingency (n-1) (greater than or equal to 100% of Rate B - emergency) conditions.

The overloads are then screened to determine which of generator interconnection requests have at least

- 3% Distribution Factor (DF) for system intact conditions (n-0),
- 20% DF upon outage based conditions (n-1),
- or 3% DF on contingent elements that resulted in a non-converged solution.

Interconnection Requests that requested NRIS are also studied in a separate NRIS analysis to determine if any constraint measured greater than or equal to a 3% DF. If so, these constraints are also considered for transmission reinforcement under NRIS.

The contingency set includes all SPP control area branches and ties 69kV and above, first tier Non-SPP control area branches and ties 115 kV and above, any defined contingencies for these control areas, and generation unit outages for the SPP control areas with SPP reserve share program redispatch.

The monitored elements include all SPP control area branches, ties, and buses 69 kV and above, and all first tier Non-SPP control area branches and ties 69 kV and above. NERC Power Transfer Distribution Flowgates for SPP and first tier Non-SPP control area are monitored. Additional NERC Flowgates are monitored in second tier or greater Non-SPP control areas. Voltage monitoring was performed for SPP control area buses 69 kV and above.

VOLTAGE

For non-converged power flow solutions that are determined to be caused by lack of voltage support, appropriate transmission support will be determined to mitigate the constraint.

After all thermal overload and voltage support mitigations are determined; a full ACCC analysis is then performed to determine voltage constraints. The following voltage performance guidelines are used in accordance with the Transmission Owner local planning criteria.

SPP Areas (69kV+):

Transmission Owner	Voltage Criteria (System Intact)	Voltage Criteria (Contingency)
AEPW	0.95 – 1.05 pu	0.92 – 1.05 pu
GRDA	0.95 – 1.05 pu	0.90 – 1.05 pu
SWPA	0.95 – 1.05 pu	0.90 – 1.05 pu
OKGE	0.95 – 1.05 pu	0.90 – 1.05 pu
OMPA	0.95 – 1.05 pu	0.90 – 1.05 pu
WFEC	0.95 – 1.05 pu	0.90 – 1.05 pu
SWPS	0.95 – 1.05 pu	0.90 – 1.05 pu
MIDW	0.95 – 1.05 pu	0.90 – 1.05 pu
SUNC	0.95 – 1.05 pu	0.90 – 1.05 pu
KCPL	0.95 – 1.05 pu	0.90 – 1.05 pu
INDN	0.95 – 1.05 pu	0.90 – 1.05 pu
SPRM	0.95 – 1.05 pu	0.90 – 1.05 pu
NPPD	0.95 – 1.05 pu	0.90 – 1.05 pu
WAPA	0.95 – 1.05 pu	0.90 – 1.05 pu
WERE L-V	0.95 – 1.05 pu	0.93 – 1.05 pu
WERE H-V	0.95 – 1.05 pu	0.95 – 1.05 pu
EMDE L-V	0.95 – 1.05 pu	0.90 – 1.05 pu
EMDE H-V	0.95 – 1.05 pu	0.92 – 1.05 pu
LES	0.95 – 1.05 pu	0.90 – 1.05 pu
OPPD	0.95 – 1.05 pu	0.90 – 1.05 pu

SPP Buses with more stringent voltage criteria:

Bus Name/Number	Voltage Criteria (System Intact)	Voltage Criteria (Contingency)
TUCO 230kV 525830	0.925 – 1.05 pu	0.925 – 1.05 pu
Wolf Creek 345kV 532797	0.985 – 1.03 pu	0.985 – 1.03 pu
FCS 646251	1.001 – 1.047 pu	1.001 – 1.047 pu

Affected System Areas (115kV+):

Transmission Owner	Voltage Criteria (System Intact)	Voltage Criteria (Contingency)
AECI	0.95 – 1.05 pu	0.90 – 1.05 pu
EES-EAI	0.95 – 1.05 pu	0.90 – 1.05 pu
LAGN	0.95 – 1.05 pu	0.90 – 1.05 pu
EES	0.95 – 1.05 pu	0.90 – 1.05 pu
AMMO	0.95 – 1.05 pu	0.90 – 1.05 pu
CLEC	0.95 – 1.05 pu	0.90 – 1.05 pu
LAFA	0.95 – 1.05 pu	0.90 – 1.05 pu
LEPA	0.95 – 1.05 pu	0.90 – 1.05 pu
XEL	0.95 – 1.05 pu	0.90 – 1.05 pu
MP	0.95 – 1.05 pu	0.90 – 1.05 pu
SMMPA	0.95 – 1.05 pu	0.90 – 1.05 pu
GRE	0.95 – 1.05 pu	0.90 – 1.10 pu
OTP	0.95 – 1.05 pu	0.90 – 1.05 pu
OTP-H (115kV+)	0.97 – 1.05 pu	0.92 – 1.10 pu
ALTW	0.95 – 1.05 pu	0.90 – 1.05 pu
MEC	0.95 – 1.05 pu	0.90 – 1.05 pu
MDU	0.95 – 1.05 pu	0.90 – 1.05 pu
SPC	0.95 – 1.05 pu	0.95 – 1.05 pu
DPC	0.95 – 1.05 pu	0.90 – 1.05 pu
ALTE	0.95 – 1.05 pu	0.90 – 1.05 pu

The constraints identified through the voltage scan are then screened for the following for each interconnection request. 1) 3% DF on the contingent element and 2) 2% change in pu voltage. In certain conditions, engineering judgement was used to determine whether or not a generator had impacts to voltage constraints.

RESULTS

The ASIS ACCC analysis indicates that the Affected System Interconnection Customer(s) can interconnect their generation into the AECI transmission system at the available MW listed in the results tables after all required upgrades listed within the DISIS-2016-001 studies or latest iteration can be placed into service. ACCC results in **Table 6**, **Table 7**, and **Table 8** are dependent on higher queued SPP and AECI upgrades. Incremental SPP upgrades assigned to ASGI-2017-008 can be identified within **Table 2**.

Constraints listed in **Table 8** do not require additional transmission reinforcement for Interconnection Service, but could require Interconnection Customer to reduce generation in operational conditions. These transmission constraints occur when this study's generation is dispatched into the AECI footprint for ERIS and NRIS.

CURTAILMENT AND SYSTEM RELIABILITY

In no way does this study guarantee operation for all periods of time. It should be noted that although this study analyzed many of the most probable contingencies, it is not an all-inclusive list and cannot account for every operational situation. Because of this, it is likely that the Customer(s) may be required to reduce their generation output to **0 MW** under certain system conditions to allow system operators to maintain the reliability of the transmission network.

STABILITY ANALYSIS

Transient stability analysis is used to determine if the transmission system can maintain angular stability and ensure bus voltages stay within planning criteria bandwidth during and after a disturbance while considering the addition of a generator interconnection request.

MODEL PREPARATION

Transient stability analysis was performed using modified versions of the 2015 series of Model Development Working Group (MDWG) dynamic study models including the 2016 winter, 2017 and 2025 summer peak dynamic cases. The cases were adapted to resemble the power flow study cases with regards to prior queued generation requests and topology. Finally the prior queued and study generation was dispatched into the SPP footprint. Initial simulations are then carried out for a no-disturbance run of twenty (20) seconds to verify the numerical stability of the model.

DISTURBANCES

The thirty-seven (37) contingencies were identified for use in this ASIS. These faults are listed within **Table 3**. These contingencies included three-phase faults and single-phase line faults at locations defined by SPP. Single-phase line faults were simulated by applying fault impedance to the positive sequence network at the fault location to represent the effect of the negative and zero sequence networks on the positive sequence network. The fault impedance was computed to give a positive sequence voltage at the specified fault location of approximately 60% of pre-fault voltage. This method is in agreement with SPP current practice.

With the exception of transformers, the typical sequence of events for a three-phase and single-phase fault is as follows:

1. apply fault at particular location
2. continue fault for five (5) cycles, clear the fault by tripping the faulted facility
3. run for an additional twenty (20) cycles, reclose into fault
4. continue fault for five (5) cycles, clear the fault by tripping the faulted facility

Transformer faults are typically modeled as three-phase faults, unless otherwise noted. The sequence of events for a transformer fault is as follows:

1. apply fault for five (5) cycles
2. clear the fault by tripping the affected transformer facility (unless otherwise noted there will be no re-closing into a transformer fault)

Table 3: Contingencies Evaluated

Contingency Number and Name		Description
1	FLT_01_ASGI1708TP_4REMINGTON_138kV_3PH	Fault on the ASGI1708TP (588314) to Remington (301369) 138kV line, near ASGI1708TP. a. Apply fault at the ASGI1708TP 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
2	FLT_02_ASGI1708TP_SHILDER4_138kV_3PH	Fault on the ASGI1708TP (588314) to Shidler (510403) 138kV line, near ASGI1708TP. a. Apply fault at the ASGI1708TP 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
3	FLT_03_4REMINGTON_4FAIRFAX_138kV_3PH	Fault on the Remington (301369) to Fairfax (300139) 138kV line, near Remington. a. Apply fault at the Remington 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
4	FLT_04_4FAIRFAX_2FAIRFAX_138_69kV_3PH	Fault on the Fairfax (300139) 138V to (300929) 69kV transformer circuit 1, near Fairfax 138kV. a. Apply fault at the Fairfax 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line.
5	FLT_05_4FAIRFAX_PAWNSW4_138kV_3PH	Fault on the Fairfax (300139) to Pawnee SW (512749) 138kV line, near Fairfax. a. Apply fault at the Fairfax 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
6	FLT_06_SHILDER4_FAIRFXT4_138kV_3PH	Fault on the Shidler (510403) to Fairfax Tap (510377) 138kV line, near Shidler. a. Apply fault at the Shidler 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
7	FLT_07_SHILDER4_WPAWTHSK4_138kV_3PH	Fault on the Shidler (510403) to West Pawhuska (510382) 138kV line, near Shidler. a. Apply fault at the Shidler 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.

Contingency Number and Name		Description
8	FLT_08_WEBBTAP4_OSAGE4_138kV_3PH	Fault on the Webber Tap (510376) to Osage (514743) 138kV line, near Webber Tap. a. Apply fault at the Webber Tap 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
9	FLT_09_PAWHTP4_DOMES4_138kV_3PH	Fault on the Pawhuska Tap (510412) to Dome (510383) 138kV line, near Pawhuska Tap. a. Apply fault at the Pawhuska Tap 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
10	FLT_10_2FAIRFAX_2GETTYTAP_69kV_3PH	Fault on the Fairfax (300929) to Getty Tap (512758) 69kV line, near Fairfax. a. Apply fault at the Fairfax 69kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
11	FLT_11_2FAIRFAX_2NAVLRES_69kV_3PH	Fault on the Fairfax (300929) to Naval Reserve (300937) 69kV line, near Fairfax. a. Apply fault at the Fairfax 69kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
12	FLT_12_PAWNSW4_4CLEVLND_138kV_3PH	Fault on the Pawnee SW (512749) to Cleveland (300138) 138kV line, near Pawnee SW. a. Apply fault at the Pawnee SW 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
13	FLT_13_PAWNSW4_4GLENCOE_138kV_3PH	Fault on the Pawnee SW (512749) to Glencoe (301425) 138kV line, near Pawnee SW. a. Apply fault at the Pawnee SW 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
14	FLT_14_4CLEVLND_4JAVINE_138kV_3PH	Fault on the Cleveland (300138) to Javine (300996) 138kV line, near Cleveland. a. Apply fault at the Cleveland 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.

Contingency Number and Name		Description
15	FLT_15_4CLEVLND_4CLEVLANDXFMR_138kV_3PH	Fault on the Cleveland (300138) to Cleveland XFMR (301429) 138kV line, near Cleveland. a. Apply fault at the Cleveland 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
16	FLT_16_4CLEVLND_CLEVLND4_138kV_3PH	Fault on the Cleveland (300138) to GRDA Cleveland (512729) 138kV line, near Cleveland. a. Apply fault at the Cleveland 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
17	FLT_17_4CLEVLND_4SILVCTY_138kV_3PH	Fault on the Cleveland (300138) to Silver City (300140) 138kV line, near Cleveland. a. Apply fault at the Cleveland 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
18	FLT_18_4SFORKKTP_4SFORKK_138kV_3PH	Fault on the South Fork Tap (301339) to South Fork (300165) 138kV line, near South Fork Tap. a. Apply fault at the Fork Tap 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
19	FLT_19_MOUNDRD4_BVCOM4_138kV_3PH	Fault on the Mound Road (510395) to Bartlesville Comanche (510390) 138kV line, near Mound Road. a. Apply fault at the Mound Road 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
20	FLT_20_OSAGE4_SNRPMPT4_138kV_3PH	Fault on the Osage (514743) to Sooner Pump Tap (514798) 138kV line, near Osage. a. Apply fault at the Osage 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
21	FLT_21_OSAGE4_MARLNDT4_138kV_3PH	Fault on the Osage (514743) to Marland Tap (514770) 138kV line, near Osage. a. Apply fault at the Osage 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.

Contingency Number and Name		Description
22	FLT_22_OSAGE4_STDBEAR4_138kV_3PH	Fault on the Osage (514743) to Standing Bear (514758) 138kV line, near Osage. a. Apply fault at the Osage 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
23	FLT_23_OSAGE4_WHEAGLE4_138kV_3PH	Fault on the Osage (514743) to White Eagle (514761) 138kV line, near Osage. a. Apply fault at the Osage 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
24	FLT_24_4STILWTR_4RAMSEY_138kV_3PH	Fault on the Stillwater (300141) to Ramsey (300844) 138kV line, near Stillwater. a. Apply fault at the Stillwater 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
25	FLT_25_4STILWTR_NORTHTP4_138kV_3PH	Fault on the Stillwater (300141) to North Tap (512731) 138kV line, near Stillwater. a. Apply fault at the Stillwater 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
26	FLT_26_OSAGE4_OSGE2_138_69kV_3PH	Fault on the Osage (514743) 138kV to (514742) 69kV transformer circuit 1, near Osage 138kV. a. Apply fault at the Osage 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line.
27	FLT_27_4STILWTR_2WILLIAMS_138_69kV_3PH	Fault on the Stillwater (300141) 138kV to Williams (301413) 69kV transformer circuit 1, near Stillwater 138kV. a. Apply fault at the Stillwater 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line.
28	FLT_28_TNO4_SKIATOK4_138kV_3PH	Fault on the Tulsa North (509817) to Skiatook Tap (509884) 138kV line, near Tulsa North. a. Apply fault at the Tulsa North 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
29	FLT_29_TNO4_NES4_138kV_3PH	Fault on the Tulsa North (509817) to Northeastern (510396) 138kV line, near Tulsa North. a. Apply fault at the Tulsa North 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.

Contingency Number and Name		Description
30	FLT_30_4FAIRFAX_4REMINGTONPO_138kV_3PH	<p>Prior outage on the Fairfax Tap (300139) to Pawnee Switch (512749) 138kV line: Fault on the Fairfax (300139) to Remington (301369) 138kV line, near Fairfax.</p> <p>a. Apply fault at the Fairfax 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.</p>
31	FLT_31_PAWNSW4_4FAIRFAXSB_138kV_1PH	<p>Single phase fault with stuck breaker on the Pawnee SW (512749) to Fairfax (300139) 138kV line, near Pawnee SW.</p> <p>a. Apply fault at the Pawnee SW 138kV bus. b. At 16 cycles, clear the fault, open the faulted line, and open the Pawnee SW (512749) to Cleveland (300138) 138kV line.</p>
32	FLT_32_SHILDER4_ASGI1708TP_SB_138kV_1PH	<p>Single phase fault with stuck breaker on the Shidler (510403) to ASGI1708TP (588314) 138kV line, near Shidler.</p> <p>a. Apply fault at the Shidler 138kV bus. b. At 16 cycles, clear the fault, open the faulted line, and open the Shidler (510403) to Fairfax (300139) 138kV line.</p>
33	FLT_33_ASGI1708TP_SHILDER4PO_138kV_3PH	<p>Prior outage on the Pawnee SW (512749) to Glencoe (301425) 138kV line: Fault on the ASGI1708TP (588314) to Shidler (510403) 138kV line, near ASGI1708TP.</p> <p>a. Apply fault at the ASGI1708TP 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.</p>
34	FLT_34_ASGI1708TP_SHILDER4PO_138kV_3PH	<p>Prior outage on the Pawnee SW (512749) to Cleveland (300138) 138kV line: Fault on the ASGI1708TP (588314) to Shidler (510403) 138kV line, near ASGI1708TP.</p> <p>a. Apply fault at the ASGI1708TP 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.</p>
35	FLT_35_4FAIRFAX_PAWNSW4PO_138kV_3PH	<p>Prior outage on the Shidler (510403) to Fairfax Tap (510377) 138kV line: Fault on the Fairfax (300139) to Pawnee SW (512749) 138kV line, near Fairfax.</p> <p>a. Apply fault at the Fairfax 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.</p>

Contingency Number and Name		Description
36	FLT_36_4FAIRFAX_PAWNSW4PO_138kV_3PH	<p>Prior outage on the Shidler (510403) to West Pawhuska (510382) 138kV line: Fault on the Fairfax (300139) to Pawnee SW (512749) 138kV line, near Fairfax.</p> <p>a. Apply fault at the Fairfax 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.</p>
37	FLT_37_4FAIRFAX_4REMINGTONSB_138kV_1PH	<p>Single phase fault with stuck breaker on the Fairfax (300139) to Remington (301369) 138kV line, near Fairfax.</p> <p>a. Apply fault at the Fairfax 138kV bus. b. At 16 cycles, clear the fault, open the faulted line, and open the Fairfax 138kV/69kV transformer.</p>

RESULTS

Results of the stability analysis are summarized in **Table 4**. These results are valid for ASGI-2017-008 interconnecting with a generation amount up to 158.6 MW. Unstable responses for prior outage Fault #34 can be mitigated with curtailing ASGI-2017-008 to 79MWs.

Table 4: Fault Results

Contingency Number and Name		2016WP	2017SP	2025SP
1	FLT_01_ASGI1708TP_4REMLINGTON_138kV_3PH	STABLE	STABLE	STABLE
2	FLT_02_ASGI1708TP_SHILDER4_138kV_3PH	STABLE	STABLE	STABLE
3	FLT_03_4REMLINGTON_4FAIRFAX_138kV_3PH	STABLE	STABLE	STABLE
4	FLT_04_4FAIRFAX_2FAIRFAX_138_69kV_3PH	STABLE	STABLE	STABLE
5	FLT_05_4FAIRFAX_PAWNSW4_138kV_3PH	STABLE	STABLE	STABLE
6	FLT_06_SHILDER4_FAIRFXT4_138kV_3PH	STABLE	STABLE	STABLE
7	FLT_07_SHILDER4_WPAWTHSK4_138kV_3PH	STABLE	STABLE	STABLE
8	FLT_08_WEBBTAP4_OSAGE4_138kV_3PH	STABLE	STABLE	STABLE
9	FLT_09_PAWHTP4_DOMES4_138kV_3PH	STABLE	STABLE	STABLE
10	FLT_10_2FAIRFAX_2GETTYTAP_69kV_3PH	STABLE	STABLE	STABLE
11	FLT_11_2FAIRFAX_2NAVLRES_69kV_3PH	STABLE	STABLE	STABLE
12	FLT_12_PAWNSW4_4CLEVLND_138kV_3PH	STABLE	STABLE	STABLE
13	FLT_13_PAWNSW4_4GLENCOE_138kV_3PH	STABLE	STABLE	STABLE
14	FLT_14_4CLEVLND_4JAVINE_138kV_3PH	STABLE	STABLE	STABLE
15	FLT_15_4CLEVLND_4CLEVLNDXFMR_138kV_3PH	STABLE	STABLE	STABLE
16	FLT_16_4CLEVLND_CLEVLND4_138kV_3PH	STABLE	STABLE	STABLE
17	FLT_17_4CLEVLND_4SILVCTY_138kV_3PH	STABLE	STABLE	STABLE
18	FLT_18_4SFORKKTP_4SFORKK_138kV_3PH	STABLE	STABLE	STABLE
19	FLT_19_MOUNDRD4_BVCOM4_138kV_3PH	STABLE	STABLE	STABLE
20	FLT_20_OSAGE4_SNRPMPT4_138kV_3PH	STABLE	STABLE	STABLE
21	FLT_21_OSAGE4_MARLNDT4_138kV_3PH	STABLE	STABLE	STABLE
22	FLT_22_OSAGE4_STDBEAR4_138kV_3PH	STABLE	STABLE	STABLE
23	FLT_23_OSAGE4_WHEAGLE4_138kV_3PH	STABLE	STABLE	STABLE
24	FLT_24_4STILWTR_4RAMSEY_138kV_3PH	STABLE	STABLE	STABLE
25	FLT_25_4STILWTR_NORTHTP4_138kV_3PH	STABLE	STABLE	STABLE
26	FLT_26_OSAGE4_OSAGE2_138_69kV_3PH	STABLE	STABLE	STABLE
27	FLT_27_4STILWTR_2WILLIAMS_138_69kV_3PH	STABLE	STABLE	STABLE
28	FLT_28_TNO4_SKIATOK4_138kV_3PH	STABLE	STABLE	STABLE
29	FLT_29_TNO4_NES4_138kV_3PH	STABLE	STABLE	STABLE
30	FLT_30_4FAIRFAX_4REMLINGTONPO_138kV_3PH	STABLE	STABLE	STABLE
31	FLT_31_PAWNSW4_4FAIRFAXSB_138kV_1PH	STABLE	STABLE	STABLE
32	FLT_32_SHILDER4_ASGI1708TP_SB_138kV_1PH	STABLE	STABLE	STABLE
33	FLT_33_ASGI1708TP_SHILDER4PO_138kV_3PH	STABLE	STABLE	STABLE
34	FLT_34_ASGI1708TP_SHILDER4PO_138kV_3PH	UNSTABLE	UNSTABLE	UNSTABLE
35	FLT_35_4FAIRFAX_PAWNSW4PO_138kV_3PH	STABLE	STABLE	STABLE
36	FLT_36_4FAIRFAX_PAWNSW4PO_138kV_3PH	STABLE	STABLE	STABLE
37	FLT_37_4FAIRFAX_4REMLINGTONSB_138kV_1PH	STABLE	STABLE	STABLE

FERC LVRT COMPLIANCE

FERC Order #661A places specific requirements on wind farms through its Low Voltage Ride Through (LVRT) provisions. For Interconnection Agreements signed after December 31, 2006, wind farms shall stay on line for faults at the POI that draw the voltage down at the POI to 0.0 pu.

Fault contingencies were developed to verify that wind farms remain on line when the POI voltage is drawn down to 0.0 pu. These contingencies are shown in **Table 5**.

Table 5: LVRT Contingencies

Contingency Number and Name		Description
1	FLT_01_ASGI1708TP_4REMINGTON_138kV_3PH	Fault on the ASGI1708TP (588314) to Remington (301369) 138kV line, near ASGI1708TP. a. Apply fault at the ASGI1708TP 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.
2	FLT_02_ASGI1708TP_SHILDER4_138kV_3PH	Fault on the ASGI1708TP (588314) to Shidler (510403) 138kV line, near ASGI1708TP. a. Apply fault at the ASGI1708TP 138kV bus. b. Clear fault after 5 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave fault on for 5 cycles, then trip the line in (b) and remove fault.

The required prior queued project wind farms remained online for the fault contingencies described in this section as well as the fault contingencies described in the Disturbances section of this report. ASGI-2017-008 is found to be in compliance with FERC Order #661A.

SHORT CIRCUIT ANALYSIS

A short circuit analysis was performed on the 2017 & 2025 Summer Peak power flow cases using the PSS/E ASCC program. Since the power flow model does not contain negative and zero sequence data, only three-phase symmetrical fault current levels were calculated at the point of interconnection up to and including five levels away. The results of the short circuit analysis are shown on the next page.

ASGI-2017-008 Short Circuit Analysis Results (2017SP)

PSS@E ASCC SHORT CIRCUIT CURRENTS WED, OCT 04 2017 11:14
 2015 MDWG FINAL WITH 2013 MMWG, UPDATED WITH 2014 SERC & MRO
 MDWG 17S WITH MMWG 15S, MRO 16W TOPO/16S PROF, SERC 16S

OPTIONS USED:

- FLAT CONDITIONS
- BUS VOLTAGES SET TO 1 PU AT 0 PHASE ANGLE
- GENERATOR P=0, Q=0
- TRANSFORMER TAP RATIOS=1.0 PU and PHASE ANGLES=0.0
- LINE CHARGING=0.0 IN +/-0 SEQUENCE
- LOAD=0.0 IN +/- SEQUENCE, CONSIDERED IN ZERO SEQUENCE
- LINE/FIXED/SWITCHED SHUNTS=0.0 AND MAGNETIZING ADMITTANCE=0.0 IN +/-0 SEQUENCE
- DC LINES AND FACTS DEVICES BLOCKED
- TRANSFORMER ZERO SEQUENCE IMPEDANCE CORRECTIONS IGNORED

THREE PHASE FAULT

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X----- BUS -----X   /I+/ AN(I+)
588314 [ASGI1708TP 138.00] AMP 10918.4 -81.53
301369 [4REMNGTON 138.00] AMP 11695.2 -82.33
510403 [SHIDLER4 138.00] AMP 10346.6 -80.50
588315 [ASGI1708MN 138.00] AMP 7212.1 -81.99
300139 [4FAIRFAX 138.00] AMP 10697.2 -82.77
300919 [4RALSTNBND 138.00] AMP 3587.7 -80.84
300922 [2BURBANK 138.00] AMP 6000.2 -81.29
301379 [4OSAGEWIND 138.00] AMP 10029.6 -81.95
510377 [FAIRFXT4 138.00] AMP 9462.9 -79.46
510382 [WPAWHSK4 138.00] AMP 6167.3 -77.64
510388 [BARNAL4 138.00] AMP 8330.3 -81.39
588300 [ASGI1705 138.00] AMP 7116.0 -82.73
300929 [2FAIRFAX 69.000] AMP 10425.0 -83.58
509884 [SKIATOK4 138.00] AMP 11087.4 -81.53
510376 [WEBBTAP4 138.00] AMP 9365.1 -79.34
510412 [PAWH-TP4 138.00] AMP 6092.4 -77.88
510433 [BARNPMP4 138.00] AMP 7767.2 -81.06
512749 [PAWNSW4 138.00] AMP 11016.0 -84.06
588320 [ASGI1709 138.00] AMP 7214.6 -82.95
300138 [4CLEVLND 138.00] AMP 17133.7 -85.49
300937 [2NAVLRES 69.000] AMP 4453.5 -70.19
301425 [4GLENCOE 138.00] AMP 10380.4 -83.03
509817 [T.NO.--4 138.00] AMP 34848.0 -84.86
510383 [DOMES 4 138.00] AMP 6465.1 -78.61
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510395 [MOUNDRD4 138.00] AMP 9603.5 -79.28
510432 [SHIDWFC4 138.00] AMP 6226.2 -75.94
510434 [HERITAGETRL4138.00] AMP 4396.3 -76.95
512758 [2GETTYTAP 69.000] AMP 5117.7 -81.97
514743 [OSAGE 4 138.00] AMP 16720.2 -81.46
300140 [4SILVCTY 138.00] AMP 15889.3 -82.22
300141 [4STILWTR 138.00] AMP 13857.8 -81.42
300644 [2GETTY 69.000] AMP 4989.6 -81.61
300939 [2PAWNEE 69.000] AMP 4242.3 -79.75
300940 [2PAWYA 69.000] AMP 3249.1 -67.98
300996 [4JAVINE 138.00] AMP 6580.3 -82.60
301429 [4CLEVLNDXFMR138.00] AMP 17133.7 -85.49
509837 [46ST--E4 138.00] AMP 14106.7 -78.36
509839 [CDC-ET 4 138.00] AMP 18636.1 -79.86
509842 [CDC-WT 4 138.00] AMP 19388.7 -84.17
509844 [OWASOTP4 138.00] AMP 14980.1 -79.79
509851 [P&P WTP4 138.00] AMP 14963.9 -82.08
509863 [PPTAP 4 138.00] AMP 10317.2 -83.75
509895 [T.NO.2-4 138.00] AMP 34775.7 -84.96
510375 [WEBBCTY4 138.00] AMP 4657.1 -74.25
510390 [BV-COM-4 138.00] AMP 10425.4 -80.48
510396 [N.E.S.-4 138.00] AMP 35662.8 -84.97
512729 [CLEVLND 4 138.00] AMP 17130.0 -85.50
514742 [OSGE 2 69.000] AMP 15783.4 -84.42
514758 [STDBEAR4 138.00] AMP 14009.0 -81.41
514761 [WHEAGLE4 138.00] AMP 15953.7 -81.44
514770 [MARLNDT4 138.00] AMP 10976.9 -76.58
514798 [SNRPMPT4 138.00] AMP 20620.0 -85.47
529308 [OMPWHSK4 138.00] AMP 4159.1 -76.82

Short Circuit Analysis Results (2025SP)

PSS@E ASCC SHORT CIRCUIT CURRENTS WED, OCT 04 2017 11:15
 2015 MDWG FINAL WITH 2013 MMWG, UPDATED WITH 2014 SERC & MRO
 MDWG 2025S WITH MMWG 2024S, MRO & SERC 2025 SUMMER

OPTIONS USED:

- FLAT CONDITIONS
- BUS VOLTAGES SET TO 1 PU AT 0 PHASE ANGLE
- GENERATOR P=0, Q=0
- TRANSFORMER TAP RATIOS=1.0 PU and PHASE ANGLES=0.0
- LINE CHARGING=0.0 IN +/-0 SEQUENCE
- LOAD=0.0 IN +/- SEQUENCE, CONSIDERED IN ZERO SEQUENCE
- LINE/FIXED/SWITCHED SHUNTS=0.0 AND MAGNETIZING ADMITTANCE=0.0 IN +/-0 SEQUENCE
- DC LINES AND FACTS DEVICES BLOCKED
- TRANSFORMER ZERO SEQUENCE IMPEDANCE CORRECTIONS IGNORED

THREE PHASE FAULT

X----- BUS -----X /I+/ AN(I+)

588314	[ASGI1708TP 138.00]	AMP	11005.2	-81.54
301369	[4REMNGTON 138.00]	AMP	11769.4	-82.34
510403	[SHIDLER4 138.00]	AMP	10451.1	-80.51
588315	[ASGI1708MN 138.00]	AMP	7247.0	-82.00
300139	[4FAIRFAX 138.00]	AMP	10730.7	-82.77
300919	[4RALSTNBND 138.00]	AMP	3594.7	-80.84
300922	[2BURBANK 138.00]	AMP	6019.7	-81.29
301379	[4OSAGEWIND 138.00]	AMP	10083.0	-81.95
510377	[FAIRFXT4 138.00]	AMP	9555.0	-79.46
510382	[WPAWHSK4 138.00]	AMP	6290.4	-77.82
510388	[BARNAL4 138.00]	AMP	8366.9	-81.42
588300	[ASGI1705 138.00]	AMP	7137.5	-82.74
300929	[2FAIRFAX 69.000]	AMP	10439.1	-83.58
509884	[SKIATOK4 138.00]	AMP	11114.5	-81.53
510376	[WEBBTAP4 138.00]	AMP	9456.1	-79.34
510412	[PAWH-TP4 138.00]	AMP	6262.9	-78.18
510433	[BARNPMP4 138.00]	AMP	7806.3	-81.09
512749	[PAWNSW4 138.00]	AMP	11040.3	-84.07
588320	[ASGI1709 138.00]	AMP	7225.8	-82.95
300138	[4CLEVLND 138.00]	AMP	17174.4	-85.49
300937	[2NAVLRES 69.000]	AMP	4455.7	-70.18
301425	[4GLENCOE 138.00]	AMP	10410.5	-83.07
509817	[T.NO.--4 138.00]	AMP	35026.7	-84.86
510383	[DOMES 4 138.00]	AMP	6596.5	-78.79
510395	[MOUNDRD4 138.00]	AMP	9719.1	-79.37
510432	[SHIDWFC4 138.00]	AMP	6266.2	-75.92
510434	[HERITAGETRL4138.00]	AMP	4561.4	-77.40
512758	[2GETTYTAP 69.000]	AMP	5120.6	-81.97
514743	[OSAGE 4 138.00]	AMP	17611.0	-81.73
300140	[4SILVCTY 138.00]	AMP	15967.5	-82.23
300141	[4STILWTR 138.00]	AMP	13924.1	-81.50
300644	[2GETTY 69.000]	AMP	4992.3	-81.61

300939 [2PAWNEE 69.000] AMP 4244.1 -79.75
300940 [2PAWYA 69.000] AMP 3250.0 -67.98
300996 [4JAVINE 138.00] AMP 6586.4 -82.60
301429 [4CLEVLNDXFMR138.00] AMP 17174.4 -85.49
509837 [46ST--E4 138.00] AMP 14136.1 -78.34
509839 [CDC-ET 4 138.00] AMP 18688.5 -79.84
509842 [CDC-WT 4 138.00] AMP 19445.1 -84.17
509844 [OWASOTP4 138.00] AMP 15007.9 -79.78
509851 [P&P WTP4 138.00] AMP 15007.1 -82.07
509863 [PPTAP 4 138.00] AMP 10333.6 -83.75
509895 [T.NO.2-4 138.00] AMP 34953.3 -84.95
510375 [WEBBCTY4 138.00] AMP 4679.4 -74.23
510390 [BV-COM-4 138.00] AMP 10539.9 -80.54
510396 [N.E.S.-4 138.00] AMP 35788.0 -84.96
512729 [CLEVLND 4 138.00] AMP 17170.7 -85.50
514742 [OSGE 2 69.000] AMP 18660.2 -84.60
514758 [STDBEAR4 138.00] AMP 14584.4 -81.58
514761 [WHEAGLE4 138.00] AMP 16592.9 -81.55
514770 [MARLNDT4 138.00] AMP 11299.6 -76.57
514798 [SNRPMPT4 138.00] AMP 20887.4 -85.52
529308 [OMPWHK4 138.00] AMP 4323.7 -77.30

CONCLUSION

An Affected System Interconnection Customer has requested an Affected System Impact Study (ASIS) under the Southwest Power Pool Open Access Transmission Tariff (OATT) for ASGI-2017-008. ASGI-2017-008 (158.6 MW) wind generating facilities is to be interconnected into the system of AECL. ASGI-2017-008 has requested this ASIS to determine the impacts of interconnecting to the transmission system with all required Network Upgrades identified in the DISIS-2016-001 Impact Study placed into service.

The ASIS analysis has determined that the ASGI-2017-008 request can interconnect 158.6 MW of generation with ERIS and NRIS with the study dispatch assumption listed in **Table 1** provided the Network Upgrades listed in **Table 2** are able to be placed in service.

It should be noted that although this ASIS analyzed many of the most probable contingencies, it is not an all-inclusive list that can account for every operational situation. Additionally, the generator may not be able to inject any power onto the Transmission System due to constraints that fall below the threshold of mitigation for a Generator Interconnection request. Because of this, it is likely that the Customer(s) may be required to reduce their generation output to **0 MW** under certain system conditions to allow system operators to maintain the reliability of the transmission network.

Transient stability analysis for this ASIS has determined that issues were observed as listed in **Table 4** for the transmission system for the thirty-seven (37) selected faults for the interconnection of ASGI-2017-008 and the analysis shows that the generators will meet Low Voltage Ride-Through (LVRT) requirements of FERC Order #661A. As discussed above, this amount may be reduced further dependent upon system conditions.

Any changes to these assumptions, for example, one or more of the previously queued requests not included within this study execute an interconnection agreement and commencing commercial operation, may require a re-study of this ASIS at the expense of the Customer.

Nothing in this System Impact Study constitutes a request for transmission service or confers upon the Interconnection Customer any right to receive transmission service.

THERMAL AND STEADY STATE VOLTAGE CONSTRAINTS TABLES

Table 6: Thermal Constraints Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	20L	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	1	144.5519	4REMNGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	1	143.5319	4REMNGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	1	143.4417	4REMNGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	1	143.3367	4REMNGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	1	142.9966	4REMNGTON 138.00 - FAIRFAX 138KV CKT 1
08NR	0	20L	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	1	133.4909	4REMNGTON 138.00 - FAIRFAX 138KV CKT 1
08NR	0	17G	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	1	132.6722	4REMNGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	354	354	1	129.0771	4REMNGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	354	354	1	129.0492	4REMNGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	0.83723	103.7436	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	0.83723	103.7436	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
00NR	0	20SP	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	1	103.0018	4REMNGTON 138.00 - FAIRFAX 138KV CKT 1
00NR	0	17SP	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	1	102.9598	4REMNGTON 138.00 - FAIRFAX 138KV CKT 1
00NR	0	25SP	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	1	102.9303	4REMNGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	0.83632	102.4587	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	0.83653	100.75	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	0.83653	100.75	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	BARTLESVILLE COMANCHE - BARTLESVILLE SOUTHEAST 138KV CKT 1	153	153	0.22876	110.7815	4REMNGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	BARTLESVILLE COMANCHE - BARTLESVILLE SOUTHEAST 138KV CKT 1	153	153	0.22876	110.6867	4REMNGTON 138.00 - FAIRFAX 138KV CKT 1
08NR	0	20L	ASGI_17_08	TO->FROM	COLLINSVILLE - SKIATOOK TAP 138KV CKT 1	143	143	0.04657	111.8209	CLEVELAND - TULSA NORTH 345KV CKT 1
08NR	0	20L	ASGI_17_08	TO->FROM	COLLINSVILLE - SKIATOOK TAP 138KV CKT 1	143	143	0.04657	111.8209	CLEVELAND - TULSA NORTH 345KV CKT 1
08NR	2	20L	ASGI_17_08	TO->FROM	COLLINSVILLE - SKIATOOK TAP 138KV CKT 1	143	143	0.04211	111.3197	CLEVELAND - TULSA NORTH 345KV CKT 1

Table 6: Thermal Constraints Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08NR	2	20L	ASGI_17_08	TO->FROM	COLLINSVILLE - SKIATOOK TAP 138KV CKT 1	143	143	0.04211	111.3197	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	123.1879	BASE CASE
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	123.0215	BASE CASE
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03545	121.5066	BASE CASE
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03377	121.3409	BASE CASE
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03993	116.2953	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03829	116.1301	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	115.3472	BASE CASE
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	115.1813	BASE CASE
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04012	114.6966	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03838	114.5222	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.036	110.6561	SUMNER 4 - TIMBJCT4 138KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03429	110.4859	SUMNER 4 - TIMBJCT4 138KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03993	108.3083	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03829	108.1387	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.039	106.5423	CRESWELL - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03545	106.4105	GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03716	106.3541	CRESWELL - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03377	106.2422	GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.039	106.239	CITY OF WELLINGTON - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.039	106.1306	P12:069:WERE:BELL-CRSW_69::
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03716	106.0555	CITY OF WELLINGTON - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.036	105.9721	TIMBJCT4 (TIMJ TX-1) 138/69/13.2KV TRANSFORMER CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03716	105.9466	P12:069:WERE:BELL-CRSW_69::
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03429	105.8022	TIMBJCT4 (TIMJ TX-1) 138/69/13.2KV TRANSFORMER CKT 1

Table 6: Thermal Constraints Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04331	105.0774	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.039	104.8848	CITY OF WELLINGTON - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04117	104.8612	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03716	104.7012	CITY OF WELLINGTON - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04003	104.6321	TIMBER JUNCTION - UDALL 69KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03813	104.4432	TIMBER JUNCTION - UDALL 69KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04003	104.3855	P12:069:WERE:TIMJ-WEAV_69::
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03813	104.196	P12:069:WERE:TIMJ-WEAV_69::
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04003	103.3614	RICHLAND - UDALL 69KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04331	103.2148	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03813	103.1715	RICHLAND - UDALL 69KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04117	102.9982	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04003	102.0072	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03535	102	DBL-G1524-WI
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03813	101.817	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03367	101.8	DBL-G1524-WI
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.039	101.3306	BELL - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03716	101.147	BELL - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03993	100.2418	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04003	100.1662	ROSE HILL JUNCTION - WEAVER 69KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03829	100.0773	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03569	100	P12:138:OKGE:3TERM2
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03813	100	ROSE HILL JUNCTION - WEAVER 69KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03564	99.9	MORISNT4 138.00 - STILLWATER 138KV CKT 1

Table 6: Thermal Constraints Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0489	99.9	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0489	99.9	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.039	99.8	BELL - PECK 69KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03483	99.8	EL PASO - ROSE HILL 138KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03381	99.8	P12:138:OKGE:3TERM2
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	99.7	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	99.7	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03597	99.7	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.039	99.7	P12:069:WERE:BELL-MURR_69::
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03376	99.7	MORISNT4 138.00 - STILLWATER 138KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03319	99.7	EL PASO - ROSE HILL 138KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03716	99.6	BELL - PECK 69KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03677	99.5	CLEVELAND - TULSA NORTH 345KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03677	99.5	CLEVELAND - TULSA NORTH 345KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	99.5	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03426	99.5	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	99.5	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03716	99.5	P12:069:WERE:BELL-MURR_69::

Table 7: Voltage Constraints Requiring Additional Transmission Reinforcements

Dispatch Group	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Max MW Available	Contingency
				Currently, None						

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.0404	128.5377	P12:138:AEPW:N.E.S.-4:CATOOSA4
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03696	128.1611	P12:138:AEPW:N.E.S.-4:CATOOSA4
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.04069	127.9626	P12:138:AEPW:N.E.S.-4:CATOOSA4
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03725	127.5834	P12:138:AEPW:N.E.S.-4:CATOOSA4
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.04076	126.4268	P12:138:AEPW:N.E.S.-4:CATOOSA4
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03732	126.049	P12:138:AEPW:N.E.S.-4:CATOOSA4
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03711	122.1011	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.0346	121.8221	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03674	120.7912	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03424	120.5112	GRDA1 - GREC TAP5 345.00 345KV CKT 1
0	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.0404	117.7666	P12:138:AEPW:N.E.S.-4:CATOOSA4
0	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03696	117.6907	P12:138:AEPW:N.E.S.-4:CATOOSA4
0	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.04069	116.3856	P12:138:AEPW:N.E.S.-4:CATOOSA4
0	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03725	116.3098	P12:138:AEPW:N.E.S.-4:CATOOSA4
08ALL	2	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.0407	116.0852	P12:138:AEPW:N.E.S.-4:CATOOSA4
08ALL	0	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03725	115.6938	P12:138:AEPW:N.E.S.-4:CATOOSA4
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03718	114.6592	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03467	114.3742	GRDA1 - GREC TAP5 345.00 345KV CKT 1
0	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.04076	114.118	P12:138:AEPW:N.E.S.-4:CATOOSA4
0	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03732	114.0429	P12:138:AEPW:N.E.S.-4:CATOOSA4
08ALL	2	20WP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	158	158	0.04058	109.6272	P12:138:AEPW:N.E.S.-4:CATOOSA4
08ALL	0	20WP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	158	158	0.03713	109.2786	P12:138:AEPW:N.E.S.-4:CATOOSA4
08ALL	2	16WP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	158	158	0.04129	107.1212	P12:138:AEPW:N.E.S.-4:CATOOSA4
08ALL	0	16WP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	158	158	0.03785	106.7689	P12:138:AEPW:N.E.S.-4:CATOOSA4
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03296	105.8422	NORTHEAST STATION - OWASSO SOUTH 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03297	105.6827	CLAREMORE TRANSOK - NORTHEAST STATION 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03008	105.5318	NORTHEAST STATION - OWASSO SOUTH 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03321	105.4598	NORTHEAST STATION - OWASSO SOUTH 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03008	105.3732	CLAREMORE TRANSOK - NORTHEAST STATION 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03322	105.2687	CLAREMORE TRANSOK - NORTHEAST STATION 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03248	105.2388	HAWTHORNE - NORTHEAST STATION 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03032	105.1446	NORTHEAST STATION - OWASSO SOUTH 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03224	105.1178	HAWTHORNE - NORTHEAST STATION 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03248	105.0063	P12:138:AEPW:VINTAJC4:N.E.S.-4
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03033	104.9542	CLAREMORE TRANSOK - NORTHEAST STATION 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02983	104.9517	HAWTHORNE - NORTHEAST STATION 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03248	104.9112	CHELSEA - HAWTHORNE 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03224	104.8824	P12:138:AEPW:VINTAJC4:N.E.S.-4
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03297	104.8424	CLAREMORE TRANSOK - VERDIGRIS 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02959	104.8338	HAWTHORNE - NORTHEAST STATION 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03224	104.793	CHELSEA - HAWTHORNE 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02983	104.719	P12:138:AEPW:VINTAJC4:N.E.S.-4
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02983	104.6241	CHELSEA - HAWTHORNE 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02959	104.5982	P12:138:AEPW:VINTAJC4:N.E.S.-4
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03008	104.5328	CLAREMORE TRANSOK - VERDIGRIS 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02959	104.5091	CHELSEA - HAWTHORNE 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03322	104.4308	CLAREMORE TRANSOK - VERDIGRIS 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03033	104.1114	CLAREMORE TRANSOK - VERDIGRIS 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03329	103.6587	NORTHEAST STATION - OWASSO SOUTH 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03248	103.4825	ALLUWE TAP - CHELSEA 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.0333	103.4137	CLAREMORE TRANSOK - NORTHEAST STATION 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03224	103.3651	ALLUWE TAP - CHELSEA 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.0304	103.3344	NORTHEAST STATION - OWASSO SOUTH 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03248	103.2505	ALLUWE TAP - VINITA JUNCTION 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02983	103.1955	ALLUWE TAP - CHELSEA 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03224	103.1345	ALLUWE TAP - VINITA JUNCTION 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03041	103.1016	CLAREMORE TRANSOK - NORTHEAST STATION 138KV CKT 1
0	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03711	103.0894	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02959	103.0812	ALLUWE TAP - CHELSEA 138KV CKT 1
0	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.0346	103.0326	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02983	102.9636	ALLUWE TAP - VINITA JUNCTION 138KV CKT 1
0	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03674	102.8953	GRDA1 - GREC TAP5 345.00 345KV CKT 1
0	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03424	102.8613	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02959	102.8508	ALLUWE TAP - VINITA JUNCTION 138KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	158	158	0.03695	102.5882	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.0333	102.5743	CLAREMORE TRANSOK - VERDIGRIS 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03296	102.5458	OWASSO SOUTH - PORT OF CATOOSA TAP 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03158	102.4305	CLEAVELAND - JAVINE 138KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	158	158	0.03445	102.3314	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03041	102.2621	CLAREMORE TRANSOK - VERDIGRIS 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03008	102.2361	OWASSO SOUTH - PORT OF CATOOSA TAP 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03321	102.1998	OWASSO SOUTH - PORT OF CATOOSA TAP 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03297	102.1647	TERRA NITROGEN TAP - VERDIGRIS 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02973	102.0878	CHAMBER SPRINGS - CLARKSVILLE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03188	102.0646	CLEAVELAND - JAVINE 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03032	101.8867	OWASSO SOUTH - PORT OF CATOOSA TAP 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03322	101.8599	TERRA NITROGEN TAP - VERDIGRIS 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03008	101.8555	TERRA NITROGEN TAP - VERDIGRIS 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02996	101.8318	CHAMBER SPRINGS - CLARKSVILLE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02958	101.8202	CLEAVELAND - JAVINE 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03253	101.658	HAWTHORNE - NORTHEAST STATION 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03033	101.5472	TERRA NITROGEN TAP - VERDIGRIS 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03253	101.429	P12:138:AEPW:VINTAJC4:N.E.S.-4
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02988	101.3716	HAWTHORNE - NORTHEAST STATION 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03253	101.3319	CHELSEA - HAWTHORNE 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02988	101.1424	P12:138:AEPW:VINTAJC4:N.E.S.-4
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03711	101.0772	GREC TAP5 345.00 - TULSA NORTH 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02988	101.0456	CHELSEA - HAWTHORNE 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03158	100.9758	4SFORKKTP 138.00 - JAVINE 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.0346	100.8041	GREC TAP5 345.00 - TULSA NORTH 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03188	100.6281	4SFORKKTP 138.00 - JAVINE 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.04923	100.5548	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.04923	100.4733	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.04948	100.4247	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02958	100.389	4SFORKKTP 138.00 - JAVINE 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.04948	100.3457	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03329	100.2509	OWASSO SOUTH - PORT OF CATOOSA TAP 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03892	100.2384	P12:138:AEPW-WERE:NBVILLE4:DEARING4
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03867	100.2379	P12:138:AEPW-WERE:NBVILLE4:DEARING4
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03888	100	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03863	100	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03674	100	GREC TAP5 345.00 - TULSA NORTH 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03297	100	CATOOSA - TERRA NITROGEN TAP 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03583	99.9	P12:138:AEPW-WERE:NBVILLE4:DEARING4
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03558	99.9	P12:138:AEPW-WERE:NBVILLE4:DEARING4
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.0333	99.9	TERRA NITROGEN TAP - VERDIGRIS 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03253	99.9	ALLUWE TAP - CHELSEA 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.0304	99.9	OWASSO SOUTH - PORT OF CATOOSA TAP 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03424	99.8	GREC TAP5 345.00 - TULSA NORTH 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03352	99.8	P12:138:GRDA:COLLINSVILLE-CLEVELAND
0	2	20WP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	158	158	0.04058	99.8	P12:138:AEPW:N.E.S.-4:CATOOSA4
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03579	99.7	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03383	99.7	P12:138:GRDA:COLLINSVILLE-CLEVELAND
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03322	99.7	CATOOSA - TERRA NITROGEN TAP 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03554	99.7	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1
0	0	20WP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	158	158	0.03713	99.7	P12:138:AEPW:N.E.S.-4:CATOOSA4
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03253	99.7	ALLUWE TAP - VINITA JUNCTION 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02903	99.7	GEN512688 2-GRDA1 G5U2 22
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03146	99.6	P12:138:GRDA:COLLINSVILLE-CLEVELAND
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03008	99.6	CATOOSA - TERRA NITROGEN TAP 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03041	99.6	TERRA NITROGEN TAP - VERDIGRIS 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02988	99.6	ALLUWE TAP - CHELSEA 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03688	99.5	GREC TAP5 345.00 - TULSA NORTH 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03177	99.4	P12:138:GRDA:COLLINSVILLE-CLEVELAND

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03888	99.4	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03033	99.4	CATOOSA - TERRA NITROGEN TAP 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03863	99.4	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02988	99.4	ALLUWE TAP - VINITA JUNCTION 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03072	99.3	BLACKBERRY - NEOSHO 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03438	99.2	GREC TAP5 345.00 - TULSA NORTH 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03045	99.2	BLACKBERRY - NEOSHO 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03579	99.1	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03554	99.1	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02908	98.9	P12:345:GRDA:CHOUTEAU-SPORTSMANACRES
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03191	98.9	CLEVELAND - JAVINE 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03688	98.7	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02961	98.7	CLEVELAND - JAVINE 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02931	98.5	P12:345:GRDA:CHOUTEAU-SPORTSMANACRES
08ALL	0	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03438	98.4	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03407	98.4	4SFORKKTP 138.00 - SKIATOOK TAP 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03437	98.3	4SFORKKTP 138.00 - SKIATOOK TAP 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03073	98.2	NORTHEAST STATION - OWASSO 109TH STREET 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03073	98.2	NORTHEAST STATION - OWASSO 109TH STREET 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03208	98.2	4SFORKKTP 138.00 - SKIATOOK TAP 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.04955	98.2	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03238	98.1	4SFORKKTP 138.00 - SKIATOOK TAP 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03296	98.1	CATOOSA - PORT OF CATOOSA TAP 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.04955	98.1	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03095	98	NORTHEAST STATION - OWASSO 109TH STREET 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03095	98	NORTHEAST STATION - OWASSO 109TH STREET 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03004	98	CHAMBER SPRINGS - CLARKSVILLE 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03407	97.9	COLLINSVILLE - SKIATOOK TAP 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03437	97.8	COLLINSVILLE - SKIATOOK TAP 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03321	97.8	CATOOSA - PORT OF CATOOSA TAP 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03437	97.8	COLLINSVILLE - SKIATOOK TAP 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03008	97.8	CATOOSA - PORT OF CATOOSA TAP 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03208	97.7	COLLINSVILLE - SKIATOOK TAP 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03892	97.7	P12:138:AEPW-WERE:NBVILLE4:DEARING4
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.0333	97.6	CATOOSA - TERRA NITROGEN TAP 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03032	97.5	CATOOSA - PORT OF CATOOSA TAP 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03238	97.5	COLLINSVILLE - SKIATOOK TAP 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03238	97.5	COLLINSVILLE - SKIATOOK TAP 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03888	97.5	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03191	97.5	4SFORKKTP 138.00 - JAVINE 138KV CKT 1
00NR	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03718	97.5	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03293	97.4	P13:069-138:WERE:DEAR_TX-1::
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03293	97.4	COFFEYVILLE TAP - DEARING 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03293	97.4	COFFEYVILLE TAP - DEARING 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.0327	97.4	P13:069-138:WERE:DEAR_TX-1::
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.0327	97.4	COFFEYVILLE TAP - DEARING 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.0327	97.4	COFFEYVILLE TAP - DEARING 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03583	97.4	P12:138:AEPW-WERE:NBVILLE4:DEARING4
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03041	97.3	CATOOSA - TERRA NITROGEN TAP 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08NR	2	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03688	97.2	GREC TAP5 345.00 - TULSA NORTH 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03932	97.2	COLLINSVILLE - KEETONVILLE 161KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02961	97.2	4SFORKKTP 138.00 - JAVINE 138KV CKT 1
00NR	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03467	97.2	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03019	97.1	P13:069-138:WERE:DEAR_TX-1::
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03019	97.1	COFFEYVILLE TAP - DEARING 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03019	97.1	COFFEYVILLE TAP - DEARING 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02996	97.1	P13:069-138:WERE:DEAR_TX-1::
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02996	97.1	COFFEYVILLE TAP - DEARING 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02996	97.1	COFFEYVILLE TAP - DEARING 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03579	97.1	BARTLESVILLE SOUTHEAST - NORTH BARTLESVILLE 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03236	97	HAWTHORNE - NORTHEAST STATION 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03804	97	COLLINSVILLE - KEETONVILLE 161KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03236	96.9	P12:138:AEPW:VINTAJC4:N.E.S.-4
08NR	0	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03438	96.9	GREC TAP5 345.00 - TULSA NORTH 345KV CKT 1
0	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03296	96.9	NORTHEAST STATION - OWASSO SOUTH 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03888	96.9	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03236	96.8	CHELSEA - HAWTHORNE 138KV CKT 1
0	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03008	96.8	NORTHEAST STATION - OWASSO SOUTH 138KV CKT 1
0	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03718	96.8	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02971	96.7	HAWTHORNE - NORTHEAST STATION 138KV CKT 1
0	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03297	96.7	CLAREMORE TRANSOK - NORTHEAST STATION 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03893	96.7	COLLINSVILLE - KEETONVILLE 161KV CKT 1
0	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03467	96.7	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03104	96.7	NORTHEAST STATION - OWASSO 109TH STREET 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03104	96.7	NORTHEAST STATION - OWASSO 109TH STREET 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02971	96.6	P12:138:AEPW:VINTAJC4:N.E.S.-4
0	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03008	96.6	CLAREMORE TRANSOK - NORTHEAST STATION 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03765	96.6	COLLINSVILLE - KEETONVILLE 161KV CKT 1
00NR	2	20WP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	158	158	0.04058	96.6	P12:138:AEPW:N.E.S.-4:CATOOSA4
08ALL	0	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02971	96.5	CHELSEA - HAWTHORNE 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02942	96.5	P12:345:GRDA:CHOUTEAU-SPORTSMANACRES
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03579	96.5	COFFEYVILLE TAP - NORTH BARTLESVILLE 138KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03688	96.3	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03386	96.3	P12:138:GRDA:COLLINSVILLE-CLEVELAND
08NR	2	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03236	96.2	HAWTHORNE - NORTHEAST STATION 138KV CKT 1
00NR	0	20WP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	158	158	0.03713	96.2	P12:138:AEPW:N.E.S.-4:CATOOSA4
08NR	2	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03236	96.1	P12:138:AEPW:VINTAJC4:N.E.S.-4
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03081	96.1	BLACKBERRY - NEOSHO 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03081	96.1	BLACKBERRY - NEOSHO 345KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03236	96	CHELSEA - HAWTHORNE 138KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03438	96	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03437	96	COLLINSVILLE (COLAUTO3) 161/138/13.8KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03437	96	COLLINSVILLE (COLAUTO3) 161/138/13.8KV TRANSFORMER CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03407	96	COLLINSVILLE (COLAUTO3) 161/138/13.8KV TRANSFORMER CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03407	96	COLLINSVILLE (COLAUTO3) 161/138/13.8KV TRANSFORMER CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03179	96	P12:138:GRDA:COLLINSVILLE-CLEVELAND
08NR	0	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02971	95.9	HAWTHORNE - NORTHEAST STATION 138KV CKT 1
0	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03321	95.9	NORTHEAST STATION - OWASSO SOUTH 138KV CKT 1
0	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03297	95.9	CLAREMORE TRANSOK - VERDIGRIS 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03236	95.8	ALLUWE TAP - CHELSEA 138KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02971	95.8	P12:138:AEPW:VINTAJC4:N.E.S.-4
0	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03032	95.8	NORTHEAST STATION - OWASSO SOUTH 138KV CKT 1
0	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03008	95.8	CLAREMORE TRANSOK - VERDIGRIS 138KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02971	95.7	CHELSEA - HAWTHORNE 138KV CKT 1
0	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03322	95.7	CLAREMORE TRANSOK - NORTHEAST STATION 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03238	95.7	COLLINSVILLE (COLAUTO3) 161/138/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03238	95.7	COLLINSVILLE (COLAUTO3) 161/138/13.8KV TRANSFORMER CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03208	95.7	COLLINSVILLE (COLAUTO3) 161/138/13.8KV TRANSFORMER CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03208	95.7	COLLINSVILLE (COLAUTO3) 161/138/13.8KV TRANSFORMER CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03236	95.6	ALLUWE TAP - VINITA JUNCTION 138KV CKT 1
0	0	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03033	95.6	CLAREMORE TRANSOK - NORTHEAST STATION 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03329	95.6	CATOOSA - PORT OF CATOOSA TAP 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03315	95.5	NORTHEAST STATION - OWASSO SOUTH 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02971	95.5	ALLUWE TAP - CHELSEA 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03051	95.5	P13:138-161:HOC_161TO138XFMR::
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03051	95.5	SUB 404 - HOCKERVILLE (HOCK 138) 161/138/12.5KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03051	95.5	SUB 404 - HOCKERVILLE - VINITA JUNCTION 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03051	95.5	SUB 404 - HOCKERVILLE - VINITA JUNCTION 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03029	95.5	P13:138-161:HOC_161TO138XFMR::
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03029	95.5	SUB 404 - HOCKERVILLE - VINITA JUNCTION 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03029	95.5	SUB 404 - HOCKERVILLE (HOCK 138) 161/138/12.5KV TRANSFORMER CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03029	95.5	SUB 404 - HOCKERVILLE - VINITA JUNCTION 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17G	ASGI_17_08	TO->FROM	40OLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03315	95.3	CLAREMORE TRANSOK - NORTHEAST STATION 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	40OLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02971	95.3	ALLUWE TAP - VINITA JUNCTION 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	40OLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03073	95.3	P12:138:AEPW:OWAS1094:T.NO.-4
08ALL	2	25SP	ASGI_17_08	TO->FROM	40OLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02903	95.3	GEN509394 1-FLINT CREEK
08ALL	0	25SP	ASGI_17_08	TO->FROM	40OLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.0304	95.3	CATOOSA - PORT OF CATOOSA TAP 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	40OLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03026	95.2	NORTHEAST STATION - OWASSO SOUTH 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	40OLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.03095	95.1	P12:138:AEPW:OWAS1094:T.NO.-4
08ALL	2	20SP	ASGI_17_08	TO->FROM	40OLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02926	95.1	VINITA JUNCTION (VINITAJC) 138/69/13.8KV TRANSFORMER CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	40OLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02926	95.1	VINITA - VINITA JUNCTION 69KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	40OLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02926	95.1	VINITA JUNCTION (VINITAJC) 138/69/13.8KV TRANSFORMER CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	40OLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.02926	95.1	VINITA - VINITA JUNCTION 69KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	40OLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1	143	143	0.0344	95.1	4SFORKKTP 138.00 - SKIATOOK TAP 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	0.83641	99.1	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	0.83641	99.1	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	0.8366	99.1	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	0.8366	99.1	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08NR	0	20L	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	0.83723	96.9	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08NR	0	20L	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	0.83723	96.9	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08NR	0	17G	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	0.83632	95.8	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08NR	0	17G	ASGI_17_08	FROM->TO	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1	319	319	0.83632	95.8	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08NR	2	20L	ASGI_17_08	FROM->TO	BARTLESVILLE COMANCHE - BARTLESVILLE SOUTHEAST 138KV CKT 1	153	153	0.22876	99.3	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08NR	0	20L	ASGI_17_08	FROM->TO	BARTLESVILLE COMANCHE - BARTLESVILLE SOUTHEAST 138KV CKT 1	153	153	0.22876	99.3	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	BARTLESVILLE COMANCHE - BARTLESVILLE SOUTHEAST 138KV CKT 1	153	153	0.18906	95.6	BARTLESVILLE COMANCHE - BLUESTEM 138KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.03965	109.4941	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.03903	109.4911	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	20L	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.03965	109.4776	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.03903	109.4745	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.03965	104.7335	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.03903	104.7307	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.04452	98.6	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.04452	98.6	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.0439	98.6	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.0439	98.6	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.04492	98.4	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.04426	98.4	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.04492	97.8	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.04426	97.8	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.0443	96.4	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.0443	96.4	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.04365	96.4	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.04365	96.4	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08NR	2	20L	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.03965	95.7	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08NR	2	20L	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.03965	95.7	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08NR	0	20L	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.03903	95.7	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08NR	0	20L	ASGI_17_08	FROM->TO	CANEYRV7 345.00 - NEOSHO 345KV CKT 1	766	923	0.03903	95.7	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.04248	106.221	ARCADIA - SEMINOLE 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.04157	106.2031	ARCADIA - SEMINOLE 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03924	104.8509	G14-057T 345.00 - SUNNYSIDE 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03823	104.8305	G14-057T 345.00 - SUNNYSIDE 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03342	104.0373	CLEVELAND - G15066_T 345.00 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03135	103.9966	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03924	101.5791	G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03823	101.5586	G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03991	100.8738	GRACEMONT - MINCO 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03897	100.8549	GRACEMONT - MINCO 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03342	100.4571	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03135	100.4136	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.0456	100	ARCADIA - SEMINOLE 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.04468	100	ARCADIA - SEMINOLE 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.04394	98.8	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.04394	98.8	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.04352	98.8	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.04352	98.8	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03579	98.1	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03372	98.1	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03649	97.3	GRACEMONT - LAWTON EASTSIDE 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03649	97.3	GRACEMONT - LAWTON EASTSIDE 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03555	97.3	GRACEMONT - LAWTON EASTSIDE 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03555	97.3	GRACEMONT - LAWTON EASTSIDE 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.04275	96.9	GRACEMONT - MINCO 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.04181	96.9	GRACEMONT - MINCO 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.04239	96.6	G14-057T 345.00 - SUNNYSIDE 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03991	96.5	CIMARRON - MINCO 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03897	96.5	CIMARRON - MINCO 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.04139	96.5	G14-057T 345.00 - SUNNYSIDE 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03638	95.4	ARCADIA - NORTHWEST 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03504	95.4	ARCADIA - NORTHWEST 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03357	95.2	CIMARRON - SARA 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03261	95.2	CIMARRON - SARA 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03303	95.1	CIMARRON (CIMARON2) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	CIMARRON - DRAPER LAKE 345KV CKT 1	717	717	0.03207	95.1	CIMARRON (CIMARON2) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.13724	104.5177	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.13105	104.4281	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11915	103.4203	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.12773	103.3911	SOONER - SPRING CREEK 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11324	103.3264	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.12194	103.314	SOONER - SPRING CREEK 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.12773	103.3013	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.12194	103.2164	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.1213	102.5991	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11559	102.506	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.12162	101.4697	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.12162	101.429	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11566	101.3714	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11566	101.3344	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11915	100.2489	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11324	100.1609	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.12162	99.7	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.1213	99.6	G15063_T 345.00 - WOODRING 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11566	99.6	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11559	99.5	G15063_T 345.00 - WOODRING 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.03469	99.2	CLEVELAND (CLVAUTO1) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.03469	99.2	CLEVELAND - CLEVELND 4 138.00 138KV CKT Z1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.03469	99.2	CLEVELAND (CLVAUTO1) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.03109	99.2	CLEVELAND (CLVAUTO1) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.03109	99.2	CLEVELAND - CLEVELND 4 138.00 138KV CKT Z1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.03109	99.2	CLEVELAND - CLEVELND 4 138.00 138KV CKT Z1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.03109	99.2	CLEVELAND (CLVAUTO1) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11631	98.1	REDBUD - RIVERSIDE STATION 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11631	98.1	REDBUD - RIVERSIDE STATION 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11043	98	REDBUD - RIVERSIDE STATION 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11043	98	REDBUD - RIVERSIDE STATION 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.13724	98	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.13105	97.9	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.1865	97.5	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.1865	97.5	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.18713	97.5	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.18713	97.5	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.1865	97.3	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.18713	97.3	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.1865	97.3	DOMES - MOUND ROAD 138KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.1865	97.3	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.18713	97.3	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.18713	97.3	DOMES - MOUND ROAD 138KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11915	97.1	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11324	97	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11513	96.8	BASE CASE
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.10913	96.7	BASE CASE
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.1108	95.9	P12:138:OKGE:3TERM2
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.1158	95.9	P12:138:OKGE:3TERM2
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11061	95.9	MORISNT4 138.00 - STILLWATER 138KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11562	95.9	MORISNT4 138.00 - STILLWATER 138KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11513	95.5	GEN511840 1-NORTHEASTERN STATION #3
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.10913	95.4	GEN511840 1-NORTHEASTERN STATION #3
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11688	95.4	CIMARRON - DRAPER LAKE 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.12987	95.4	CLEVELAND - SILVER CITY 138KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11094	95.3	CIMARRON - DRAPER LAKE 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.12249	95.3	CLEVELAND - SILVER CITY 138KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.12467	95.1	P12:138:GRDA:COLLINSVILLE-CLEVELAND
08ALL	2	20L	ASGI_17_08	FROM->TO	CLEVELAND - TULSA NORTH 345KV CKT 1	1135	1195	0.11768	95	P12:138:GRDA:COLLINSVILLE-CLEVELAND
08ALL	0	20L	ASGI_17_08	TO->FROM	COLLINSVILLE - SKIATOOK TAP 138KV CKT 1	143	143	0.04657	124.4471	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	COLLINSVILLE - SKIATOOK TAP 138KV CKT 1	143	143	0.04657	124.4471	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	COLLINSVILLE - SKIATOOK TAP 138KV CKT 1	143	143	0.04211	123.971	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	COLLINSVILLE - SKIATOOK TAP 138KV CKT 1	143	143	0.04211	123.971	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05317	129.7509	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05286	129.7402	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05481	122.8303	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05448	122.8198	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0546	119.1348	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0546	119.1336	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05425	119.124	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05425	119.1234	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05077	117.1944	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05047	117.1843	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0546	114.5451	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05425	114.5337	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05598	113.0197	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05598	113.0099	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05563	113.0092	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05563	112.9994	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05276	112.2054	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05243	112.1917	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05233	110.6052	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05202	110.595	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05142	109.4518	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0511	109.4408	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05094	109.1032	EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05063	109.0931	EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05598	108.4659	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05563	108.4553	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05884	107.4951	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0585	107.4886	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05884	107.4885	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0585	107.4827	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04311	107.2312	P13:115-345:WERE:LANG_TX-1::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04311	107.2311	LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04311	107.2295	EMPORIA ENERGY CENTER - LANG 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04285	107.2229	P13:115-345:WERE:LANG_TX-1::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04285	107.2228	LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04285	107.2212	EMPORIA ENERGY CENTER - LANG 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04376	106.4501	AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04349	106.4417	AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04637	106.3751	LACYGNE - WEST GARDNER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0461	106.3663	LACYGNE - WEST GARDNER 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04913	106.045	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04881	106.0342	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05269	105.8403	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05234	105.8298	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05269	105.7148	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05234	105.7034	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	105.6305	GEN532663 1-LAWRENCE ENERGY CENTER UNIT 5
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	105.6227	GEN532663 1-LAWRENCE ENERGY CENTER UNIT 5
08ALL	2	20WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05381	105.6148	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05349	105.6028	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04654	105.3759	MORRIS COUNTY - SWISSVALE 230KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04626	105.3671	MORRIS COUNTY - SWISSVALE 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0461	105.2884	LACYGNE - STILWELL 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04583	105.2794	LACYGNE - STILWELL 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04514	105.2529	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04483	105.2456	CANEYRV7 345.00 - NEOSHO 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	20L	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05823	105.0985	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0579	105.0899	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04244	104.6005	MORRIS COUNTY (MORR TX-1) 345/230/14.4KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04218	104.5927	MORRIS COUNTY (MORR TX-1) 345/230/14.4KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	104.2401	GEN542955 1-LACYGNE UNIT #1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	104.2323	GEN542955 1-LACYGNE UNIT #1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	104.1538	GEN542962 2-IATAN UNIT #2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	104.1461	GEN542962 2-IATAN UNIT #2
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05249	103.8472	EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05217	103.837	EMPORIA ENERGY CENTER - MORRIS COUNTY 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	103.5471	GEN542956 2-LACYGNE UNIT #2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	103.5395	GEN542956 2-LACYGNE UNIT #2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	103.4168	GEN542951 5-HAWTHORN UNIT #5
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	103.4091	GEN542951 5-HAWTHORN UNIT #5
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	103.1506	GEN542957 1-IATAN UNIT #1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	103.1429	GEN542957 1-IATAN UNIT #1
08ALL	2	20L	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05884	103.1331	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0585	103.1272	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04514	103.0835	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04483	103.0753	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04286	103.0531	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04223	103.0386	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04603	102.7236	AXTELL - G16-050-TAP 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04575	102.7147	AXTELL - G16-050-TAP 345.00 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	20WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05495	102.6914	G16-012-TAP 345.00 - WAVERLY7 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05495	102.6824	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0546	102.6809	G16-012-TAP 345.00 - WAVERLY7 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0546	102.6723	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	102.5272	GEN300003 1-THOMAS HILL UNIT 3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	102.5194	GEN300003 1-THOMAS HILL UNIT 3
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04431	102.3161	P13:115-345:WERE:LANG_TX-1::
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04431	102.3161	LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04431	102.3145	EMPORIA ENERGY CENTER - LANG 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04404	102.3074	P13:115-345:WERE:LANG_TX-1::
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04404	102.3073	LANG (LANG TX-1) 345/115/14.4KV TRANSFORMER CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04404	102.3061	EMPORIA ENERGY CENTER - LANG 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05387	102.2945	G16-012-TAP 345.00 - WAVERLY7 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05387	102.2925	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05352	102.2834	G16-012-TAP 345.00 - WAVERLY7 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05352	102.2814	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04415	102.2115	P12:115:WERE:LANG-TECH_115P::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04388	102.203	P12:115:WERE:LANG-TECH_115P::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04415	102.1347	P12:115:WERE:FOUR-LANG_115F::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04388	102.1262	P12:115:WERE:FOUR-LANG_115F::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04603	102.0913	G16-050-TAP 345.00 - POST ROCK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04575	102.0825	G16-050-TAP 345.00 - POST ROCK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04415	102.034	LANG - READING LAKE 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04388	102.0255	LANG - READING LAKE 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04149	101.9989	87th STREET - STRANGER CREEK 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04123	101.9909	87th STREET - STRANGER CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04286	101.9317	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04223	101.9167	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04415	101.7451	OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04388	101.7366	OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	101.6955	GEN640009 1-COOPER NUCLEAR STATION
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	101.6877	GEN640009 1-COOPER NUCLEAR STATION
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	101.6248	GEN645012 2-NEBRASKA CITY 2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	101.617	GEN645012 2-NEBRASKA CITY 2
08ALL	2	17G	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05037	101.4561	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05037	101.4465	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05003	101.4456	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	101.4397	GEN645011 1-NEBRASKA CITY 1
08ALL	0	17G	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05003	101.4361	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	101.4319	GEN645011 1-NEBRASKA CITY 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04305	101.3741	DBL-THIS-G15
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04656	101.3664	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04656	101.3664	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04273	101.3648	DBL-THIS-G15
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04647	101.3621	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04647	101.3621	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05269	101.3461	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05234	101.3348	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04114	101.2296	HUNTERS7 345.00 - WOODRING 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04077	101.2197	HUNTERS7 345.00 - WOODRING 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04415	101.1971	OSAGE CITY JUNCTION SWITCHING STATION - SCRNTJS3 115.00 115KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04415	101.1961	SCRANTON - SCRNTJ53 115.00 115KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04497	101.1951	AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04388	101.1887	OSAGE CITY JUNCTION SWITCHING STATION - SCRNTJ53 115.00 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04388	101.1876	SCRANTON - SCRNTJ53 115.00 115KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04469	101.1866	AUBURN ROAD - JEFFREY ENERGY CENTER 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	101.1689	GEN541151 3-SIBLEY GENERATING UNIT #3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	101.1612	GEN541151 3-SIBLEY GENERATING UNIT #3
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04769	101.158	LACYGNE - WEST GARDNER 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04741	101.149	LACYGNE - WEST GARDNER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04273	101.111	HOYT (HOYT TX-1) 345/115/14.4KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04246	101.1028	HOYT (HOYT TX-1) 345/115/14.4KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04101	101.0761	BENTON - WICHITA 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04075	101.0683	BENTON - WICHITA 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04415	100.8871	FOUR CORNERS - SCRNTJN3 115.00 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04415	100.887	SCRANTON - SCRNTJN3 115.00 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04388	100.8787	FOUR CORNERS - SCRNTJN3 115.00 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04388	100.8786	SCRANTON - SCRNTJN3 115.00 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04514	100.8415	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04483	100.8326	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04413	100.7096	DBL-SPRVL-IR
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04385	100.7012	DBL-SPRVL-IR
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04169	100.6051	87th STREET - CRAIG 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04143	100.5975	87th STREET - CRAIG 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04369	100.5869	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04339	100.5793	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04415	100.5419	P12:115:WERE:FOUR-TECH_115F::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04388	100.5334	P12:115:WERE:FOUR-TECH_115F::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04274	100.5033	P12:138:WERE:BENT-NORT_138P::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	100.495	P12:138:WERE:BENT-NORT_138P::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04415	100.4867	CARB-KW 3 - FOUR CORNERS 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04388	100.4783	CARB-KW 3 - FOUR CORNERS 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	100.3747	GEN546702 1-NM GEN N1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	100.3669	GEN546702 1-NM GEN N1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04394	100.338	GEN532663 1-LAWRENCE ENERGY CENTER UNIT 5
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04368	100.3301	GEN532663 1-LAWRENCE ENERGY CENTER UNIT 5
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04204	100.3292	SUMMIT - UNIONRG6 230.00 230KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04178	100.3211	SUMMIT - UNIONRG6 230.00 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	100.319	GEN344225 1-1CAL G1 25.000
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	100.3113	GEN344225 1-1CAL G1 25.000
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04411	100.2917	RENO COUNTY - WICHITA 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04384	100.2834	RENO COUNTY - WICHITA 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04415	100.2609	CARB-KW 3 - SHAWNEE HEIGHTS 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04388	100.2525	CARB-KW 3 - SHAWNEE HEIGHTS 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0446	100.2189	7JASPER 345.00 - BLACKBERRY 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04433	100.2155	7JASPER 345.00 - BLACKBERRY 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	100.1543	GEN300007 1-NEW MADRID UNIT 2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	100.1465	GEN300007 1-NEW MADRID UNIT 2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04274	100.1439	P12:069:WERE:64TH-NORT_69F::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	100.1432	GEN300006 1-NEW MADRID UNIT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	100.1405	P12:115:WERE:EMAN-KSU_115::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04247	100.1357	P12:069:WERE:64TH-NORT_69F::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	100.1354	GEN300006 1-NEW MADRID UNIT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	100.1323	P12:115:WERE:EMAN-KSU_115::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04274	100.1241	P12:069:WERE:COWS-HOOVS_69F::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	100.1159	P12:069:WERE:COWS-HOOVS_69F::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	100.062	GEN635024 4-WALTER SCOTT UNIT 4
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	100.0543	GEN635024 4-WALTER SCOTT UNIT 4
08ALL	2	25SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05033	100.0542	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04369	100	G15063_T 345.00 - WOODRING 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04343	100	P12:115:WERE:AUBN-SMAN_115F3::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04343	100	P12:115:WERE:AUBN-SMAN_115F1::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04343	100	P12:115:WERE:AUBN-SMAN_115F2::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04339	100	G15063_T 345.00 - WOODRING 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04316	100	P12:115:WERE:AUBN-SMAN_115F1::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04316	100	P12:115:WERE:AUBN-SMAN_115F2::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04316	100	P12:115:WERE:AUBN-SMAN_115F3::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	100	GEN659107 2-ANTELOPE VALLEY UNIT2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	100	GEN659103 1-ANTELOPE VALLEY UNIT1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	100	EASTDC - ERCOT EQUIVALENCE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	100	GEN659107 2-ANTELOPE VALLEY UNIT2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	100	GEN659103 1-ANTELOPE VALLEY UNIT1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0463	100	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05002	100	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04478	99.9	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04454	99.9	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04361	99.9	G13-010T 345.00 - POST ROCK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04343	99.9	SMAN_W_3 115.00 - SOUTH MANHATTAN 115KV CKT Z1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04335	99.9	GRAND ISLAND - SWEETWATER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04334	99.9	G13-010T 345.00 - POST ROCK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04308	99.9	GRAND ISLAND - SWEETWATER 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.9	GEN300002 1-THOMAS HILL UNIT 2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04266	99.9	P12:138:WERE:GECT-HOOV_138::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.9	GEN300002 1-THOMAS HILL UNIT 2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.9	EASTDC - ERCOT EQUIVALENCE 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04736	99.9	LACYGNE - STILWELL 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04709	99.9	LACYGNE - STILWELL 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04599	99.9	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04415	99.8	SHAWNEE HEIGHTS - TECUMSEH HILL 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04361	99.8	G13-010T 345.00 - G16-049-TAP 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04352	99.8	AXTELL - PAULINE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04334	99.8	G13-010T 345.00 - G16-049-TAP 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04325	99.8	AXTELL - PAULINE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04316	99.8	SMAN_W_3 115.00 - SOUTH MANHATTAN 115KV CKT Z1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04279	99.8	P13:115-230:WERE:MCDO_TX-1::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04279	99.8	MCDOWELL CREEK - MORRIS COUNTY 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04279	99.8	MCDOWELL CREEK (MCDO TX-1) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.8	GEN659111 2-LELAND OLDS UNIT2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.8	GEN541162 1-ARIES STEAM TURBINE
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.8	GEN635023 3-WALTER SCOTT UNIT 3
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.8	P12:115:WERE:PHLP-SALM_115::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04271	99.8	P12:138:WERE:HOOV-MURR_138::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04252	99.8	P13:115-230:WERE:MCDO_TX-1::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04252	99.8	MCDOWELL CREEK (MCDO TX-1) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04252	99.8	MCDOWELL CREEK - MORRIS COUNTY 230KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04249	99.8	P12:115:WERE:PHLP-SALM_115::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.8	GEN659111 2-LELAND OLDS UNIT2

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.8	GEN541162 1-ARIES STEAM TURBINE
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.8	GEN635023 3-WALTER SCOTT UNIT 3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04245	99.8	P12:138:WERE:HOOV-MURR_138::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04239	99.8	P12:138:WERE:GECT-HOOV_138::
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04786	99.8	MORRIS COUNTY - SWISSVALE 230KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04757	99.8	MORRIS COUNTY - SWISSVALE 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04343	99.77368	SOUTH ALMA - SOUTH MANHATTAN 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04316	99.76582	SOUTH ALMA - SOUTH MANHATTAN 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0439	99.7	P12:161:WERE:MARM-KCPL_161::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0439	99.7	CENTERVILLE - G15-016T 161.00 161KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04388	99.7	SHAWNEE HEIGHTS - TECUMSEH HILL 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04364	99.7	P12:161:WERE:MARM-KCPL_161::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04364	99.7	CENTERVILLE - G15-016T 161.00 161KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04304	99.7	P13:069-138:WERE:ALTO_TX-1OR3P::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04277	99.7	P13:069-138:WERE:ALTO_TX-1OR3P::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.7	GEN629075 1-OTTUMWA GENERATOR FOR OTTUMWA UNIT NO 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.7	GEN542954 3-MONTROSE UNIT #3
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.7	GEN542953 2-MONTROSE UNIT #2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.7	P12:138:WERE:HARR-WEAV_138::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.7	P12:115:WERE:EEUR-WEMP_115::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.7	GEN542954 3-MONTROSE UNIT #3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.7	GEN542953 2-MONTROSE UNIT #2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.7	GEN629075 1-OTTUMWA GENERATOR FOR OTTUMWA UNIT NO 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04201	99.7	P12:115:WERE:MOUN-WEMP_115P::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04175	99.7	P12:115:WERE:MOUN-WEMP_115P::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04455	99.6	MINGO - RED WILLOW 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04372	99.6	MINGO - SETAB 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04482	99.6	MINGO - RED WILLOW 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04482	99.6	MINGO - RED WILLOW 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04455	99.6	MINGO - RED WILLOW 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04399	99.6	MINGO - SETAB 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04399	99.6	MINGO - SETAB 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04372	99.6	MINGO - SETAB 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04345	99.6	G15088_T 345.00 - MOORE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04338	99.6	CHAMBER SPRINGS - CLARKSVILLE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04318	99.6	G15088_T 345.00 - MOORE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04312	99.6	CHAMBER SPRINGS - CLARKSVILLE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.6	GEN562694 1-G15_016_3 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.6	GEN590011 2-ERCOT EQUIVALENCE
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.6	GEN590010 1-ERCOT EQUIVALENCE
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.6	GEN532662 1-LAWRENCE ENERGY CENTER UNIT 4
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.6	P12:115:WERE:3VAN-HEC_115P::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04274	99.6	P12:069:WERE:MACA-PLAZ_69::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04272	99.6	P12:069:WERE:MOUN-NEWT_69::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04267	99.6	P12:115:WERE:LANG-WEMP_115::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04249	99.6	P12:138:WERE:HARR-WEAV_138::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.6	GEN562694 1-G15_016_3 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.6	GEN590010 1-ERCOT EQUIVALENCE
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.6	GEN532662 1-LAWRENCE ENERGY CENTER UNIT 4
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.6	GEN590011 2-ERCOT EQUIVALENCE
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.6	P12:115:WERE:3VAN-HEC_115P::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.6	P12:069:WERE:MACA-PLAZ_69::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.6	P12:115:WERE:EEUR-WEMP_115::

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04246	99.6	P12:069:WERE:MOUN-NEWT_69::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04241	99.6	P12:115:WERE:LANG-WEMP_115::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04233	99.6	OVEXFRMCCOVE
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04208	99.6	OVEXFRMCCOVE
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04075	99.6	RANCHRD7 345.00 - SOONER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04047	99.6	RANCHRD7 345.00 - SOONER 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0436	99.6	MORRIS COUNTY (MORR TX-1) 345/230/14.4KV TRANSFORMER CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04333	99.6	MORRIS COUNTY (MORR TX-1) 345/230/14.4KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.5	GEN532672 1-TECUMSEH ENERGY CENTER UNIT 8
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.5	GEN532672 1-TECUMSEH ENERGY CENTER UNIT 8
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04268	99.5	P12:138:WERE:COWS-WACO_138::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04292	99.5	CONCORDIA (CONCORD6) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04292	99.5	CONCORDIA - ELM CREEK 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04361	99.5	G16-049-TAP 345.00 - SPEARVILLE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04292	99.5	CONCORDIA - ELM CREEK 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04292	99.5	CONCORDIA (CONCORD6) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04265	99.5	CONCORDIA - ELM CREEK 230KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04265	99.5	CONCORDIA (CONCORD6) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04334	99.5	G16-049-TAP 345.00 - SPEARVILLE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04265	99.5	CONCORDIA (CONCORD6) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04265	99.5	CONCORDIA - ELM CREEK 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.4	GEN636641 1-LOUISA UNIT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.4	GEN546698 1-QN GEN2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.4	GEN300001 1-THOMAS HILL UNIT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.4	GEN542967 9-HAWTHORN UNIT #9

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.4	GEN636641 1-LOUISA UNIT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.4	GEN546698 1-QN GEN2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.4	GEN542967 9-HAWTHORN UNIT #9
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.4	GEN300001 1-THOMAS HILL UNIT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04298	99.4	DBL-HTCH-OTA
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04121	99.4	DBL-THIS-WWR
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.4	P12:069:WERE:HOOVN-RIPL_69::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04271	99.4	DBL-HTCH-OTA
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04092	99.4	DBL-THIS-WWR
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.4	P12:069:WERE:HOOVN-RIPL_69::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04242	99.4	P12:138:WERE:COWS-WACO_138::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0439	99.4	CENTERVILLE - PAOLA 161KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04408	99.4	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04355	99.4	HOLCOMB - SETAB 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04408	99.4	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04355	99.4	HOLCOMB - SETAB 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0434	99.4	7MCCREDIE 345.00 - 7MONTGMRY 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04389	99.4	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04364	99.4	CENTERVILLE - PAOLA 161KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04328	99.4	HOLCOMB - SETAB 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04389	99.4	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04314	99.4	7MCCREDIE 345.00 - 7MONTGMRY 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04328	99.4	HOLCOMB - SETAB 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04295	99.38257	GRDA1 - SILOAM SPRINGS TAP 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04295	99.38257	GRDA1 - SILOAM SPRINGS TAP 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04269	99.37457	GRDA1 - SILOAM SPRINGS TAP 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04269	99.37457	GRDA1 - SILOAM SPRINGS TAP 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.3	GEN635214 4-NEAL UNIT 4
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.3	GEN543109 4-BULL CREEK COMBUSTION TURBINE #4
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.3	GEN542961 6-HAWTHORN COMBUSTION TURBINE #6
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.3	GEN505432 1-SIKESTON
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.3	GEN543107 2-BULL CREEK COMBUSTION TURBINE #2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.3	GEN629074 1-ARNOLD LOWSIDE OF GSU XFMR
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.3	GEN600002 3-SHERBURNE CNTY G3
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.3	GEN541165 1-SHARPR#1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.3	GEN543106 1-BULL CREEK COMBUSTION TURBINE #1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.3	GEN541166 2-SHARPR#2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.3	GEN543108 3-BULL CREEK COMBUSTION TURBINE #3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.3	GEN541165 1-SHARPR#1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.3	GEN543107 2-BULL CREEK COMBUSTION TURBINE #2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.3	GEN542961 6-HAWTHORN COMBUSTION TURBINE #6
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.3	GEN600002 3-SHERBURNE CNTY G3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.3	GEN543106 1-BULL CREEK COMBUSTION TURBINE #1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.3	GEN635214 4-NEAL UNIT 4
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.3	GEN541166 2-SHARPR#2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.3	GEN543108 3-BULL CREEK COMBUSTION TURBINE #3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.3	GEN543109 4-BULL CREEK COMBUSTION TURBINE #4
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04265	99.3	P13:069-138:WERE:COWS_TX-1::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04239	99.3	P13:069-138:WERE:COWS_TX-1::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04114	99.3	G16-072-TAP 345.00 - HUNTERS7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04323	99.3	G14-057T 345.00 - SUNNYSIDE 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04114	99.3	G16-072-TAP 345.00 - RENFROW7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04345	99.3	G15088_T 345.00 - PAULINE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04335	99.3	KEO EHV - WEST MEMPHIS 500 500KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04296	99.3	G14-057T 345.00 - SUNNYSIDE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04077	99.3	G16-072-TAP 345.00 - HUNTERS7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04077	99.3	G16-072-TAP 345.00 - RENFROW7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04318	99.3	G15088_T 345.00 - PAULINE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04309	99.3	KEO EHV - WEST MEMPHIS 500 500KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04343	99.21825	KEENE - SOUTH ALMA 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04316	99.2104	KEENE - SOUTH ALMA 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.2	GEN549893 2-SOUTHWEST 2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.2	GEN645025 5-NORTH OMAHA 5
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.2	GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.2	GEN541163 1-ARIES COMBUSTION TURBINE #1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.2	GEN300011 1-ST FRANCIS UNIT 2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.2	GEN549893 2-SOUTHWEST 2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.2	GEN505432 1-SIKESTON
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.2	GEN300011 1-ST FRANCIS UNIT 2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.2	GEN645025 5-NORTH OMAHA 5
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.2	GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.2	GEN629074 1-ARNOLD LOWSIDE OF GSU XFMR
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.2	GEN541163 1-ARIES COMBUSTION TURBINE #1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04266	99.2	P13:069-138:WERE:HOOV_TX-3::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04274	99.2	P12:069:WERE:COWS-SUNS_69F::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0428	99.2	P12:069:WERE:ALLE-TIOG_69::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.2	P12:069:WERE:MEAD-PLAZ_69::

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04201	99.2	P12:115:WERE:SPCKJ-WEMP_115F::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.2	P12:069:WERE:COWS-SUNS_69F::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04254	99.2	P12:069:WERE:ALLE-TIOG_69::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.2	P12:069:WERE:MEAD-PLAZ_69::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04175	99.2	P12:115:WERE:SPCKJ-WEMP_115F::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04239	99.2	P13:069-138:WERE:HOOV_TX-3::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04323	99.2	CLIFTON - CONCORDIA 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0431	99.2	AUBURN ROAD - SWISSVALE 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04296	99.2	IATAN - NASHUA 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04451	99.2	FT SMITH - MUSKOGEE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.2	SHERBURNE CO 345/24.0KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04313	99.2	7JASPER 345.00 345/161KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.2	THOMAS HILL 161/22.0KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04323	99.2	CLIFTON - CONCORDIA 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04313	99.2	5JASPER 161.00 - LAMAR 161KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04126	99.2	7MCCREDIE 345.00 - 7OVERTON 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0427	99.2	IATAN - NASHUA 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04425	99.2	FT SMITH - MUSKOGEE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04284	99.2	AUBURN ROAD - SWISSVALE 230KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04297	99.2	CLIFTON - CONCORDIA 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04287	99.2	5JASPER 161.00 - LAMAR 161KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04297	99.2	CLIFTON - CONCORDIA 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.2	SHERBURNE CO 345/24.0KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.2	THOMAS HILL 161/22.0KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.041	99.2	7MCCREDIE 345.00 - 7OVERTON 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04287	99.2	7JASPER 345.00 345/161KV TRANSFORMER CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	ABILENE ENERGY CENTER 115/34.5KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	ABILENE ENERGY CENTER 115/34.5KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	GEN635213 3-NEAL UNIT 3
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	GEN344894 1-1LAB G1 20.000
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	GEN659110 1-LELAND OLDS UNIT1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	GEN600000 1-SHERBURNECNTY G1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	GEN300013 1-HOLDEN UNIT 2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	GEN300012 1-HOLDEN UNIT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	GEN300010 1-ST FRANCIS UNIT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	GEN645042 2-CASS COUNTY 2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	GEN300015 1-1SGPDEL 18.000
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	GEN600001 2-SHERBURNE CNTY G2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	GEN344896 3-1LAB G3 20.000
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	GEN344895 2-1LAB G2 20.000
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	GEN645041 1-CASS COUNTY 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	GEN344897 4-1LAB G4 20.000
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	GEN543078 1-PAOLA COMBUSTION TURBINES
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	GEN300015 1-1SGPDEL 18.000
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	GEN300010 1-ST FRANCIS UNIT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	GEN344897 4-1LAB G4 20.000
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	GEN344895 2-1LAB G2 20.000
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	GEN344894 1-1LAB G1 20.000
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	GEN645041 1-CASS COUNTY 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	GEN600000 1-SHERBURNECNTY G1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	GEN600001 2-SHERBURNE CNTY G2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	GEN659110 1-LELAND OLDS UNIT1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	GEN543078 1-PAOLA COMBUSTION TURBINES

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	GEN300013 1-HOLDEN UNIT 2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	GEN645042 2-CASS COUNTY 2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	GEN344896 3-1LAB G3 20.000
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	GEN300012 1-HOLDEN UNIT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	P12:115:WERE:ANZI-FTJU_115::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04273	99.1	P13:069-138:WERE:BUTL_TX-1::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04268	99.1	P12:138:WERE:17TH-CANA_138::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04323	99.1	P12:115:WERE:KNOB-MKEC_115::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04323	99.1	P12:115:WERE-MKEC:CLIFTON-KNOBHILL::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04269	99.1	P12:138:WERE:NORT-WEAV_138::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04283	99.1	P12:138:OKGE:3TERM2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04263	99.1	P12:115:WERE:INDA-HOYT_115::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04297	99.1	P12:115:WERE:KNOB-MKEC_115::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04246	99.1	P12:138:OKGE:3TERM2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	P12:115:WERE:ANZI-FTJU_115::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04243	99.1	P12:138:WERE:NORT-WEAV_138::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04236	99.1	P12:115:WERE:INDA-HOYT_115::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04242	99.1	P12:138:WERE:17TH-CANA_138::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04297	99.1	P12:115:WERE-MKEC:CLIFTON-KNOBHILL::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04247	99.1	P13:069-138:WERE:BUTL_TX-1::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04482	99.1	DELAWARE - NEOSHO 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04307	99.1	CIMARRON - DRAPER LAKE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.043	99.1	GRAND ISLAND - MCCOOL 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04186	99.1	MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04387	99.1	RENO COUNTY - SUMMIT 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04323	99.1	CLIFTON - GREENLEAF 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04299	99.1	HAWTHORN - NASHUA 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04381	99.1	BROOKLINE - FLINT CREEK 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04284	99.1	MORISNT4 138.00 - STILLWATER 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04274	99.1	ALTOONA - BUTLER 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04482	99.1	DELAWARE - NEOSHO 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04381	99.1	BROOKLINE - FLINT CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04349	99.1	DELL 500 - INDEPENDENCE 500KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04313	99.1	7SPORTSMAN - BLACKBERRY 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99.1	4SIOUX 1 138.00 138/18.0KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04279	99.1	CIMARRON - DRAPER LAKE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04297	99.1	CLIFTON - GREENLEAF 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04355	99.1	BROOKLINE - FLINT CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04158	99.1	MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04247	99.1	MORISNT4 138.00 - STILLWATER 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0436	99.1	RENO COUNTY - SUMMIT 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	ALTOONA - BUTLER 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04273	99.1	GRAND ISLAND - MCCOOL 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04272	99.1	HAWTHORN - NASHUA 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04458	99.1	DELAWARE - NEOSHO 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04289	99.1	7SPORTSMAN - BLACKBERRY 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04323	99.1	DELL 500 - INDEPENDENCE 500KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04355	99.1	BROOKLINE - FLINT CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99.1	4SIOUX 1 138.00 138/18.0KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04458	99.1	DELAWARE - NEOSHO 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04394	99.1	GEN542955 1-LACYGNE UNIT #1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04394	99.1	GEN542962 2-IATAN UNIT #2
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04368	99.1	GEN542962 2-IATAN UNIT #2
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04368	99.1	GEN542955 1-LACYGNE UNIT #1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04295	99.06984	FLINT CREEK - SILOAM SPRINGS TAP 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04295	99.06984	FLINT CREEK - SILOAM SPRINGS TAP 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04269	99.06172	FLINT CREEK - SILOAM SPRINGS TAP 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04269	99.06172	FLINT CREEK - SILOAM SPRINGS TAP 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	GEN659354 1-DEERCREK STG18.000
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	GEN541154 3-RALPH GREEN GENERATING UNIT #3
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	GEN509394 1-FLINT CREEK
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	GEN542964 8-HAWTHORN COMBUSTION TURBINE #8
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	GEN659118 1-LARAMIE RIVER UNIT1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	GEN659353 1-DEERCREK CTG18.000
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	GEN600006 1-AS KING
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	GEN541170 4-LAKERD#4 13.800
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	GEN547649 1-ASBURY UNIT #1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	GEN600004 2-PRAIRIE ISLAND G2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	GEN532661 1-LAWRENCE ENERGY CENTER UNIT 3
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	GEN532671 1-TECUMSEH ENERGY CENTER UNIT 7
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	GEN600003 1-PRAIRIE ISLAND G1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	GEN542963 7-HAWTHORN COMBUSTION TURBINE #7
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	GEN600005 1-MONTICELLO
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99	GEN600005 1-MONTICELLO
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99	GEN509394 1-FLINT CREEK
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99	GEN600006 1-AS KING
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99	GEN600004 2-PRAIRIE ISLAND G2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99	GEN659118 1-LARAMIE RIVER UNIT1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99	GEN635213 3-NEAL UNIT 3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99	GEN532661 1-LAWRENCE ENERGY CENTER UNIT 3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99	GEN547649 1-ASBURY UNIT #1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99	GEN542963 7-HAWTHORN COMBUSTION TURBINE #7
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99	GEN541154 3-RALPH GREEN GENERATING UNIT #3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99	GEN532671 1-TECUMSEH ENERGY CENTER UNIT 7
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99	GEN542964 8-HAWTHORN COMBUSTION TURBINE #8
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99	GEN541170 4-LAKERD#4 13.800
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99	GEN600003 1-PRAIRIE ISLAND G1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04265	99	P12:138:WERE:COWS-GECT_138::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	P12:069:WERE:MIDI-SKEL_69::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04263	99	P12:138:WERE:GORD-MAIZ_138::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04263	99	P12:138:WERE:CHIS-MAIZ_138::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	P12:069:WERE:MIDI-MOBI_69::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	P12:115:MIDW:::RICE-WHEATLANDS
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	99	P12:115:WERE:WMCP-MWE_115::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04276	99	P12:115:WERE:MCDO-WILD_115::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04239	99	P12:138:WERE:COWS-GECT_138::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04237	99	P12:138:WERE:GORD-MAIZ_138::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0425	99	P12:115:WERE:MCDO-WILD_115::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99	P12:115:MIDW:::RICE-WHEATLANDS
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99	P12:115:WERE:WMCP-MWE_115::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04249	99	P12:069:WERE:MIDI-MOBI_69::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	99	P12:069:WERE:MIDI-SKEL_69::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04237	99	P12:138:WERE:CHIS-MAIZ_138::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04263	99	MAIZE - MAIZEE 4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04323	99	G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04281	99	G1524G1525 345.00 - THISTLE7 345.00 345KV CKT 2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04263	99	CHISHOLM - MAIZEE 4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04304	99	REDBUD - RIVERSIDE STATION 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04263	99	EVANS ENERGY CENTER NORTH - MAIZEW 4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04281	99	G1524G1525 345.00 - THISTLE7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04343	99	AUBURN ROAD - OLDAUBU3 115.00 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04268	99	EAST STREET - LANG 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04263	99	HOYT - NORTHLAND 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04323	99	GREENLEAF - KNOB HILL 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04263	99	MAIZE - MAIZEW 4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04332	99	PITTSBURG - SEMINOLE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04322	99	8BHAM STEEL 500.00 - WEST MEMPHIS 500 500KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04332	99	PITTSBURG - SEMINOLE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04304	99	REDBUD - RIVERSIDE STATION 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04346	99	7JASPER 345.00 - MORGAN 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04316	99	AUBURN ROAD - OLDAUBU3 115.00 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04241	99	EAST STREET - LANG 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04237	99	CHISHOLM - MAIZEE 4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04305	99	PITTSBURG - SEMINOLE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04236	99	HOYT - NORTHLAND 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04253	99	G1524G1525 345.00 - THISTLE7 345.00 345KV CKT 2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04237	99	MAIZE - MAIZEE 4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04276	99	REDBUD - RIVERSIDE STATION 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04253	99	G1524G1525 345.00 - THISTLE7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04297	99	GREENLEAF - KNOB HILL 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04296	99	G14-057T 345.00 - LAWTON EASTSIDE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04237	99	EVANS ENERGY CENTER NORTH - MAIZEW 4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04237	99	MAIZE - MAIZEW 4 138.00 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04296	99	8BHAM STEEL 500.00 - WEST MEMPHIS 500 500KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04319	99	7JASPER 345.00 - MORGAN 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04276	99	REDBUD - RIVERSIDE STATION 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04305	99	PITTSBURG - SEMINOLE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98.9	GEN300016 1-1G1GPDEL 18.000
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98.9	GEN549890 1-SOUTHWEST 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98.9	GEN345670 1-1RUSH G1 18.000
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98.9	GEN345671 2-1RUSH G2 18.000
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98.9	GEN645024 4-NORTH OMAHA 4
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	GEN300016 1-1G1GPDEL 18.000
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	GEN549890 1-SOUTHWEST 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	GEN345670 1-1RUSH G1 18.000
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	GEN645024 4-NORTH OMAHA 4
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	GEN345671 2-1RUSH G2 18.000
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	GEN659354 1-DEERCREK STG18.000
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	GEN659353 1-DEERCREK CTG18.000
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98.9	P12:115:WERE:3VAN-HEC_115F::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98.9	P12:069:WERE:ALLE-ATHE_69::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98.9	P12:069:WERE:MURR-MIDL_69::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98.9	P12:069:WERE:GLEN-OAKL_69::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04266	98.9	P12:115:WERE:COLI-HOYT_115::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98.9	P12:069:WERE:CANA-MIDL_69::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04885	98.9	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04274	98.9	P12:069:WERE:17TH-RIPL_69::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98.9	P12:115:WERE:SMOK-SUMM_115P::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	P12:069:WERE:GLEN-OAKL_69::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04249	98.9	P12:069:WERE:ALLE-ATHE_69::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0424	98.9	P12:115:WERE:COLI-HOYT_115::

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	P12:115:WERE:3VAN-HEC_115F::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	P12:115:WERE:SMOK-SUMM_115P::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	P12:069:WERE:CANA-MIDL_69::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	P12:069:WERE:MURR-MIDL_69::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	P12:069:WERE:17TH-RIPL_69::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04267	98.9	30TH & PRAIRIE - LANG 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04885	98.9	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04885	98.9	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04274	98.9	BORDER 7345.00 - TUCO INTERCHANGE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04351	98.9	PITTSBURG - VALLIANT 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04318	98.9	ELMCREEK7 345.00 - SUMMIT 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04885	98.9	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04281	98.9	BUCKNER7 345.00 - HOLCOMB 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04318	98.9	ELMCREEK7 345.00 (ELMCREEK T1) 345/230/13.8KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04314	98.9	CLARK - LAMAR 161KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04281	98.9	BUCKNER7 345.00 - HOLCOMB 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98.9	BIG STONE 230/24.0KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98.9	7CALAWY 1 345.00 345/25.0KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04351	98.9	PITTSBURG - VALLIANT 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98.9	ALMA 161 161/24.0KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04274	98.9	BORDER 7345.00 - TUCO INTERCHANGE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04817	98.9	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04291	98.9	ELMCREEK7 345.00 (ELMCREEK T1) 345/230/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04325	98.9	PITTSBURG - VALLIANT 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04817	98.9	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04241	98.9	30TH & PRAIRIE - LANG 115KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	BORDER 7345.00 - TUCO INTERCHANGE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04817	98.9	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04254	98.9	BUCKNER7 345.00 - HOLCOMB 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04291	98.9	ELMCREEK7 345.00 - SUMMIT 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	BORDER 7345.00 - TUCO INTERCHANGE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04254	98.9	BUCKNER7 345.00 - HOLCOMB 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04288	98.9	CLARK - LAMAR 161KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04325	98.9	PITTSBURG - VALLIANT 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	ALMA 161 161/24.0KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	BIG STONE 230/24.0KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.9	7CALAWY 1 345.00 345/25.0KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98.8	P12:115:WERE:PHLP-SUMM_115::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04272	98.8	P12:069:WERE:TIMJ-WEAV_69::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04276	98.8	P12:115:WERE:JARB-PENT_115::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98.8	P12:069:WERE:ARNO-KERE-WALN_69::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.8	P12:069:WERE:ARNO-KERE-WALN_69::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04246	98.8	P12:069:WERE:TIMJ-WEAV_69::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04249	98.8	P12:115:WERE:JARB-PENT_115::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.8	P12:115:WERE:PHLP-SUMM_115::
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04394	98.5	GEN542956 2-LACYGNE UNIT #2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98.4	BASE CASE
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98.4	BASE CASE
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04368	98.4	GEN542956 2-LACYGNE UNIT #2
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04394	98.3	GEN542951 5-HAWTHORN UNIT #5
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04368	98.3	GEN542951 5-HAWTHORN UNIT #5
08ALL	2	20WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05495	98.3	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	20WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0546	98.2	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04898	98.1	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04394	98.1	GEN542957 1-IATAN UNIT #1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04368	98.1	GEN542957 1-IATAN UNIT #1
08ALL	0	16WP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04867	98	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98	GEN336152 1-WATERFORD UNIT#2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98	GEN303008 1-1BC2 U3
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98	GEN336151 1-WATERFORD UNIT#1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04216	98	G16-061-TAP 345.00 - WOODRING 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04301	98	POST ROCK (POSTROCK T1) 345/230/13.8KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04251	98	TECUMSEH HILL (TECH TX-1) 161/115/12.47KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04251	98	KELLY - TECUMSEH HILL 161KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	98	DOLET HILLS 345/24.0KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04187	98	G16-061-TAP 345.00 - WOODRING 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04224	98	KELLY - TECUMSEH HILL 161KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04224	98	TECUMSEH HILL (TECH TX-1) 161/115/12.47KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04274	98	POST ROCK (POSTROCK T1) 345/230/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	98	DOLET HILLS 345/24.0KV TRANSFORMER CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04399	98	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04297	97.9	DOLET HILLS - SOUTHWEST SHREVEPORT 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04297	97.9	DOLET HILLS - SOUTHWEST SHREVEPORT 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04271	97.9	DOLET HILLS - SOUTHWEST SHREVEPORT 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04271	97.9	DOLET HILLS - SOUTHWEST SHREVEPORT 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04548	97.9	ROSE HILL - WOLF CREEK 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0452	97.9	ROSE HILL - WOLF CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.9	GEN527884 1-CUNNINGHAM GEN #4 22 KV
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.9	GEN532724 1-EVANS ENERGY CENTER GAS TURBINE 2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.9	GEN334071 1-LEWIS CREEK 2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.9	GEN527883 1-CUNNINGHAM GEN #3 22 KV
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.9	GEN501811 1-RODEMACHER UNIT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.9	GEN303007 1-1BC2 U2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.9	GEN524023 1-NICHOLS GEN #3 22 KV
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.9	GEN334070 1-LEWIS CREEK 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.9	GEN303006 1-1BC2 U1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.9	GEN336222 1-LITTLE GYPSY UNIT#2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.9	GEN532723 1-EVANS ENERGY CENTER GAS TURBINE 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.9	GEN303006 1-1BC2 U1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.9	GEN336222 1-LITTLE GYPSY UNIT#2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.9	GEN527883 1-CUNNINGHAM GEN #3 22 KV
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.9	GEN532724 1-EVANS ENERGY CENTER GAS TURBINE 2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.9	GEN336152 1-WATERFORD UNIT#2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.9	GEN524023 1-NICHOLS GEN #3 22 KV
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.9	GEN336151 1-WATERFORD UNIT#1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.9	GEN334070 1-LEWIS CREEK 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.9	GEN303008 1-1BC2 U3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.9	GEN501811 1-RODEMACHER UNIT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.9	GEN334071 1-LEWIS CREEK 2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.9	GEN303007 1-1BC2 U2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.9	GEN532723 1-EVANS ENERGY CENTER GAS TURBINE 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04301	97.9	MORRIS COUNTY - WEST EMPORIA 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04075	97.9	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04263	97.9	MURLEN - QUARRY 161KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04159	97.9	LAWRENCE HILL - SWISSVALE 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04284	97.9	103RD & ROKEBY - SUB 3458 NEB CTY 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0426	97.9	CEDAR CREEK - WEST GARDNER 161KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04334	97.9	BLUSTEM7 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04256	97.9	MIDLAND JUNCTION - TONGA TAP 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04254	97.9	SLOSTVALY 161.00 - TRUMAN 161KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04268	97.9	OKLAUNION - TUCO INTERCHANGE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.9	ESSEX UNIT 2 500/18.0KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04268	97.9	OKLAUNION - TUCO INTERCHANGE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04284	97.9	103RD & ROKEBY - SUB 3458 NEB CTY 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04228	97.9	SLOSTVALY 161.00 - TRUMAN 161KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04047	97.9	OPENSKY7 345.00 - RANCHRD7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04274	97.9	MORRIS COUNTY - WEST EMPORIA 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04234	97.9	CEDAR CREEK - WEST GARDNER 161KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04134	97.9	LAWRENCE HILL - SWISSVALE 230KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04236	97.9	MURLEN - QUARRY 161KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04241	97.9	OKLAUNION - TUCO INTERCHANGE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0423	97.9	MIDLAND JUNCTION - TONGA TAP 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04257	97.9	103RD & ROKEBY - SUB 3458 NEB CTY 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04307	97.9	BLUSTEM7 345.00 - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.9	ESSEX UNIT 2 500/18.0KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04257	97.9	103RD & ROKEBY - SUB 3458 NEB CTY 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04241	97.9	OKLAUNION - TUCO INTERCHANGE 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04336	97.9	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN514939 1-HORSESHOE LAKE 8G
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN539670 4-JUDSON LARGE GENERATOR
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN336464 1-MICHOUD UNIT #3
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN527161 1-MUSTANG GEN #1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN532720 1-CANEYWF1 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN527162 1-MUSTANG GEN #2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN335614 1-WILLOW GLENN UNIT#4
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN527163 1-MUSTANG GEN #3 22 KV
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN587213 1-G16-032-GEN10.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN527164 1-MUSTANG GEN #4 22 KV
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN527165 1-Mustang Gen #5
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN527882 1-CUNNINGHAM GEN #2 20 KV
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN525494 1-PLANT X GEN #4 20 KV
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN562723 1-G15_030_3 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN336801 1-BAXTER WILSON UNIT #1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN334433 1-SABINE UNIT 3
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN336191 1-LITTLE GYPSY UNIT#3
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN532733 1-GILL ENERGY CENTER UNIT 3
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN587163 1-G16-022-GEN10.6500
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	GEN532734 1-GILL ENERGY CENTER UNIT 4
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN532734 1-GILL ENERGY CENTER UNIT 4
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN587163 1-G16-022-GEN10.6500
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN532733 1-GILL ENERGY CENTER UNIT 3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN334433 1-SABINE UNIT 3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN587213 1-G16-032-GEN10.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN527163 1-MUSTANG GEN #3 22 KV

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN527882 1-CUNNINGHAM GEN #2 20 KV
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN336801 1-BAXTER WILSON UNIT #1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN527162 1-MUSTANG GEN #2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN532720 1-CANEYWF1 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN336464 1-MICHOUD UNIT #3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN527884 1-CUNNINGHAM GEN #4 22 KV
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN527161 1-MUSTANG GEN #1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN527165 1-Mustang Gen #5
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN527164 1-MUSTANG GEN #4 22 KV
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN562723 1-G15_030_3 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN335614 1-WILLOW GLENN UNIT#4
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN514939 1-HORSESHOE LAKE 8G
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	GEN525494 1-PLANT X GEN #4 20 KV
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04201	97.8	MOUNDRIDGE - SPRING CREEK JUNCTION 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	ST FRANCIS 161/16.0KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	ST FRANCIS 2 161/16.0KV TRANSFORMER CKT 2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	ST FRANCIS - ST FRANCIS 1 161KV CKT Z1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.8	ST FRANCIS 345/161KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04175	97.8	MOUNDRIDGE - SPRING CREEK JUNCTION 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	ST FRANCIS 345/161KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	ST FRANCIS 161/16.0KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	ST FRANCIS 2 161/16.0KV TRANSFORMER CKT 2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.8	ST FRANCIS - ST FRANCIS 1 161KV CKT Z1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0463	97.8	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04599	97.8	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05387	97.8	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.7	GEN334441 1-SABINE UNIT 5
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.7	GEN335204 1-NELSON UNIT 4
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.7	GEN338143 1-INDEPENDENCE UNIT #1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.7	GEN511848 1-SOUTHWESTERN STATION #3
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.7	GEN563022 1-G15066_3 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.7	GEN337041 1-GERALD ANDRUS
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.7	GEN335204 1-NELSON UNIT 4
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.7	GEN563022 1-G15066_3 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.7	GEN539670 4-JUDSON LARGE GENERATOR
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.7	GEN336191 1-LITTLE GYPSY UNIT#3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.7	GEN511848 1-SOUTHWESTERN STATION #3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.7	GEN338143 1-INDEPENDENCE UNIT #1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.7	GEN337041 1-GERALD ANDRUS
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.7	ESSEX UNIT 2 500/18.0KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.7	WHITE BLUFF 500/26.0KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.7	CHOUTEAU 161/16.0KV TRANSFORMER CKT 11
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.7	CHOUTEAU 161/16.0KV TRANSFORMER CKT 12
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.7	CHOUTEAU 161/16.0KV TRANSFORMER CKT 10
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.7	ESSEX UNIT 2 500/18.0KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.7	CHOUTEAU 161/16.0KV TRANSFORMER CKT 12
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.7	CHOUTEAU 161/16.0KV TRANSFORMER CKT 11
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.7	WHITE BLUFF 500/26.0KV TRANSFORMER CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05543	97.7	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05512	97.7	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05352	97.7	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.6	GEN562772 1-G15034_3 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.6	GEN515484 1-CHSHMVW1 0.5750
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.6	GEN526334 1-JONES_4 116.500
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.6	GEN336831 1-BAXTER WILSON SES
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.6	GEN336251 1-NINEMILE POINT UNIT#4
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.6	GEN563182 1-G15083_3 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.6	GEN515479 1-CHSHMVE1 0.5750
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.6	GEN562658 1-G15_001_3 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.6	GEN533141 1-SLATEGEN1 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.6	GEN526333 1-JONES GEN #3 21 KV
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.6	GEN338146 1-INDEPENDENCE UNIT #2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.6	GEN526332 1-JONES GEN #2 21 KV
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.6	GEN526331 1-JONES GEN #1 22 KV
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.6	GEN562691 1-G15_015_3 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	GEN334441 1-SABINE UNIT 5
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	GEN533141 1-SLATEGEN1 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	GEN562772 1-G15034_3 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	GEN526332 1-JONES GEN #2 21 KV
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	GEN562691 1-G15_015_3 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	GEN526333 1-JONES GEN #3 21 KV
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	GEN515479 1-CHSHMVE1 0.5750
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	GEN562658 1-G15_001_3 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	GEN526331 1-JONES GEN #1 22 KV
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	GEN336251 1-NINEMILE POINT UNIT#4
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	GEN338146 1-INDEPENDENCE UNIT #2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	GEN515484 1-CHSHMVW1 0.5750
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	GEN563182 1-G15083_3 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	GEN336831 1-BAXTER WILSON SES
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	GEN526334 1-JONES_4 116.500

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.6	FINNEY SWITCHING STATION - PSCO LAMAR DC TIE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04844	97.6	JEFFREY ENERGY CENTER - MORRIS COUNTY 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04233	97.6	EASTOWN7 345.00 - IATAN 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.6	FINNEY SWITCHING STATION - PSCO LAMAR DC TIE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	FINNEY SWITCHING STATION - PSCO LAMAR DC TIE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04207	97.6	EASTOWN7 345.00 - IATAN 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04815	97.6	JEFFREY ENERGY CENTER - MORRIS COUNTY 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	FINNEY SWITCHING STATION - PSCO LAMAR DC TIE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.6	CHOUTEAU 161/16.0KV TRANSFORMER CKT 10
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04256	97.5	LAWRENCE HILL - MIDLAND JUNCTION 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04256	97.5	MIDLAND JUNCTION (MIDJ TX-1) 230/115/18.0KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0423	97.5	MIDLAND JUNCTION (MIDJ TX-1) 230/115/18.0KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04567	97.5	BENTON - WOLF CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04538	97.5	BENTON - WOLF CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.5	GEN527901 1-HOBBS PLANT #1 (CT)
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.5	GEN587483 1-G16-071-GEN10.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.5	GEN334440 1-SABINE UNIT 4
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.5	GEN562611 1-G14_064_3 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.5	GEN525844 1-ELK_1 118.000
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.5	GEN587413 1-G16-061-GEN10.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.5	GEN336252 1-NINEMILE POINT UNIT#5
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.5	GEN527902 1-HOBBS PLANT #2 (CT)
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.5	GEN501812 1-RODEMACHER UNIT 2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.5	GEN562611 1-G14_064_3 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.5	GEN587413 1-G16-061-GEN10.6900

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.5	GEN587483 1-G16-071-GEN10.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.5	GEN527902 1-HOBBS PLANT #2 (CT)
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.5	GEN336252 1-NINEMILE POINT UNIT#5
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.5	GEN334440 1-SABINE UNIT 4
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.5	GEN527901 1-HOBBS PLANT #1 (CT)
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.5	GEN501812 1-RODEMACHER UNIT 2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04101	97.5	BENTON - ROSE HILL 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04183	97.5	CLINTON - MONTROSE 161KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04531	97.5	ARKANSAS NUCLEAR ONE - FT SMITH 500KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04183	97.5	CLINTON - MONTROSE 161KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04531	97.5	ARKANSAS NUCLEAR ONE - FT SMITH 500KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04157	97.5	CLINTON - MONTROSE 161KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04505	97.5	ARKANSAS NUCLEAR ONE - FT SMITH 500KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04157	97.5	CLINTON - MONTROSE 161KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04505	97.5	ARKANSAS NUCLEAR ONE - FT SMITH 500KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04733	97.5	AXTELL - G16-050-TAP 345.00 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04705	97.5	AXTELL - G16-050-TAP 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0423	97.4	LAWRENCE HILL - MIDLAND JUNCTION 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.4	GEN562882 1-G15047_3 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.4	GEN335206 1-NELSON UNIT 6
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.4	GEN525845 1-ELK_2 1 18.000
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.4	GEN527166 1-MUSTANG_6 118.000
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.4	GEN587463 1-G16-068-GEN10.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.4	GEN335206 1-NELSON UNIT 6
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.4	GEN525844 1-ELK_1 118.000
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.4	GEN562882 1-G15047_3 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.4	GEN525845 1-ELK_2 1 18.000

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.4	GEN527166 1-MUSTANG_6 118.000
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04301	97.4	MORRIS COUNTY (MORR TX-2) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04204	97.4	MORRIS COUNTY - UNIONRG6 230.00 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04082	97.4	PLEASANT HILL - SIBLEY 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04178	97.4	MORRIS COUNTY - UNIONRG6 230.00 230KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04074	97.4	BENTON - ROSE HILL 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04056	97.4	PLEASANT HILL - SIBLEY 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04274	97.4	MORRIS COUNTY (MORR TX-2) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04307	97.3	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.3	GEN523971 1-HARRINGTON GEN #1 24 KV
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.3	GEN337652 1-WHITE BLUFF UNIT #1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.3	GEN532721 1-EVANS ENERGY CENTER UNIT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.3	GEN501813 1-RODEMACHER UNIT 3
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.3	GEN523972 1-HARRINGTON GEN #2 24 KV
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.3	GEN531447 1-HOLCOMB GENERATOR
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.3	GEN562992 1-G15063_3 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.3	GEN532725 1-EVANS ENERGY CENTER GAS TURBINE 3
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.3	GEN523973 1-HARRINGTON GEN #3 24 KV
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.3	GEN337653 1-WHITE BLUFF UNIT #2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.3	GEN523972 1-HARRINGTON GEN #2 24 KV
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.3	GEN523973 1-HARRINGTON GEN #3 24 KV
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.3	GEN562992 1-G15063_3 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.3	GEN501813 1-RODEMACHER UNIT 3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.3	GEN531447 1-HOLCOMB GENERATOR
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.3	GEN337652 1-WHITE BLUFF UNIT #1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.3	GEN587463 1-G16-068-GEN10.6900

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.3	GEN532725 1-EVANS ENERGY CENTER GAS TURBINE 3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.3	GEN532721 1-EVANS ENERGY CENTER UNIT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.3	GEN523971 1-HARRINGTON GEN #1 24 KV
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04307	97.3	P13:115-230:WERE:EMAN_TX-1::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04281	97.3	P13:115-230:WERE:EMAN_TX-1::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0439	97.3	G15-016T 161.00 - MARMTNE5 161KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.3	4REMINGTON 138.00 - ASGI1705 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.3	GRAND GULF 500/22.0KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04364	97.3	G15-016T 161.00 - MARMTNE5 161KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.3	GRAND GULF 500/22.0KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.3	4REMINGTON 138.00 - ASGI1705 138.00 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04394	97.3	GEN300003 1-THOMAS HILL UNIT 3
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04368	97.3	GEN300003 1-THOMAS HILL UNIT 3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04281	97.2	EAST MANHATTAN - JEFFREY ENERGY CENTER 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.2	GEN533126 1-FR2W2WF1 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.2	GEN533123 1-FR2E1WF1 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.2	GEN533125 1-FR2W1WF1 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.2	GEN533124 1-FR2E2WF1 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.2	GEN533123 1-FR2E1WF1 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.2	GEN533126 1-FR2W2WF1 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.2	GEN533124 1-FR2E2WF1 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.2	GEN533125 1-FR2W1WF1 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.2	GEN337653 1-WHITE BLUFF UNIT #2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.2	4OSAGEWIND 138.00 - 4REMINGTON 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.2	4OSAGEWIND 138.00 - 4REMINGTON 138.00 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.1	GEN514806 1-SOONER UNIT 2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.1	GEN527903 1-HOBBS PLANT #3 (ST)
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.1	GEN514805 1-SOONER UNIT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.1	GEN514806 1-SOONER UNIT 2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.1	GEN514805 1-SOONER UNIT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.1	GEN527903 1-HOBBS PLANT #3 (ST)
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97.1	ASGI1708MN 138.00 - ASGI1708TP 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	97.1	ASGI1708MN 138.00 - ASGI1708TP 138.00 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04539	97.1	P12:115:WERE:LANG-TECH_115P::
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04512	97.1	P12:115:WERE:LANG-TECH_115P::
08ALL	2	17G	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05037	97	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05003	97	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	97	GEN562902 1-G15052_3 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04075	97	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04047	97	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04539	97	P12:115:WERE:FOUR-LANG_115F::
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04512	97	P12:115:WERE:FOUR-LANG_115F::
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04251	96.9	LAWRENCE HILL (LAWH TX-3) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04225	96.9	LAWRENCE HILL (LAWH TX-3) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.9	GEN335831 1-RIVERBEND UNIT#1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.9	GEN335831 1-RIVERBEND UNIT#1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.9	GEN562902 1-G15052_3 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.9	NEW MADRID 161/22.0KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.9	NEW MADRID 345/22.0KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.9	DELL 500 - ESSEX UNIT 2 500KV CKT Z1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.9	NEW MADRID 345/22.0KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.9	NEW MADRID 161/22.0KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.9	DELL 500 - ESSEX UNIT 2 500KV CKT Z1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04539	96.9	LANG - READING LAKE 115KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04733	96.9	G16-050-TAP 345.00 - POST ROCK 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04512	96.9	LANG - READING LAKE 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.8	GEN336153 1-WATERFORD UNIT#3
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04233	96.8	WEST GARDNER (WGARD 11) 345/161/13.8KV TRANSFORMER CKT 11
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04207	96.8	WEST GARDNER (WGARD 11) 345/161/13.8KV TRANSFORMER CKT 11
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04399	96.8	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04705	96.8	G16-050-TAP 345.00 - POST ROCK 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04336	96.8	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04785	96.7	LACYGNE - NEOSHO 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0476	96.7	LACYGNE - NEOSHO 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.7	GEN532740 1-EMPORIA ENERGY CENTER UNITS 1 & 2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.7	GEN501801 1-DOLET HILLS UNIT1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.7	GEN337910 1-ARKANSAS NUCLEAR ONE UNIT #1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.7	GEN532741 3-EMPORIA ENERGY CENTER UNITS 3 & 4
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.7	GEN532740 1-EMPORIA ENERGY CENTER UNITS 1 & 2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.7	GEN337910 1-ARKANSAS NUCLEAR ONE UNIT #1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.7	GEN501801 1-DOLET HILLS UNIT1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.7	GEN336153 1-WATERFORD UNIT#3
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.7	GEN532741 3-EMPORIA ENERGY CENTER UNITS 3 & 4
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04246	96.7	87th STREET - STRANGER CREEK 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04219	96.7	87th STREET - STRANGER CREEK 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04539	96.6	OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04512	96.6	OSAGE CITY JUNCTION SWITCHING STATION - READING LAKE 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.5	GEN525561 1-TOLK GEN #1 24 KV
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.5	GEN525562 1-TOLK GEN #2 24 KV
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.5	GEN336821 1-GRAND GULF UNIT
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.5	GEN562429 1-G13-029 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.5	GEN336821 1-GRAND GULF UNIT
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.5	GEN525562 1-TOLK GEN #2 24 KV
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.5	GEN562429 1-G13-029 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.5	GEN525561 1-TOLK GEN #1 24 KV
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04394	96.5	GEN640009 1-COOPER NUCLEAR STATION
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04394	96.5	GEN645012 2-NEBRASKA CITY 2
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04368	96.5	GEN645012 2-NEBRASKA CITY 2
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04368	96.5	GEN640009 1-COOPER NUCLEAR STATION
08NR	2	17G	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04913	96.4	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08NR	0	17G	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04881	96.4	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04257	96.4	AUBURN ROAD (AUBN TX-1) 230/115/14.4KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04231	96.4	AUBURN ROAD (AUBN TX-1) 230/115/14.4KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.4	GEN337911 1-ARKANSAS NUCLEAR ONE UNIT #2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.4	GEN337911 1-ARKANSAS NUCLEAR ONE UNIT #2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04056	96.4	PECULIAR - PLEASANT HILL 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04031	96.4	PECULIAR - PLEASANT HILL 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04394	96.3	GEN645011 1-NEBRASKA CITY 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04368	96.3	GEN645011 1-NEBRASKA CITY 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04766	96.3	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04766	96.3	CLEVELAND - TULSA NORTH 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04756	96.3	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04756	96.3	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.2	GEN563242 1-G15090_3 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.2	GEN587503 1-G73-073-GEN10.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.2	GEN562718 1-G15_024_3 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.2	GEN562720 1-G15_025_3 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.2	GEN562718 1-G15_024_3 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.2	GEN563242 1-G15090_3 0.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.2	GEN587503 1-G73-073-GEN10.6900
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96.2	GEN562720 1-G15_025_3 0.6900
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04272	96.2	P12:345:GRDA:CHOUTEAU-SPORTSMANACRES
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04245	96.2	P12:345:GRDA:CHOUTEAU-SPORTSMANACRES
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	96.1	GEN532651 1-JEFFREY ENERGY CENTER UNIT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04389	96.1	HOYT (HOYT TX-1) 345/115/14.4KV TRANSFORMER CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04362	96.1	HOYT (HOYT TX-1) 345/115/14.4KV TRANSFORMER CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04394	96.1	GEN541151 3-SIBLEY GENERATING UNIT #3
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04368	96.1	GEN541151 3-SIBLEY GENERATING UNIT #3
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04383	96.1	DBL-THIS-G15
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04351	96.1	DBL-THIS-G15
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	96	GEN532651 1-JEFFREY ENERGY CENTER UNIT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04075	96	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04539	96	OSAGE CITY JUNCTION SWITCHING STATION - SCRNTJS3 115.00 115KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04539	96	SCRANTON - SCRNTJS3 115.00 115KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04512	96	OSAGE CITY JUNCTION SWITCHING STATION - SCRNTJS3 115.00 115KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04512	96	SCRANTON - SCRNTJS3 115.00 115KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04047	95.9	G15052_T 345.00 - ROSE HILL 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04088	95.8	STILWELL - WEST GARDNER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04039	95.8	PECULIAR - STILWELL 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04063	95.8	STILWELL - WEST GARDNER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04211	95.7	SWISSVALE - TECUMSEH HILL 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04211	95.7	TECUMSEH HILL (TECH TX-3) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04185	95.7	TECUMSEH HILL (TECH TX-3) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04185	95.7	SWISSVALE - TECUMSEH HILL 230KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04013	95.7	PECULIAR - STILWELL 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04539	95.7	SCRANTON - SCRNTJN3 115.00 115KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04539	95.7	FOUR CORNERS - SCRNTJN3 115.00 115KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04512	95.7	SCRANTON - SCRNTJN3 115.00 115KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04512	95.7	FOUR CORNERS - SCRNTJN3 115.00 115KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04275	95.6	GEN532722 1-EVANS ENERGY CENTER UNIT 2
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04248	95.6	GEN532722 1-EVANS ENERGY CENTER UNIT 2
08ALL	2	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04231	95.6	P12:138:WERE:ELPA-SUMN_138::
08ALL	0	17SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04207	95.6	P12:138:WERE:ELPA-SUMN_138::
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0463	95.6	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04599	95.6	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1
08NR	2	20L	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05884	95.5	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08NR	2	20L	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.05884	95.5	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08NR	0	20L	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0585	95.5	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08NR	0	20L	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0585	95.5	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04543	95.5	DBL-SPRVL-IR
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04394	95.5	P12:138:WERE:BENT-NORT_138P::
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04515	95.5	DBL-SPRVL-IR

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04367	95.5	P12:138:WERE:BENT-NORT_138P::
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04539	95.4	P12:115:WERE:FOUR-TECH_115F::
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04394	95.3	GEN546702 1-NM GEN N1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04368	95.3	GEN546702 1-NM GEN N1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04512	95.3	P12:115:WERE:FOUR-TECH_115F::
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04253	95.3	HUNTERS7 345.00 - WOODRING 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.0432	95.3	SUMMIT - UNIONRG6 230.00 230KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04539	95.3	CARB-KW 3 - FOUR CORNERS 115KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04293	95.3	SUMMIT - UNIONRG6 230.00 230KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04512	95.3	CARB-KW 3 - FOUR CORNERS 115KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04216	95.3	HUNTERS7 345.00 - WOODRING 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04269	95.2	87th STREET - CRAIG 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04242	95.2	87th STREET - CRAIG 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04394	95.1	P12:069:WERE:COWS-HOOVS_69F::
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04394	95.1	P12:115:WERE:EMAN-KSU_115::
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04393	95.1	P12:069:WERE:64TH-NORT_69F::
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04367	95.1	P12:069:WERE:COWS-HOOVS_69F::
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04367	95.1	P12:069:WERE:64TH-NORT_69F::
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04368	95.1	P12:115:WERE:EMAN-KSU_115::
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04539	95.1	CARB-KW 3 - SHAWNEE HEIGHTS 115KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04533	95.1	RENO COUNTY - WICHITA 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04506	95.1	RENO COUNTY - WICHITA 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04394	95	GEN300007 1-NEW MADRID UNIT 2
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04394	95	GEN300006 1-NEW MADRID UNIT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04368	95	GEN300007 1-NEW MADRID UNIT 2
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04368	95	GEN300006 1-NEW MADRID UNIT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04475	95	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04577	95	7JASPER 345.00 - BLACKBERRY 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04512	95	CARB-KW 3 - SHAWNEE HEIGHTS 115KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04444	95	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1	717	717	0.04549	95	7JASPER 345.00 - BLACKBERRY 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	FAIRFAX - PAWNSW4 138.00 138KV CKT 1	304	357	0.8051	96	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	FAIRFAX - PAWNSW4 138.00 138KV CKT 1	304	357	0.8051	95.8	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	FAIRFAX - PAWNSW4 138.00 138KV CKT 1	304	357	0.8051	95.8	ASGI1708TP 138.00 - SHIDLER 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0403	147.6781	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03866	147.5075	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0405	146.8198	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03877	146.646	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03993	146.372	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03829	146.2014	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04012	144.8304	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03838	144.6543	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04058	141.107	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03895	140.9413	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03626	138.193	SUMNER 4 - TIMBJCT4 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.036	138.0701	SUMNER 4 - TIMBJCT4 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03455	138.0237	SUMNER 4 - TIMBJCT4 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03429	137.9017	SUMNER 4 - TIMBJCT4 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04078	137.4237	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03905	137.2491	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0403	136.9928	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03866	136.8264	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03993	136.5322	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03829	136.3633	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03929	136.3017	CRESWELL - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03744	136.1189	CRESWELL - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03929	135.9713	CITY OF WELLINGTON - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03744	135.7885	CITY OF WELLINGTON - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03929	135.7859	P12:069:WERE:BELL-CRSW_69::
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03744	135.6031	P12:069:WERE:BELL-CRSW_69::
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04032	135.5087	TIMBER JUNCTION - UDALL 69KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03842	135.3093	TIMBER JUNCTION - UDALL 69KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04032	135.2735	P12:069:WERE:TIMJ-WEAV_69::
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03842	135.0849	P12:069:WERE:TIMJ-WEAV_69::
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	134.9078	GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	134.7395	GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04357	134.5156	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04032	134.5081	RICHLAND - UDALL 69KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.039	134.4961	CRESWELL - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03842	134.3202	RICHLAND - UDALL 69KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03716	134.314	CRESWELL - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04142	134.3068	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.039	134.1984	CITY OF WELLINGTON - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.039	134.0844	P12:069:WERE:BELL-CRSW_69::
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03716	134.0163	CITY OF WELLINGTON - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03716	133.9024	P12:069:WERE:BELL-CRSW_69::
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03626	133.4658	TIMBJCT4 (TIMJ TX-1) 138/69/13.2KV TRANSFORMER CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04003	133.4215	TIMBER JUNCTION - UDALL 69KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03455	133.2971	TIMBJCT4 (TIMJ TX-1) 138/69/13.2KV TRANSFORMER CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03813	133.2341	TIMBER JUNCTION - UDALL 69KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04032	133.2041	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04003	133.1796	P12:069:WERE:TIMJ-WEAV_69::
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03842	133.0162	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03813	132.9918	P12:069:WERE:TIMJ-WEAV_69::
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03929	132.9897	CITY OF WELLINGTON - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03744	132.8069	CITY OF WELLINGTON - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.039	132.8012	CITY OF WELLINGTON - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03716	132.6189	CITY OF WELLINGTON - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03646	132.5264	SUMNER 4 - TIMBJCT4 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04357	132.4924	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03476	132.3585	SUMNER 4 - TIMBJCT4 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04142	132.2829	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04331	132.1893	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04003	132.1701	RICHLAND - UDALL 69KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03813	131.9818	RICHLAND - UDALL 69KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04117	131.9814	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04032	131.6296	ROSE HILL JUNCTION - WEAVER 69KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03842	131.4416	ROSE HILL JUNCTION - WEAVER 69KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04058	131.3009	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03895	131.1371	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04003	130.8193	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03813	130.6306	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03929	130.5162	BELL - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03744	130.3334	BELL - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04331	130.3132	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04117	130.1047	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0362	129.7926	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03563	129.7897	DBL-G1524-WI
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0345	129.6267	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03396	129.6232	DBL-G1524-WI
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.039	129.2644	BELL - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03929	129.1266	BELL - PECK 69KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03716	129.0826	BELL - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03929	129.007	P12:069:WERE:BELL-MURR_69::
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04003	129.006	ROSE HILL JUNCTION - WEAVER 69KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03744	128.9445	BELL - PECK 69KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03594	128.9324	P12:138:OKGE:3TERM2
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04916	128.8794	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03589	128.8787	MORISNT4 138.00 - STILLWATER 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04916	128.8718	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03744	128.8242	P12:069:WERE:BELL-MURR_69::
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03813	128.8171	ROSE HILL JUNCTION - WEAVER 69KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03406	128.7429	P12:138:OKGE:3TERM2
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03401	128.6896	MORISNT4 138.00 - STILLWATER 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04054	128.6246	TIMBER JUNCTION - UDALL 69KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03864	128.4372	TIMBER JUNCTION - UDALL 69KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04054	128.2731	P12:069:WERE:TIMJ-WEAV_69::

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04743	128.2485	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03704	128.2383	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03704	128.2383	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04743	128.1972	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03951	128.171	CITY OF WELLINGTON - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03864	128.0854	P12:069:WERE:TIMJ-WEAV_69::
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03542	128.0791	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03542	128.0791	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03535	128.0083	DBL-G1524-WI
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04495	128.007	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04743	127.9944	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03766	127.9885	CITY OF WELLINGTON - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04495	127.9613	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0362	127.9246	G15063_T 345.00 - WOODRING 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04743	127.9211	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03597	127.8539	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04743	127.8444	DOMES - MOUND ROAD 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03367	127.8431	DBL-G1524-WI
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03646	127.7995	TIMBJCT4 (TIMJ TX-1) 138/69/13.2KV TRANSFORMER CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03575	127.7879	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04495	127.7577	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0345	127.7558	G15063_T 345.00 - WOODRING 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.039	127.7131	BELL - PECK 69KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03426	127.6856	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04495	127.6852	P12:138:AEPW:MOUNDRD4:SHIDLER4

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03476	127.6309	TIMBJCT4 (TIMJ TX-1) 138/69/13.2KV TRANSFORMER CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03399	127.6186	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04495	127.6068	DOMES - MOUND ROAD 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.039	127.5891	P12:069:WERE:BELL-MURR_69::
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03929	127.566	GILL ENERGY CENTER WEST - PECK 69KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03716	127.5308	BELL - PECK 69KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03716	127.4065	P12:069:WERE:BELL-MURR_69::
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03744	127.3838	GILL ENERGY CENTER WEST - PECK 69KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03569	127.0779	P12:138:OKGE:3TERM2
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03564	127.0125	MORISNT4 138.00 - STILLWATER 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0489	126.9611	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0489	126.9538	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03032	126.9102	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03509	126.901	EL PASO - ROSE HILL 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03381	126.8894	P12:138:OKGE:3TERM2
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03677	126.8289	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03677	126.8289	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03376	126.8243	MORISNT4 138.00 - STILLWATER 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04872	126.7888	SOONER (SOONER5) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03344	126.7385	EL PASO - ROSE HILL 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	126.6995	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03515	126.6694	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03515	126.6694	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04054	126.667	RICHLAND - UDALL 69KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	126.6621	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03575	126.5658	G15066_T 345.00 - SOONER 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04635	126.5538	SOONER (SOONER5) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03864	126.4796	RICHLAND - UDALL 69KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	126.4664	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0403	126.4317	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	126.4291	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	126.3978	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03399	126.3912	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	126.2933	DOMES - MOUND ROAD 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03866	126.2676	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	126.2575	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03549	126.2384	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03993	126.2007	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	126.1636	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03373	126.0739	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	126.0516	DOMES - MOUND ROAD 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03829	126.0293	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	126.0243	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	126.0086	GEN542955 1-LACYGNE UNIT #1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.039	125.9845	GILL ENERGY CENTER WEST - PECK 69KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03597	125.9773	G15063_T 345.00 - WOODRING 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.9762	GEN542962 2-IATAN UNIT #2
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.8416	GEN542955 1-LACYGNE UNIT #1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.8091	GEN542962 2-IATAN UNIT #2
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03426	125.8089	G15063_T 345.00 - WOODRING 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03716	125.8023	GILL ENERGY CENTER WEST - PECK 69KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0433	125.7745	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0433	125.7745	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03483	125.7302	EL PASO - ROSE HILL 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03583	125.7254	RENFROW4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03951	125.721	CRESWELL - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04257	125.6837	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04257	125.6837	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.665	GEN532651 1-JEFFREY ENERGY CENTER UNIT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.662	GEN532652 1-JEFFREY ENERGY CENTER UNIT 2
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.6618	GEN532653 1-JEFFREY ENERGY CENTER UNIT 3
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03583	125.6481	RENFROW4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.6318	GEN542956 2-LACYGNE UNIT #2
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03593	125.6302	MORISNT4 138.00 - SOONER 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.6144	GEN635024 4-WALTER SCOTT UNIT 4
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03951	125.594	P12:069:WERE:BELL-CRSW_69::
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03319	125.57	EL PASO - ROSE HILL 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.5675	GEN542957 1-IATAN UNIT #1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03414	125.5579	RENFROW4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.5576	GEN562902 1-G15052_3 0.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03766	125.5386	CRESWELL - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.498	GEN532651 1-JEFFREY ENERGY CENTER UNIT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.4949	GEN532652 1-JEFFREY ENERGY CENTER UNIT 2
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.4947	GEN532653 1-JEFFREY ENERGY CENTER UNIT 3
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03414	125.4805	RENFROW4 138.00 - WAKITAS4 138.00 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03537	125.47	STILLWATER - UNVRSTY4 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.4649	GEN542956 2-LACYGNE UNIT #2
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03415	125.4545	MORISNT4 138.00 - SOONER 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.4476	GEN635024 4-WALTER SCOTT UNIT 4
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03537	125.4161	MCELROY - UNVRSTY4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03766	125.4117	P12:069:WERE:BELL-CRSW_69::
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03583	125.4091	WAKITA4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.4004	GEN542957 1-IATAN UNIT #1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03583	125.391	P12:138:WFEC:MSL15
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.3906	GEN562902 1-G15052_3 0.6900
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03638	125.36	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03638	125.36	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.2952	GEN640009 1-COOPER NUCLEAR STATION CITY OF WELLINGTON - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03951	125.2949	STILLWATER - UNVRSTY4 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03355	125.2902	STILLWATER - UNVRSTY4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.2864	GEN635023 3-WALTER SCOTT UNIT 3
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03569	125.2483	P12:069:WERE:ARKA-OAK_69::
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03413	125.2417	WAKITA4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03594	125.2413	SOONER - SPRING CREEK 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03355	125.2357	MCELROY - UNVRSTY4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03583	125.2247	SANDY_CN_138138.00 - WAKITA4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03543	125.2237	P12:138:OKGE:3TERM47
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03413	125.2236	P12:138:WFEC:MSL15
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03594	125.223	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03537	125.2203	KINZE - MCELROY 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.2042	GEN532720 1-CANEYWF1 0.6900

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0405	125.1986	RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03473	125.1957	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03473	125.1957	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.1282	GEN640009 1-COOPER NUCLEAR STATION
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.1197	GEN635023 3-WALTER SCOTT UNIT 3
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03766	125.1125	CITY OF WELLINGTON - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03401	125.0814	P12:069:WERE:ARKA-OAK_69::
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03549	125.0706	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03426	125.0674	SOONER - SPRING CREEK 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03413	125.0572	SANDY_CN_138138.00 - WAKITA4 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03426	125.0558	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03362	125.0494	P12:138:OKGE:3TERM47
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03355	125.0385	KINZE - MCELROY 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.0375	GEN532720 1-CANEYWF1 0.6900
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03877	125.0271	RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04379	124.9895	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03373	124.9	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04164	124.7815	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04054	124.6789	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03864	124.4915	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03105	124.3003	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04012	124.2618	RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02989	124.1899	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03557	124.1032	RENFROW4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03838	124.0893	RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04305	124.0038	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03951	123.9871	BELL - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03557	123.9776	RENFROW4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03388	123.9366	RENFROW4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04232	123.9256	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03567	123.8784	MORISNT4 138.00 - SOONER 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03388	123.811	RENFROW4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03766	123.7944	BELL - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03557	123.7186	WAKITA4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03557	123.7012	P12:138:WFEC:MSL15
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0339	123.7	MORISNT4 138.00 - SOONER 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	123.6989	GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03609	123.6439	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03609	123.6439	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03511	123.6143	STILLWATER - UNVRSTY4 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03511	123.564	MCELROY - UNVRSTY4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03388	123.5521	WAKITA4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03388	123.5347	P12:138:WFEC:MSL15
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03557	123.5323	SANDY_CN_138138.00 - WAKITA4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	123.5314	GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03543	123.4958	P12:069:WERE:ARCA-CRSW_69::
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03445	123.4804	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03445	123.4804	DELAWARE - NORTHEAST STATION 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03329	123.4347	STILLWATER - UNVRSTY4 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03543	123.4089	P12:069:WERE:ARKA-OAK_69::
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03329	123.3849	MCELROY - UNVRSTY4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03388	123.3658	SANDY_CN_138138.00 - WAKITA4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03375	123.3298	P12:069:WERE:ARKA-CRSW_69::
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03375	123.2427	P12:069:WERE:ARKA-OAK_69::
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04379	122.5635	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04164	122.3545	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0302	122.1118	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04054	122.1005	ROSE HILL JUNCTION - WEAVER 69KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03864	121.9132	ROSE HILL JUNCTION - WEAVER 69KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03951	121.8182	BELL - PECK 69KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03951	121.6444	P12:069:WERE:BELL-MURR_69::
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03766	121.6356	BELL - PECK 69KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03766	121.4615	P12:069:WERE:BELL-MURR_69::
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03146	121.4019	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03613	121.338	P12:138:OKGE:3TERM2
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03007	121.331	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03019	121.2817	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0364	121.2625	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03608	121.2609	MORISNT4 138.00 - STILLWATER 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03425	121.1539	P12:138:OKGE:3TERM2
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03563	121.1407	DBL-THIS-G15
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0347	121.0959	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0342	121.0772	MORISNT4 138.00 - STILLWATER 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04058	121.0505	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.9929	GEN336821 1-GRAND GULF UNIT
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03396	120.975	DBL-THIS-G15
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.9557	GEN562882 1-G15047_3 0.6900
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.9483	GEN337911 1-ARKANSAS NUCLEAR ONE UNIT #2
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03895	120.8872	OPENSKY7 345.00 - RANCHRD7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04936	120.8772	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04936	120.872	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	120.8269	GEN336821 1-GRAND GULF UNIT
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	120.7891	GEN562882 1-G15047_3 0.6900
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	120.7823	GEN337911 1-ARKANSAS NUCLEAR ONE UNIT #2
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03511	120.7195	BLACKBERRY - NEOSHO 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.7001	GEN562429 1-G13-029 0.6900
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03616	120.5659	MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03722	120.5612	WEAVER (WEAV TX-2) 138/69/13.2KV TRANSFORMER CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03344	120.5539	BLACKBERRY - NEOSHO 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	120.5335	GEN562429 1-G13-029 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04763	120.5317	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.522	GEN514806 1-SOONER UNIT 2
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03553	120.509	BOEING - STEARMAN 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04763	120.4764	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04225	120.4126	CHIKASKIA - KILDARE4 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03584	120.406	DBL-G1524-WI
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.4002	GEN588303 1-ASGI1705-GEN0.6900
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03449	120.3998	MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03547	120.3869	WEAVER (WEAV TX-2) 138/69/13.2KV TRANSFORMER CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	120.3552	GEN514806 1-SOONER UNIT 2

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03385	120.3424	BOEING - STEARMAN 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03722	120.34	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03722	120.34	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04514	120.298	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.2667	GEN301382 1-10SAGEWINDG10.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04514	120.2425	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03417	120.2404	DBL-G1524-WI
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	120.2355	GEN588303 1-ASGI1705-GEN0.6900
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04017	120.2068	CHIKASKIA - KILDARE4 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0356	120.1804	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0356	120.1804	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04763	120.1439	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	120.1016	GEN301382 1-10SAGEWINDG10.6900
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.0492	4REMINGTON 138.00 - ASGI1705 138.00 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03598	120.0449	SUMNER 4 - VIOLA 4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03593	120.0341	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.016	GEN515483 1-BLKWLWD1 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04763	119.9698	DOMES - MOUND ROAD 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04763	119.9663	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04514	119.9086	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	119.8986	4OSAGEWIND 138.00 - 4REMINGTON 138.00 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03429	119.8868	SUMNER 4 - VIOLA 4 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	119.8842	4REMINGTON 138.00 - ASGI1705 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03418	119.8675	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	119.8496	GEN515483 1-BLKWLWD1 0.6900
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0353	119.8137	LACYGNE - STILWELL 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	119.7797	GEN588318 1-ASGI1708-GEN0.6900

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	119.7784	GEN588318 1-ASGI1708-GEN0.6900
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	119.7332	4OSAGEWIND 138.00 - 4REMINGTON 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04514	119.7323	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04514	119.7276	DOMES - MOUND ROAD 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04192	119.6527	OSAGE - SOONER PUMP TAP 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03362	119.6478	LACYGNE - STILWELL 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03528	119.5914	BOEING - CANAL 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04192	119.5817	SOONER - SOONER PUMP TAP 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03529	119.5775	EL PASO - ROSE HILL 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	119.5766	GEN562611 1-G14_064_3 0.6900
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03535	119.5732	DBL-THIS-G15
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03913	119.4895	MILLER - SOONER 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0364	119.447	G15063_T 345.00 - WOODRING 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03971	119.44	OSAGE - SOONER PUMP TAP 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0336	119.4261	BOEING - CANAL 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03365	119.4151	EL PASO - ROSE HILL 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	119.4103	GEN562611 1-G14_064_3 0.6900
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03367	119.4084	DBL-THIS-G15
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	119.3943	ASGI1708MN 138.00 - ASGI1708TP 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	119.3936	ASGI1708MN 138.00 - ASGI1708TP 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03971	119.3688	SOONER - SOONER PUMP TAP 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03951	119.3143	GILL ENERGY CENTER WEST - PECK 69KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0347	119.281	G15063_T 345.00 - WOODRING 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03588	119.2776	MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03492	119.2207	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03766	119.1315	GILL ENERGY CENTER WEST - PECK 69KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03421	119.1124	MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03325	119.0554	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	118.9893	GEN532722 1-EVANS ENERGY CENTER UNIT 2
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03593	118.8893	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04357	118.8822	CHIKASKIA - COYOTE 4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04357	118.8751	COYOTE 4 138.00 - G15-015T 138.00 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03076	118.829	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	118.8228	GEN532722 1-EVANS ENERGY CENTER UNIT 2
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.042	118.7302	CHIKASKIA - KILDARE4 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03418	118.7204	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03528	118.6952	BOEING - STEARMAN 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04142	118.6696	CHIKASKIA - COYOTE 4 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04142	118.6625	COYOTE 4 138.00 - G15-015T 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0336	118.5296	BOEING - STEARMAN 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03992	118.5183	CHIKASKIA - KILDARE4 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03526	118.4682	59TH ST - GILL ENERGY CENTER SOUTH 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	118.4215	GEN532651 1-JEFFREY ENERGY CENTER UNIT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	118.4109	GEN532652 1-JEFFREY ENERGY CENTER UNIT 2
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	118.4105	GEN532653 1-JEFFREY ENERGY CENTER UNIT 3
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03359	118.3031	59TH ST - GILL ENERGY CENTER SOUTH 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03545	118.2645	4OSAGEWIND 138.00 - 4REMINGTON 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	118.2548	GEN532651 1-JEFFREY ENERGY CENTER UNIT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03589	118.2488	P12:069:WERE:ARKA-CRSW_69::
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	118.2442	GEN532652 1-JEFFREY ENERGY CENTER UNIT 2

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	118.2439	GEN532653 1-JEFFREY ENERGY CENTER UNIT 3
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	118.2156	GEN542955 1-LACYGNE UNIT #1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03526	118.1666	59TH ST - EL PASO 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	118.146	GEN542962 2-IATAN UNIT #2
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03526	118.1273	P12:138:WERE:ELPA-MURR_138::
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03377	118.1001	4OSAGEWIND 138.00 - 4REMINGTON 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0342	118.083	P12:069:WERE:ARKA-CRSW_69::
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	118.0489	GEN542955 1-LACYGNE UNIT #1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03359	118.0017	59TH ST - EL PASO 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03603	117.9905	RENFROW4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	117.9794	GEN542962 2-IATAN UNIT #2
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03555	117.9748	BENTON - WICHITA 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03359	117.9617	P12:138:WERE:ELPA-MURR_138::
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03612	117.9264	MORISNT4 138.00 - SOONER 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03603	117.8682	RENFROW4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	117.8349	GEN542956 2-LACYGNE UNIT #2
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03433	117.824	RENFROW4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03387	117.809	BENTON - WICHITA 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03435	117.7522	MORISNT4 138.00 - SOONER 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	117.71	GEN542957 1-IATAN UNIT #1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03433	117.7017	RENFROW4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03687	117.6931	P13:069-138:WERE:WEAV_TX-2::
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0435	117.684	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0435	117.684	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	117.6684	GEN542956 2-LACYGNE UNIT #2
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03589	117.6409	P12:069:WERE:ARKA-OAK_69::
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03659	117.6299	GRDA1 - GREC TAP5 345.00 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	117.6295	GEN562902 1-G15052_3 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03557	117.6272	STILLWATER - UNVRSTY4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03614	117.6096	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03583	117.6076	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03466	117.5963	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04277	117.5959	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04277	117.5959	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03603	117.5811	WAKITA4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03582	117.5761	45TH ST4 138.00 - EVANS ENERGY CENTER SOUTH 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03603	117.5716	P12:138:WFEC:MSL15
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0366	117.5536	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0366	117.5536	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03557	117.5498	MCELROY - UNVRSTY4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	117.5435	GEN542957 1-IATAN UNIT #1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03582	117.5262	45TH ST4 138.00 - COWSKIN 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03512	117.5195	P13:069-138:WERE:WEAV_TX-2::
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03605	117.5163	BUTLER COUNTY NO. 10 BENTON - WEAVER 69KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03582	117.4872	P12:138:WERE:COWS-GECT_138::
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	117.4807	GEN635024 4-WALTER SCOTT UNIT 4
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03605	117.4782	P12:069:WERE:MOBI-WEAV_69::
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0342	117.4747	P12:069:WERE:ARKA-OAK_69::
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03492	117.4638	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	117.4631	GEN562902 1-G15052_3 0.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03375	117.4485	STILLWATER - UNVRSTY4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03446	117.4443	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	117.4423	GEN532663 1-LAWRENCE ENERGY CENTER UNIT 5

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03415	117.4415	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03299	117.432	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03433	117.4146	WAKITA4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03414	117.41	45TH ST4 138.00 - EVANS ENERGY CENTER SOUTH 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03433	117.4052	P12:138:WFEC:MSL15
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03603	117.3958	SANDY_CN_138138.00 - WAKITA4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03496	117.3903	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03496	117.3903	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03375	117.3683	MCELROY - UNVRSTY4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03414	117.3601	45TH ST4 138.00 - COWSKIN 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03436	117.3501	BUTLER COUNTY NO. 10 BENTON - WEAVER 69KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	117.3306	GEN645012 2-NEBRASKA CITY 2
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03605	117.3294	BUTLER COUNTY NO. 10 BENTON - MOBIL 69KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03414	117.3211	P12:138:WERE:COWS-GECT_138:: RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04188	117.3186	GEN635024 4-WALTER SCOTT UNIT 4
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	117.3145	P12:069:WERE:MOBI-WEAV_69::
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03436	117.3117	GEN532720 1-CANEYWF1 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	117.3066	GEN532663 1-LAWRENCE ENERGY CENTER UNIT 5
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	117.2759	SANDY_CN_138138.00 - WAKITA4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	117.1642	GEN645012 2-NEBRASKA CITY 2
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03436	117.1631	BUTLER COUNTY NO. 10 BENTON - MOBIL 69KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	117.1404	GEN532720 1-CANEYWF1 0.6900
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03985	117.1163	RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03032	116.9703	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03063	116.936	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04331	116.6594	CHIKASKIA - COYOTE 4 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04331	116.652	COYOTE 4 138.00 - G15-015T 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.035	116.5939	59TH ST - GILL ENERGY CENTER SOUTH 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04117	116.4386	CHIKASKIA - COYOTE 4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04117	116.4311	COYOTE 4 138.00 - G15-015T 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03333	116.4295	59TH ST - GILL ENERGY CENTER SOUTH 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.035	116.248	59TH ST - EL PASO 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.035	116.2081	P12:138:WERE:ELPA-MURR_138::
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03333	116.0847	59TH ST - EL PASO 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03333	116.0435	P12:138:WERE:ELPA-MURR_138::
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03492	115.9379	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03325	115.7713	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	115.3212	GEN562691 1-G15_015_3 0.6900
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	115.154	GEN562691 1-G15_015_3 0.6900
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	114.9687	GEN514805 1-SOONER UNIT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03661	114.8336	P13:069-138:WERE:WEAV_TX-2::
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	114.8028	GEN514805 1-SOONER UNIT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03486	114.6607	P13:069-138:WERE:WEAV_TX-2::
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03466	114.3704	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03299	114.2025	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03105	114.0125	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02989	113.9032	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03573	113.5858	BOEING - CANAL 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0346	113.5441	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03683	113.4391	WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	113.4257	GEN501801 1-DOLET HILLS UNIT1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03405	113.4205	BOEING - CANAL 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03663	113.4171	DBL-THIS-WWR
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	113.4045	GEN335831 1-RIVERBEND UNIT#1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04175	113.3981	DMNCRKT4 - WHITE EAGLE 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	113.388	GEN587463 1-G16-068-GEN10.6900
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03292	113.3762	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	113.3296	GEN562992 1-G15063_3 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03533	113.2709	BLACKBERRY - NEOSHO 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03533	113.2709	BLACKBERRY - NEOSHO 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03511	113.2697	WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	113.2601	GEN501801 1-DOLET HILLS UNIT1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03496	113.2522	DBL-THIS-WWR
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	113.2392	GEN335831 1-RIVERBEND UNIT#1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	113.222	GEN587463 1-G16-068-GEN10.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	113.2144	GEN337910 1-ARKANSAS NUCLEAR ONE UNIT #1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03957	113.186	DMNCRKT4 - WHITE EAGLE 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	113.1691	GEN336153 1-WATERFORD UNIT#3
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	113.1636	GEN562992 1-G15063_3 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	113.1489	GEN562882 1-G15047_3 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04175	113.1466	DMNCRKT4 - MILLER 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03366	113.1063	BLACKBERRY - NEOSHO 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03366	113.1063	BLACKBERRY - NEOSHO 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03574	113.0564	EL PASO - SIXTY-FOURTH (64TH) 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	113.049	GEN337910 1-ARKANSAS NUCLEAR ONE UNIT #1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04236	113.0192	OSAGE - SOONER PUMP TAP 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	113.0038	GEN336153 1-WATERFORD UNIT#3
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04175	112.9842	MILLER - SOONER 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.983	GEN562882 1-G15047_3 0.6900
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0305	112.9681	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03517	112.9581	SUMNER 4 - VIOLA 4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03957	112.9343	DMNCRKT4 - MILLER 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.9177	GEN562429 1-G13-029 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04236	112.9097	SOONER - SOONER PUMP TAP 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03406	112.8913	EL PASO - SIXTY-FOURTH (64TH) 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.8351	GEN337911 1-ARKANSAS NUCLEAR ONE UNIT #2
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04016	112.8037	OSAGE - SOONER PUMP TAP 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03492	112.7943	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03544	112.7918	59TH ST - GILL ENERGY CENTER SOUTH 138KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03348	112.791	SUMNER 4 - VIOLA 4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.7823	GEN336821 1-GRAND GULF UNIT
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03957	112.7718	MILLER - SOONER 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.7514	GEN562429 1-G13-029 0.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04016	112.6942	SOONER - SOONER PUMP TAP 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.6698	GEN337911 1-ARKANSAS NUCLEAR ONE UNIT #2
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.6586	GEN533561 1-CITY OF WINFIELD
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0346	112.6561	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04246	112.6472	CHIKASKIA - KILDARE4 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03573	112.6399	BOEING - STEARMAN 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03325	112.6303	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03377	112.6275	59TH ST - GILL ENERGY CENTER SOUTH 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.617	GEN336821 1-GRAND GULF UNIT

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.5677	GEN588303 1-ASGI1705-GEN0.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.4931	GEN533561 1-CITY OF WINFIELD
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03292	112.4929	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1 WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03438	112.4779	
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03405	112.4744	BOEING - STEARMAN 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04038	112.4428	CHIKASKIA - KILDARE4 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.4334	GEN301382 1-10SAGEWINDG10.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.4037	GEN588303 1-ASGI1705-GEN0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.3875	GEN514806 1-SOONER UNIT 2
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03271	112.3148	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03544	112.281	59TH ST - EL PASO 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03584	112.2709	DBL-THIS-G15
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.2691	GEN301382 1-10SAGEWINDG10.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.266	4REMNGTON 138.00 - ASGI1705 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03544	112.245	P12:138:WERE:ELPA-MURR_138::
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.2212	GEN514806 1-SOONER UNIT 2
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.1709	GEN515483 1-BLKWLWD1 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.1167	4OSAGEWIND 138.00 - 4REMNGTON 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03377	112.1167	59TH ST - EL PASO 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03417	112.1062	DBL-THIS-G15
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.1019	4REMNGTON 138.00 - ASGI1705 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03377	112.0805	P12:138:WERE:ELPA-MURR_138::
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03514	112.0466	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.0048	GEN515483 1-BLKWLWD1 0.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	111.9522	4OSAGEWIND 138.00 - 4REMNGTON 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	111.9496	GEN588318 1-ASGI1708-GEN0.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	111.9482	GEN588318 1-ASGI1708-GEN0.6900

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03347	111.8823	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0302	111.8163	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	111.7772	GEN562611 1-G14_064_3 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	111.6189	ASGI1708MN 138.00 - ASGI1708TP 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	111.6181	ASGI1708MN 138.00 - ASGI1708TP 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	111.6113	GEN562611 1-G14_064_3 0.6900
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03138	111.4869	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03007	111.41	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02909	111.3822	TIMBER JUNCTION - UDALL 69KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0346	111.3813	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02988	111.3452	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02909	111.2876	P12:069:WERE:TIMJ-WEAV_69::
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03292	111.2136	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03466	111.1866	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02909	111.1507	RICHLAND - UDALL 69KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03299	111.0235	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02909	110.7776	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03138	110.6784	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03527	110.6782	SUMNER 4 - VIOLA 4 138.00 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03358	110.5109	SUMNER 4 - VIOLA 4 138.00 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02988	110.5015	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02909	110.3369	ROSE HILL JUNCTION - WEAVER 69KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03438	110.3322	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03438	110.3262	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03271	110.1686	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03271	110.1626	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03743	109.9924	WEAVER (WEAV TX-2) 138/69/13.2KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03568	109.8188	WEAVER (WEAV TX-2) 138/69/13.2KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04379	109.4352	CHIKASKIA - COYOTE 4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04379	109.4278	COYOTE 4 138.00 - G15-015T 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04164	109.2226	CHIKASKIA - COYOTE 4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04164	109.2152	COYOTE 4 138.00 - G15-015T 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03514	108.8474	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03347	108.6812	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03498	108.6482	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03498	108.6344	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03498	108.4809	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03599	108.4753	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03319	108.475	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03319	108.4612	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03599	108.4507	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03498	108.4431	DOMES - MOUND ROAD 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03498	108.402	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03088	108.3662	G15-015T 138.00 - MDRDTP4 138.00 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03319	108.3099	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03319	108.2714	DOMES - MOUND ROAD 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03319	108.2288	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03477	108.1787	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03309	108.011	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	107.5763	GEN562691 1-G15_015_3 0.6900

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03507	107.4763	SUMNER 4 - VIOLA 4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	107.4093	GEN562691 1-G15_015_3 0.6900
08ALL	0	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03337	107.3067	SUMNER 4 - VIOLA 4 138.00 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03032	107.2082	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0308	107.0295	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03993	106.9496	RANCHR7 345.00 - SOONER 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03829	106.7879	RANCHR7 345.00 - SOONER 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0403	106.7646	RANCHR7 345.00 - SOONER 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03534	106.7316	SOONER (SOONER5) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03866	106.6024	RANCHR7 345.00 - SOONER 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03365	106.5673	SOONER (SOONER5) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03708	106.4855	P13:069-138:WERE:WEAV_TX-2::
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	106.357	GEN514805 1-SOONER UNIT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03533	106.3124	P13:069-138:WERE:WEAV_TX-2::
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03088	106.309	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03181	106.1954	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03181	106.1954	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	106.1913	GEN514805 1-SOONER UNIT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03129	106.1407	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03129	106.1407	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0421	106.1128	RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03477	106.0828	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03477	106.0771	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03309	105.9181	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03309	105.9121	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04007	105.9106	RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03514	105.6683	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03559	105.5131	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03347	105.5085	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03559	105.507	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03463	105.4096	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03463	105.379	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03283	105.2471	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03283	105.2048	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03463	105.1156	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0308	105.0399	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03463	104.9837	DOMES - MOUND ROAD 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03463	104.9751	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03071	104.957	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03283	104.9464	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03283	104.8138	DOMES - MOUND ROAD 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03283	104.8005	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03551	103.8777	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03551	103.872	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03455	103.4778	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03455	103.4406	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03275	103.3068	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03455	103.2873	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03275	103.2707	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03455	103.2224	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03455	103.1756	DOMES - MOUND ROAD 138KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03275	103.1157	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03275	103.0524	P12:138:AEPW:MOUNDRD4:SHIDLER4

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03071	103.044	MDFRDTP4 138.00 - RENFROW4 138KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03275	103.0036	DOMES - MOUND ROAD 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03007	101.5814	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03015	101.5737	RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03138	101.496	CHIKASKIA - COYOTE 4 138.00 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03138	101.4893	COYOTE 4 138.00 - G15-015T 138.00 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03542	101.412	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03542	101.3986	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02988	101.3553	CHIKASKIA - COYOTE 4 138.00 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02988	101.3485	COYOTE 4 138.00 - G15-015T 138.00 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03446	101.1153	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03446	101.0752	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03267	100.9462	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03267	100.9061	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03446	100.7996	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03446	100.6783	DOMES - MOUND ROAD 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03446	100.6435	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	0	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03267	100.6293	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03267	100.5026	DOMES - MOUND ROAD 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03267	100.4742	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03061	99.8	SOONER - SOONER PUMP TAP 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03014	99.8	MILLER - SOONER 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04058	99.7	RANCHR7 345.00 - SOONER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03895	99.5	RANCHR7 345.00 - SOONER 345KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	99.4	DOMES - PAWHUSKA TAP 138KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	99.3	DOMES - MOUND ROAD 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04845	99.3	SOONER (SOONER5) 345/138/13.8KV TRANSFORMER CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	99.3	P12:138:AEPW:MOUNDRD4:SHIDLER4
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03515	99.3	CLEVELAND - TULSA NORTH 345KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03515	99.3	CLEVELAND - TULSA NORTH 345KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	99.2	DOMES - PAWHUSKA TAP 138KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	99.1	DOMES - MOUND ROAD 138KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04609	99.1	SOONER (SOONER5) 345/138/13.8KV TRANSFORMER CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	99.1	P12:138:AEPW:MOUNDRD4:SHIDLER4
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03549	99	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07613	119.4358	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07318	119.3865	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07714	114.4461	SOONER - SPRING CREEK 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07423	114.3964	SOONER - SPRING CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07714	114.3136	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07423	114.2686	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07613	112.2324	SOONER - SPRING CREEK 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07318	112.1841	SOONER - SPRING CREEK 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.08063	110.2189	SOONER - SPRING CREEK 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07772	110.171	SOONER - SPRING CREEK 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.08063	110.0736	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07772	110.0285	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07675	108.8408	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07384	108.8	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.08388	108.5645	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.08104	108.5182	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.08571	106.0409	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.08288	105.9958	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.08056	105.9719	SOONER - SPRING CREEK 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	20L	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07762	105.9319	SOONER - SPRING CREEK 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.08056	105.7463	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07762	105.7057	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07554	104.0602	SOONER - SPRING CREEK 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.0726	104.014	SOONER - SPRING CREEK 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07554	103.9217	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.0726	103.8756	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.05611	102.5693	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.05187	102.501	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.05482	102.4825	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.05056	102.4259	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07675	101.7106	SOONER - SPRING CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07384	101.6638	SOONER - SPRING CREEK 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.05855	100	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.05431	99.9	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07832	106.3624	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07774	106.357	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07279	104.0103	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07218	103.9999	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07472	102.2966	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07415	102.2872	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07832	102.1024	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07774	102.0954	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07023	101.1677	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.06963	101.1576	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07279	99.9	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	16WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07218	99.9	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.0856	99.6	EMPORIA ENERGY CENTER - G14_001T 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07676	99.5	EMPORIA ENERGY CENTER - G14_001T 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07622	99.5	EMPORIA ENERGY CENTER - G14_001T 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.08508	99.5	EMPORIA ENERGY CENTER - G14_001T 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.06553	99	GEN542955 1-LACYGNE UNIT #1
08ALL	0	16WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.06506	99	GEN542955 1-LACYGNE UNIT #1
08ALL	2	20L	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07832	106.362	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07774	106.3566	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07279	104.01	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07218	103.9995	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07472	102.2962	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07415	102.2871	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07832	102.1024	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07774	102.0955	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07023	101.1676	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.06963	101.1575	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07279	99.9	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07218	99.9	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.0856	99.6	EMPORIA ENERGY CENTER - G14_001T 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07676	99.5	EMPORIA ENERGY CENTER - G14_001T 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07622	99.5	EMPORIA ENERGY CENTER - G14_001T 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.08508	99.5	EMPORIA ENERGY CENTER - G14_001T 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.06553	99	GEN542955 1-LACYGNE UNIT #1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	16WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.06506	99	GEN542955 1-LACYGNE UNIT #1
08ALL	2	17SP	ASGI_17_08	TO->FROM	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	1076	1076	0.05463	102.9697	SWISSVALE - WEST GARDNER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	1076	1076	0.05434	102.9619	SWISSVALE - WEST GARDNER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	1076	1076	0.05481	102.4336	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	1076	1076	0.05452	102.4259	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	KINZE - MCELROY 138KV CKT 1	194	222	0.04716	103.1548	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	KINZE - MCELROY 138KV CKT 1	194	222	0.04716	103.1229	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	NORTHWEST - SPRING CREEK 345KV CKT 1	1039	1195	0.07144	102.0656	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	NORTHWEST - SPRING CREEK 345KV CKT 1	1039	1195	0.06961	102.0453	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	SPVALLY4 138.00 - STILLWATER 138KV CKT 1	194	222	0.05167	105.47	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	SPVALLY4 138.00 - STILLWATER 138KV CKT 1	194	222	0.05167	105.47	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	SPVALLY4 138.00 - STILLWATER 138KV CKT 1	194	222	0.04959	105.3281	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	SPVALLY4 138.00 - STILLWATER 138KV CKT 1	194	222	0.04959	105.3281	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05566	134.8433	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05531	134.8305	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05093	131.758	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0506	131.7462	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0543	125.6075	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05393	125.5952	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0543	125.5881	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05393	125.5758	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05725	123.4517	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05691	123.4393	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05019	121.8759	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04985	121.8623	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05222	121.3943	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05189	121.3696	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05512	120.7222	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05475	120.7179	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05512	120.7053	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05475	120.6991	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04905	120.1399	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04905	120.1325	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04868	120.1269	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04868	120.1195	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0543	118.498	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05393	118.4845	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04591	117.402	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04559	117.389	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05815	117.1078	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05781	117.0946	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05172	116.867	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05135	116.8537	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05172	116.7606	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05135	116.7458	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05302	115.7577	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05267	115.7436	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05526	115.6122	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05489	115.6003	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05526	115.5767	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05489	115.5649	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05401	115.4515	G16-012-TAP 345.00 - WAVERLY7 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05365	115.4393	G16-012-TAP 345.00 - WAVERLY7 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05401	115.4338	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05365	115.4219	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05597	113.8469	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05562	113.8321	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05512	113.8221	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05475	113.8162	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04905	112.948	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04868	112.9353	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04848	112.3442	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04816	112.3314	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05104	110.83	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05071	110.8161	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05264	110.7221	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05231	110.7137	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08NR	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05019	109.7843	HOYT - STRANGER CREEK 345KV CKT 1
08NR	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04985	109.7704	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05172	109.4766	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05135	109.4625	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05526	108.6005	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05489	108.5887	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08NR	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05512	108.5455	G16-012-TAP 345.00 - WAVERLY7 345KV CKT 1 345.00
08NR	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05475	108.5361	G16-012-TAP 345.00 - WAVERLY7 345KV CKT 1 345.00
08NR	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05512	108.4958	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08NR	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05475	108.4868	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1 WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05401	108.0866	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05365	108.0741	LACYGNE - WEST GARDNER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04455	107.9922	LACYGNE - WEST GARDNER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04428	107.9822	LACYGNE - WEST GARDNER 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05462	107.7109	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05427	107.6962	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0498	107.312	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04947	107.2974	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08NR	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04905	107.036	G16-012-TAP 345.00 - WAVERLY7 345KV CKT 1 345.00
08NR	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04905	107.0308	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08NR	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04868	107.0238	G16-012-TAP 345.00 - WAVERLY7 345KV CKT 1 345.00
08NR	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04868	107.0185	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08NR	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04591	106.0481	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08NR	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04559	106.0352	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08NR	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05815	104.9045	HOYT - STRANGER CREEK 345KV CKT 1
08NR	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05781	104.8938	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0388	104.7845	GEN542955 1-LACYGNE UNIT #1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03854	104.7779	GEN542955 1-LACYGNE UNIT #1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03536	104.6124	87th STREET - STRANGER CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0351	104.6042	87th STREET - STRANGER CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0388	103.5924	GEN542956 2-LACYGNE UNIT #2

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03854	103.5859	GEN542956 2-LACYGNE UNIT #2
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04157	103.2729	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04126	103.2604	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03485	103.0204	87th STREET - CRAIG 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03459	103.0147	87th STREET - CRAIG 345KV CKT 1
08NR	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05512	102.7925	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08NR	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05475	102.7823	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0421	102.0486	LACYGNE - STILWELL 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04183	102.039	LACYGNE - STILWELL 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03893	101.8362	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03825	101.8182	CLEVELAND - G15066_T 345.00 345KV CKT 1
08NR	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04905	101.4889	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08NR	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04868	101.4765	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0527	100.6715	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05234	100.6592	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0527	100.652	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05234	100.6397	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0388	100.6146	GEN542951 5-HAWTHORN UNIT #5
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03854	100.6081	GEN542951 5-HAWTHORN UNIT #5
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04157	100.4358	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04126	100.4262	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03893	100.171	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03825	100.1522	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04235	100.0854	AXTELL - G16-050-TAP 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04208	100.0758	AXTELL - G16-050-TAP 345.00 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03955	100	LAWRENCE HILL (LAWH TX-3) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03928	100	LAWRENCE HILL (LAWH TX-3) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0388	99.9	GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03854	99.9	GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0388	99.8	GEN300003 1-THOMAS HILL UNIT 3
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03854	99.8	GEN300003 1-THOMAS HILL UNIT 3
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04316	99.5	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04316	99.5	CLEVELAND - TULSA NORTH 345KV CKT 1
08NR	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05264	99.5	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08NR	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05231	99.5	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04235	99.4	G16-050-TAP 345.00 - POST ROCK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0431	99.4	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0431	99.4	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04208	99.3	G16-050-TAP 345.00 - POST ROCK 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04547	99.3	LACYGNE - WEST GARDNER 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0452	99.3	LACYGNE - WEST GARDNER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03976	99.2	SWISSVALE - TECUMSEH HILL 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03976	99.2	TECUMSEH HILL (TECH TX-3) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03949	99.2	TECUMSEH HILL (TECH TX-3) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03949	99.2	SWISSVALE - TECUMSEH HILL 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04002	99.1	IATAN - NASHUA 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03976	99.1	IATAN - NASHUA 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03708	99	HUNTERS7 345.00 - WOODRING 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03736	99	SUMMIT - UNIONRG6 230.00 230KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0367	99	HUNTERS7 345.00 - WOODRING 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0371	99	SUMMIT - UNIONRG6 230.00 230KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	VIOLA 7 345.00 (VIOLA 1X) 345/138/13.8KV TRANSFORMER CKT 1	448	492.8	0.03979	99.6	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	VIOLA 7 345.00 (VIOLA 1X) 345/138/13.8KV TRANSFORMER CKT 1	448	492.8	0.03965	99.6	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0489	126.9538	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03032	126.9102	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03509	126.901	EL PASO - ROSE HILL 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03381	126.8894	P12:138:OKGE:3TERM2
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03677	126.8289	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03677	126.8289	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03376	126.8243	MORISNT4 138.00 - STILLWATER 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04872	126.7888	SOONER (SOONERS) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03344	126.7385	EL PASO - ROSE HILL 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	126.6995	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03515	126.6694	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03515	126.6694	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04054	126.667	RICHLAND - UDALL 69KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	126.6621	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03575	126.5658	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04635	126.5538	SOONER (SOONERS) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03864	126.4796	RICHLAND - UDALL 69KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	126.4664	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0403	126.4317	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	126.4291	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	126.3978	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03399	126.3912	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	126.2933	DOMES - MOUND ROAD 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03866	126.2676	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	126.2575	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03549	126.2384	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03993	126.2007	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	126.1636	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03373	126.0739	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	126.0516	DOMES - MOUND ROAD 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03829	126.0293	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	126.0243	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	126.0086	GEN542955 1-LACYGNE UNIT #1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.039	125.9845	GILL ENERGY CENTER WEST - PECK 69KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03597	125.9773	G15063_T 345.00 - WOODRING 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.9762	GEN542962 2-IATAN UNIT #2
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.8416	GEN542955 1-LACYGNE UNIT #1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.8091	GEN542962 2-IATAN UNIT #2
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03426	125.8089	G15063_T 345.00 - WOODRING 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03716	125.8023	GILL ENERGY CENTER WEST - PECK 69KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0433	125.7745	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0433	125.7745	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03483	125.7302	EL PASO - ROSE HILL 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03583	125.7254	RENFROW4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03951	125.721	CRESWELL - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04257	125.6837	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04257	125.6837	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.665	GEN532651 1-JEFFREY ENERGY CENTER UNIT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.662	GEN532652 1-JEFFREY ENERGY CENTER UNIT 2
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.6618	GEN532653 1-JEFFREY ENERGY CENTER UNIT 3
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03583	125.6481	RENFROW4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.6318	GEN542956 2-LACYGNE UNIT #2
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03593	125.6302	MORISNT4 138.00 - SOONER 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.6144	GEN635024 4-WALTER SCOTT UNIT 4
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03951	125.594	P12:069:WERE:BELL-CRSW_69::
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03319	125.57	EL PASO - ROSE HILL 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.5675	GEN542957 1-IATAN UNIT #1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03414	125.5579	RENFROW4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.5576	GEN562902 1-G15052_3 0.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03766	125.5386	CRESWELL - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.498	GEN532651 1-JEFFREY ENERGY CENTER UNIT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.4949	GEN532652 1-JEFFREY ENERGY CENTER UNIT 2
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.4947	GEN532653 1-JEFFREY ENERGY CENTER UNIT 3
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03414	125.4805	RENFROW4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03537	125.47	STILLWATER - UNVRSTY4 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.4649	GEN542956 2-LACYGNE UNIT #2
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03415	125.4545	MORISNT4 138.00 - SOONER 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.4476	GEN635024 4-WALTER SCOTT UNIT 4
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03537	125.4161	MCLEROY - UNVRSTY4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03766	125.4117	P12:069:WERE:BELL-CRSW_69::
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03583	125.4091	WAKITA4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.4004	GEN542957 1-IATAN UNIT #1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03583	125.391	P12:138:WFEC:MSL15

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.3906	GEN562902 1-G15052_3 0.6900
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03638	125.36	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03638	125.36	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.2952	GEN640009 1-COOPER NUCLEAR STATION CITY OF WELLINGTON - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03951	125.2949	STILLWATER - UNVRSTY4 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03355	125.2902	GEN635023 3-WALTER SCOTT UNIT 3
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.2864	P12:069:WERE:ARKA-OAK_69::
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03569	125.2483	WAKITA4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03413	125.2417	SOONER - SPRING CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03594	125.2413	MCELROY - UNVRSTY4 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03355	125.2357	SANDY_CN_138138.00 - WAKITA4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03583	125.2247	P12:138:OKGE:3TERM47
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03543	125.2237	P12:138:WFEC:MSL15
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03413	125.2236	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03594	125.223	KINZE - MCELROY 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03537	125.2203	GEN532720 1-CANEYWF1 0.6900
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	125.2042	RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0405	125.1986	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03473	125.1957	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03473	125.1957	GEN640009 1-COOPER NUCLEAR STATION
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.1282	GEN635023 3-WALTER SCOTT UNIT 3
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.1197	CITY OF WELLINGTON - SUMNER COUNTY NO. 4 ROME 69KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03766	125.1125	P12:069:WERE:ARKA-OAK_69::
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03401	125.0814	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03549	125.0706	

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03426	125.0674	SOONER - SPRING CREEK 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03413	125.0572	SANDY_CN_138138.00 - WAKITA4 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03426	125.0558	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03362	125.0494	P12:138:OKGE:3TERM47
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03355	125.0385	KINZE - MCELROY 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	125.0375	GEN532720 1-CANEYWF1 0.6900
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03877	125.0271	RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04379	124.9895	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03373	124.9	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04164	124.7815	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04054	124.6789	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03864	124.4915	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03105	124.3003	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04012	124.2618	RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02989	124.1899	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03557	124.1032	RENFROW4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03838	124.0893	RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04305	124.0038	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03951	123.9871	BELL - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03557	123.9776	RENFROW4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03388	123.9366	RENFROW4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04232	123.9256	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03567	123.8784	MORISNT4 138.00 - SOONER 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03388	123.811	RENFROW4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03766	123.7944	BELL - SUMNER COUNTY NO. 3 MILLER 69KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03557	123.7186	WAKITA4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03557	123.7012	P12:138:WFEC:MSL15
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0339	123.7	MORISNT4 138.00 - SOONER 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	123.6989	GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03609	123.6439	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03609	123.6439	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03511	123.6143	STILLWATER - UNVRSTY4 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03511	123.564	MCELROY - UNVRSTY4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03388	123.5521	WAKITA4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03388	123.5347	P12:138:WFEC:MSL15
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03557	123.5323	SANDY_CN_138138.00 - WAKITA4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	123.5314	GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03543	123.4958	P12:069:WERE:ARKA-CRSW_69::
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03445	123.4804	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03445	123.4804	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03329	123.4347	STILLWATER - UNVRSTY4 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03543	123.4089	P12:069:WERE:ARKA-OAK_69::
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03329	123.3849	MCELROY - UNVRSTY4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03388	123.3658	SANDY_CN_138138.00 - WAKITA4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03375	123.3298	P12:069:WERE:ARKA-CRSW_69::
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03375	123.2427	P12:069:WERE:ARKA-OAK_69::
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04379	122.5635	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04164	122.3545	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0302	122.1118	G15052_T 345.00 - ROSE HILL 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04054	122.1005	ROSE HILL JUNCTION - WEAVER 69KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03864	121.9132	ROSE HILL JUNCTION - WEAVER 69KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03951	121.8182	BELL - PECK 69KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03951	121.6444	P12:069:WERE:BELL-MURR_69::
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03766	121.6356	BELL - PECK 69KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03766	121.4615	P12:069:WERE:BELL-MURR_69::
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03146	121.4019	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03613	121.338	P12:138:OKGE:3TERM2
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03007	121.331	G15052_T 345.00 - ROSE HILL 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03019	121.2817	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0364	121.2625	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03608	121.2609	MORISNT4 138.00 - STILLWATER 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03425	121.1539	P12:138:OKGE:3TERM2
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03563	121.1407	DBL-THIS-G15
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0347	121.0959	G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0342	121.0772	MORISNT4 138.00 - STILLWATER 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04058	121.0505	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.9929	GEN336821 1-GRAND GULF UNIT
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03396	120.975	DBL-THIS-G15
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.9557	GEN562882 1-G15047_3 0.6900
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.9483	GEN337911 1-ARKANSAS NUCLEAR ONE UNIT #2
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03895	120.8872	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04936	120.8772	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04936	120.872	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	120.8269	GEN336821 1-GRAND GULF UNIT
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	120.7891	GEN562882 1-G15047_3 0.6900

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	120.7823	GEN337911 1-ARKANSAS NUCLEAR ONE UNIT #2
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03511	120.7195	BLACKBERRY - NEOSHO 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.7001	GEN562429 1-G13-029 0.6900
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03616	120.5659	MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03722	120.5612	WEAVER (WEAV TX-2) 138/69/13.2KV TRANSFORMER CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03344	120.5539	BLACKBERRY - NEOSHO 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	120.5335	GEN562429 1-G13-029 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04763	120.5317	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.522	GEN514806 1-SOONER UNIT 2
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03553	120.509	BOEING - STEARMAN 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04763	120.4764	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04225	120.4126	CHIKASKIA - KILDARE4 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03584	120.406	DBL-G1524-WI
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.4002	GEN588303 1-ASGI1705-GEN0.6900
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03449	120.3998	MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03547	120.3869	WEAVER (WEAV TX-2) 138/69/13.2KV TRANSFORMER CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	120.3552	GEN514806 1-SOONER UNIT 2
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03385	120.3424	BOEING - STEARMAN 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03722	120.34	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03722	120.34	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04514	120.298	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.2667	GEN301382 1-10SAGEWINDG10.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04514	120.2425	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03417	120.2404	DBL-G1524-WI
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	120.2355	GEN588303 1-ASGI1705-GEN0.6900
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04017	120.2068	CHIKASKIA - KILDARE4 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0356	120.1804	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0356	120.1804	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04763	120.1439	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	120.1016	GEN301382 1-10SAGEWINDG10.6900
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.0492	4REMNGTON 138.00 - ASGI1705 138.00 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03598	120.0449	SUMNER 4 - VIOLA 4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03593	120.0341	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	120.016	GEN515483 1-BLKWLWD1 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04763	119.9698	DOMES - MOUND ROAD 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04763	119.9663	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04514	119.9086	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	119.8986	4OSAGEWIND 138.00 - 4REMNGTON 138.00 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03429	119.8868	SUMNER 4 - VIOLA 4 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	119.8842	4REMNGTON 138.00 - ASGI1705 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03418	119.8675	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	119.8496	GEN515483 1-BLKWLWD1 0.6900
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0353	119.8137	LACYGNE - STILWELL 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	119.7797	GEN588318 1-ASGI1708-GEN0.6900
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	119.7784	GEN588318 1-ASGI1708-GEN0.6900
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	119.7332	4OSAGEWIND 138.00 - 4REMNGTON 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04514	119.7323	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04514	119.7276	DOMES - MOUND ROAD 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04192	119.6527	OSAGE - SOONER PUMP TAP 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03362	119.6478	LACYGNE - STILWELL 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03528	119.5914	BOEING - CANAL 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04192	119.5817	SOONER - SOONER PUMP TAP 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03529	119.5775	EL PASO - ROSE HILL 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	119.5766	GEN562611 1-G14_064_3 0.6900
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03535	119.5732	DBL-THIS-G15
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03913	119.4895	MILLER - SOONER 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0364	119.447	G15063_T 345.00 - WOODRING 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03971	119.44	OSAGE - SOONER PUMP TAP 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0336	119.4261	BOEING - CANAL 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03365	119.4151	EL PASO - ROSE HILL 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	119.4103	GEN562611 1-G14_064_3 0.6900
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03367	119.4084	DBL-THIS-G15
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	119.3943	ASGI1708MN 138.00 - ASGI1708TP 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	119.3936	ASGI1708MN 138.00 - ASGI1708TP 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03971	119.3688	SOONER - SOONER PUMP TAP 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03951	119.3143	GILL ENERGY CENTER WEST - PECK 69KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0347	119.281	G15063_T 345.00 - WOODRING 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03588	119.2776	MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03492	119.2207	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03766	119.1315	GILL ENERGY CENTER WEST - PECK 69KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03421	119.1124	MATHWSN7 345.00 - TATONGA7 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03325	119.0554	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	118.9893	GEN532722 1-EVANS ENERGY CENTER UNIT 2
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03593	118.8893	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04357	118.8822	CHIKASKIA - COYOTE 4 138.00 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04357	118.8751	COYOTE 4 138.00 - G15-015T 138.00 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03076	118.829	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	118.8228	GEN532722 1-EVANS ENERGY CENTER UNIT 2

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.042	118.7302	CHIKASKIA - KILDARE4 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03418	118.7204	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03528	118.6952	BOEING - STEARMAN 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04142	118.6696	CHIKASKIA - COYOTE 4 138.00 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04142	118.6625	COYOTE 4 138.00 - G15-015T 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0336	118.5296	BOEING - STEARMAN 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03992	118.5183	CHIKASKIA - KILDARE4 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03526	118.4682	59TH ST - GILL ENERGY CENTER SOUTH 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	118.4215	GEN532651 1-JEFFREY ENERGY CENTER UNIT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	118.4109	GEN532652 1-JEFFREY ENERGY CENTER UNIT 2
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	118.4105	GEN532653 1-JEFFREY ENERGY CENTER UNIT 3
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03359	118.3031	59TH ST - GILL ENERGY CENTER SOUTH 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03545	118.2645	40SAGEWIND 138.00 - 4REMINGTON 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	118.2548	GEN532651 1-JEFFREY ENERGY CENTER UNIT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03589	118.2488	P12:069:WERE:ARKA-CRSW_69::
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	118.2442	GEN532652 1-JEFFREY ENERGY CENTER UNIT 2
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	118.2439	GEN532653 1-JEFFREY ENERGY CENTER UNIT 3
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	118.2156	GEN542955 1-LACYGNE UNIT #1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03526	118.1666	59TH ST - EL PASO 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	118.146	GEN542962 2-IATAN UNIT #2
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03526	118.1273	P12:138:WERE:ELPA-MURR_138::
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03377	118.1001	40SAGEWIND 138.00 - 4REMINGTON 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0342	118.083	P12:069:WERE:ARKA-CRSW_69::
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	118.0489	GEN542955 1-LACYGNE UNIT #1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03359	118.0017	59TH ST - EL PASO 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03603	117.9905	RENFROW4 138.00 - RENFROW4 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	117.9794	GEN542962 2-IATAN UNIT #2
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03555	117.9748	BENTON - WICHITA 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03359	117.9617	P12:138:WERE:ELPA-MURR_138::
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03612	117.9264	MORISNT4 138.00 - SOONER 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03603	117.8682	RENFROW4 138.00 - WAKITAS4 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	117.8349	GEN542956 2-LACYGNE UNIT #2
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03433	117.824	RENFROW4 138.00 - RENFROW4 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03387	117.809	BENTON - WICHITA 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03435	117.7522	MORISNT4 138.00 - SOONER 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	117.71	GEN542957 1-IATAN UNIT #1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03433	117.7017	RENFROW4 138.00 - WAKITAS4 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03687	117.6931	P13:069-138:WERE:WEAV_TX-2::
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0435	117.684	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0435	117.684	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	117.6684	GEN542956 2-LACYGNE UNIT #2
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03589	117.6409	P12:069:WERE:ARKA-OAK_69::
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03659	117.6299	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	117.6295	GEN562902 1-G15052_3 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03557	117.6272	STILLWATER - UNVRSTY4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03614	117.6096	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03583	117.6076	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03466	117.5963	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04277	117.5959	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04277	117.5959	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03603	117.5811	WAKITA4 138.00 - WAKITAS4 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03582	117.5761	45TH ST4 138.00 - EVANS ENERGY CENTER SOUTH 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03603	117.5716	P12:138:WFEC:MSL15
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0366	117.5536	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0366	117.5536	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03557	117.5498	MCELROY - UNVRSTY4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	117.5435	GEN542957 1-IATAN UNIT #1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03582	117.5262	45TH ST4 138.00 - COWSKIN 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03512	117.5195	P13:069-138:WERE:WEAV_TX-2::
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03605	117.5163	BUTLER COUNTY NO. 10 BENTON - WEAVER 69KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03582	117.4872	P12:138:WERE:COWS-GECT_138::
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	117.4807	GEN635024 4-WALTER SCOTT UNIT 4
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03605	117.4782	P12:069:WERE:MOBI-WEAV_69::
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0342	117.4747	P12:069:WERE:ARKA-OAK_69::
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03492	117.4638	GRDA1 - GREC TAP5 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	117.4631	GEN562902 1-G15052_3 0.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03375	117.4485	STILLWATER - UNVRSTY4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03446	117.4443	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	117.4423	GEN532663 1-LAWRENCE ENERGY CENTER UNIT 5
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03415	117.4415	EVANS ENERGY CENTER SOUTH - LAKERIDGE 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03299	117.432	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03433	117.4146	WAKITA4 138.00 - WAKITAS4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03414	117.41	45TH ST4 138.00 - EVANS ENERGY CENTER SOUTH 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03433	117.4052	P12:138:WFEC:MSL15
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03603	117.3958	SANDY_CN_138138.00 - WAKITA4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03496	117.3903	DELAWARE - NORTHEAST STATION 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03496	117.3903	DELAWARE - NORTHEAST STATION 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03375	117.3683	MCELROY - UNVRSTY4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03414	117.3601	45TH ST4 138.00 - COWSKIN 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03436	117.3501	BUTLER COUNTY NO. 10 BENTON - WEAVER 69KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	117.3306	GEN645012 2-NEBRASKA CITY 2
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03605	117.3294	BUTLER COUNTY NO. 10 BENTON - MOBIL 69KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03414	117.3211	P12:138:WERE:COWS-GECT_138::
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04188	117.3186	RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	117.3145	GEN635024 4-WALTER SCOTT UNIT 4
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03436	117.3117	P12:069:WERE:MOBI-WEAV_69::
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	117.3066	GEN532720 1-CANEYWF1 0.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	117.2759	GEN532663 1-LAWRENCE ENERGY CENTER UNIT 5
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03433	117.2293	SANDY_CN_138138.00 - WAKITA4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	117.1642	GEN645012 2-NEBRASKA CITY 2
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03436	117.1631	BUTLER COUNTY NO. 10 BENTON - MOBIL 69KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	117.1404	GEN532720 1-CANEYWF1 0.6900
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03985	117.1163	RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03032	116.9703	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03063	116.936	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04331	116.6594	CHIKASKIA - COYOTE 4 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04331	116.652	COYOTE 4 138.00 - G15-015T 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.035	116.5939	59TH ST - GILL ENERGY CENTER SOUTH 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04117	116.4386	CHIKASKIA - COYOTE 4 138.00 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04117	116.4311	COYOTE 4 138.00 - G15-015T 138.00 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03333	116.4295	59TH ST - GILL ENERGY CENTER SOUTH 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.035	116.248	59TH ST - EL PASO 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.035	116.2081	P12:138:WERE:ELPA-MURR_138::
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03333	116.0847	59TH ST - EL PASO 138KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03333	116.0435	P12:138:WERE:ELPA-MURR_138::
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03492	115.9379	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03325	115.7713	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	115.3212	GEN562691 1-G15_015_3 0.6900
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	115.154	GEN562691 1-G15_015_3 0.6900
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03571	114.9687	GEN514805 1-SOONER UNIT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03661	114.8336	P13:069-138:WERE:WEAV_TX-2::
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03403	114.8028	GEN514805 1-SOONER UNIT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03486	114.6607	P13:069-138:WERE:WEAV_TX-2::
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03466	114.3704	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03299	114.2025	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03105	114.0125	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02989	113.9032	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03573	113.5858	BOEING - CANAL 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0346	113.5441	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03683	113.4391	WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	113.4257	GEN501801 1-DOLET HILLS UNIT1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03405	113.4205	BOEING - CANAL 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03663	113.4171	DBL-THIS-WWR
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	113.4045	GEN335831 1-RIVERBEND UNIT#1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04175	113.3981	DMNCRKT4 - WHITE EAGLE 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	113.388	GEN587463 1-G16-068-GEN10.6900

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03292	113.3762	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	113.3296	GEN562992 1-G15063_3 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03533	113.2709	BLACKBERRY - NEOSHO 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03533	113.2709	BLACKBERRY - NEOSHO 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03511	113.2697	WOODRING (WOODRNG2) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	113.2601	GEN501801 1-DOLET HILLS UNIT1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03496	113.2522	DBL-THIS-WWR
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	113.2392	GEN335831 1-RIVERBEND UNIT#1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	113.222	GEN587463 1-G16-068-GEN10.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	113.2144	GEN337910 1-ARKANSAS NUCLEAR ONE UNIT #1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03957	113.186	DMNCRKT4 - WHITE EAGLE 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	113.1691	GEN336153 1-WATERFORD UNIT#3
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	113.1636	GEN562992 1-G15063_3 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	113.1489	GEN562882 1-G15047_3 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04175	113.1466	DMNCRKT4 - MILLER 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03366	113.1063	BLACKBERRY - NEOSHO 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03366	113.1063	BLACKBERRY - NEOSHO 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03574	113.0564	EL PASO - SIXTY-FOURTH (64TH) 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	113.049	GEN337910 1-ARKANSAS NUCLEAR ONE UNIT #1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04236	113.0192	OSAGE - SOONER PUMP TAP 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	113.0038	GEN336153 1-WATERFORD UNIT#3
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04175	112.9842	MILLER - SOONER 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.983	GEN562882 1-G15047_3 0.6900
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0305	112.9681	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03517	112.9581	SUMNER 4 - VIOLA 4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03957	112.9343	DMNCRKT4 - MILLER 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.9177	GEN562429 1-G13-029 0.6900

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04236	112.9097	SOONER - SOONER PUMP TAP 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03406	112.8913	EL PASO - SIXTY-FOURTH (64TH) 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.8351	GEN337911 1-ARKANSAS NUCLEAR ONE UNIT #2
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04016	112.8037	OSAGE - SOONER PUMP TAP 138KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03492	112.7943	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03544	112.7918	59TH ST - GILL ENERGY CENTER SOUTH 138KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03348	112.791	SUMNER 4 - VIOLA 4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.7823	GEN336821 1-GRAND GULF UNIT
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03957	112.7718	MILLER - SOONER 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.7514	GEN562429 1-G13-029 0.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04016	112.6942	SOONER - SOONER PUMP TAP 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.6698	GEN337911 1-ARKANSAS NUCLEAR ONE UNIT #2
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.6586	GEN533561 1-CITY OF WINFIELD
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0346	112.6561	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04246	112.6472	CHIKASKIA - KILDARE4 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03573	112.6399	BOEING - STEARMAN 138KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03325	112.6303	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03377	112.6275	59TH ST - GILL ENERGY CENTER SOUTH 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.617	GEN336821 1-GRAND GULF UNIT
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.5677	GEN588303 1-ASGI1705-GEN0.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.4931	GEN533561 1-CITY OF WINFIELD
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03292	112.4929	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03438	112.4779	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03405	112.4744	BOEING - STEARMAN 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04038	112.4428	CHIKASKIA - KILDARE4 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.4334	GEN301382 1-1OSAGEWINDG10.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.4037	GEN588303 1-ASGI1705-GEN0.6900

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.3875	GEN514806 1-SOONER UNIT 2
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03271	112.3148	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03544	112.281	59TH ST - EL PASO 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03584	112.2709	DBL-THIS-G15
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.2691	GEN301382 1-10SAGEWINDG10.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.266	4REMINGTON 138.00 - ASGI1705 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03544	112.245	P12:138:WERE:ELPA-MURR_138::
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.2212	GEN514806 1-SOONER UNIT 2
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.1709	GEN515483 1-BLKWLWD1 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	112.1167	4OSAGEWIND 138.00 - 4REMINGTON 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03377	112.1167	59TH ST - EL PASO 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03417	112.1062	DBL-THIS-G15
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.1019	4REMINGTON 138.00 - ASGI1705 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03377	112.0805	P12:138:WERE:ELPA-MURR_138::
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03514	112.0466	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	112.0048	GEN515483 1-BLKWLWD1 0.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	111.9522	4OSAGEWIND 138.00 - 4REMINGTON 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	111.9496	GEN588318 1-ASGI1708-GEN0.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	111.9482	GEN588318 1-ASGI1708-GEN0.6900
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03347	111.8823	LATHAMS7 345.00 - ROSE HILL 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0302	111.8163	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	111.7772	GEN562611 1-G14_064_3 0.6900
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	111.6189	ASGI1708MN 138.00 - ASGI1708TP 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	111.6181	ASGI1708MN 138.00 - ASGI1708TP 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	111.6113	GEN562611 1-G14_064_3 0.6900
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03138	111.4869	G15-015T 138.00 - MDRDTP4 138.00 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03007	111.41	G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02909	111.3822	TIMBER JUNCTION - UDALL 69KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0346	111.3813	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02988	111.3452	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02909	111.2876	P12:069:WERE:TIMJ-WEAV_69::
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03292	111.2136	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03466	111.1866	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02909	111.1507	RICHLAND - UDALL 69KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03299	111.0235	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02909	110.7776	RICHLAND - ROSE HILL JUNCTION 69KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03138	110.6784	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03527	110.6782	SUMNER 4 - VIOLA 4 138.00 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03358	110.5109	SUMNER 4 - VIOLA 4 138.00 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02988	110.5015	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02909	110.3369	ROSE HILL JUNCTION - WEAVER 69KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03438	110.3322	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03438	110.3262	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03271	110.1686	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03271	110.1626	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03743	109.9924	WEAVER (WEAV TX-2) 138/69/13.2KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03568	109.8188	WEAVER (WEAV TX-2) 138/69/13.2KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04379	109.4352	CHIKASKIA - COYOTE 4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04379	109.4278	COYOTE 4 138.00 - G15-015T 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04164	109.2226	CHIKASKIA - COYOTE 4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04164	109.2152	COYOTE 4 138.00 - G15-015T 138.00 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03514	108.8474	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03347	108.6812	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03498	108.6482	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03498	108.6344	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03498	108.4809	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03599	108.4753	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03319	108.475	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03319	108.4612	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03599	108.4507	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03498	108.4431	DOMES - MOUND ROAD 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03498	108.402	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03088	108.3662	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03319	108.3099	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03319	108.2714	DOMES - MOUND ROAD 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03319	108.2288	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03477	108.1787	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03309	108.011	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	107.5763	GEN562691 1-G15_015_3 0.6900
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03507	107.4763	SUMNER 4 - VIOLA 4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	107.4093	GEN562691 1-G15_015_3 0.6900
08ALL	0	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03337	107.3067	SUMNER 4 - VIOLA 4 138.00 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03032	107.2082	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0308	107.0295	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03993	106.9496	RANCHR7 345.00 - SOONER 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03829	106.7879	RANCHR7 345.00 - SOONER 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0403	106.7646	RANCHR7 345.00 - SOONER 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03534	106.7316	SOONER (SOONER5) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03866	106.6024	RANCHRD7 345.00 - SOONER 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03365	106.5673	SOONER (SOONER5) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03708	106.4855	P13:069-138:WERE:WEAV_TX-2::
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03591	106.357	GEN514805 1-SOONER UNIT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03533	106.3124	P13:069-138:WERE:WEAV_TX-2::
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03088	106.309	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03181	106.1954	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03181	106.1954	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03423	106.1913	GEN514805 1-SOONER UNIT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03129	106.1407	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03129	106.1407	FAIRFAX - PAWNSW4 138.00 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0421	106.1128	RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03477	106.0828	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03477	106.0771	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03309	105.9181	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03309	105.9121	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04007	105.9106	RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03514	105.6683	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03559	105.5131	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03347	105.5085	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03559	105.507	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03463	105.4096	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03463	105.379	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03283	105.2471	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03283	105.2048	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03463	105.1156	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.0308	105.0399	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03463	104.9837	DOMES - MOUND ROAD 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03463	104.9751	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03071	104.957	G15-015T 138.00 - MDFRDTP4 138.00 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03283	104.9464	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03283	104.8138	DOMES - MOUND ROAD 138KV CKT 1
08ALL	0	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03283	104.8005	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03551	103.8777	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03551	103.872	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03455	103.4778	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03455	103.4406	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03275	103.3068	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03455	103.2873	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03275	103.2707	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03455	103.2224	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03455	103.1756	DOMES - MOUND ROAD 138KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03275	103.1157	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03275	103.0524	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03071	103.044	MDFRDTP4 138.00 - RENFROW4 138.00 138KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03275	103.0036	DOMES - MOUND ROAD 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03007	101.5814	OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03015	101.5737	RENFROW7 345.00 (BANK 1) 345/138/13.8KV TRANSFORMER CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03138	101.496	CHIKASKIA - COYOTE 4 138.00 138KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03138	101.4893	COYOTE 4 138.00 - G15-015T 138.00 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03542	101.412	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03542	101.3986	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02988	101.3553	CHIKASKIA - COYOTE 4 138.00 138KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.02988	101.3485	COYOTE 4 138.00 - G15-015T 138.00 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03446	101.1153	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03446	101.0752	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03267	100.9462	SHIDLER - WEST PAWHUSKA 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03267	100.9061	PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03446	100.7996	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03446	100.6783	DOMES - MOUND ROAD 138KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03446	100.6435	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	0	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03267	100.6293	DOMES - PAWHUSKA TAP 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03267	100.5026	DOMES - MOUND ROAD 138KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03267	100.4742	P12:138:AEPW:MOUNDRD4:SHIDLER4
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03061	99.8	SOONER - SOONER PUMP TAP 138KV CKT 1
08ALL	2	20SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03014	99.8	MILLER - SOONER 138KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04058	99.7	RANCHRD7 345.00 - SOONER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03895	99.5	RANCHRD7 345.00 - SOONER 345KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	99.4	DOMES - PAWHUSKA TAP 138KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	99.3	DOMES - MOUND ROAD 138KV CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04845	99.3	SOONER (SOONER5) 345/138/13.8KV TRANSFORMER CKT 1
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04717	99.3	P12:138:AEPW:MOUNDRD4:SHIDLER4
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03515	99.3	CLEVELAND - TULSA NORTH 345KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03515	99.3	CLEVELAND - TULSA NORTH 345KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	99.2	DOMES - PAWHUSKA TAP 138KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	99.1	DOMES - MOUND ROAD 138KV CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04609	99.1	SOONER (SOONER5) 345/138/13.8KV TRANSFORMER CKT 1
08NR	0	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.04468	99.1	P12:138:AEPW:MOUNDRD4:SHIDLER4

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08NR	2	17G	ASGI_17_08	TO->FROM	FARBER - SUMNER COUNTY NO. 10 BELLE PLAIN 138KV CKT 1	160	160	0.03549	99	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07613	119.4358	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07318	119.3865	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07714	114.4461	SOONER - SPRING CREEK 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07423	114.3964	SOONER - SPRING CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07714	114.3136	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07423	114.2686	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07613	112.2324	SOONER - SPRING CREEK 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07318	112.1841	SOONER - SPRING CREEK 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.08063	110.2189	SOONER - SPRING CREEK 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07772	110.171	SOONER - SPRING CREEK 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.08063	110.0736	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07772	110.0285	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07675	108.8408	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07384	108.8	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.08388	108.5645	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.08104	108.5182	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.08571	106.0409	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.08288	105.9958	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.08056	105.9719	SOONER - SPRING CREEK 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07762	105.9319	SOONER - SPRING CREEK 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.08056	105.7463	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07762	105.7057	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07554	104.0602	SOONER - SPRING CREEK 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.0726	104.014	SOONER - SPRING CREEK 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07554	103.9217	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.0726	103.8756	NORTHWEST - SPRING CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.05611	102.5693	CLEVELAND - G15066_T 345.00 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	16WP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.05187	102.501	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.05482	102.4825	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.05056	102.4259	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07675	101.7106	SOONER - SPRING CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.07384	101.6638	SOONER - SPRING CREEK 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.05855	100	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	G15063_T 345.00 - WOODRING 345KV CKT 1	956	956	0.05431	99.9	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07832	106.3624	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07774	106.357	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07279	104.0103	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07218	103.9999	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07472	102.2966	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07415	102.2872	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07832	102.1024	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07774	102.0954	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07023	101.1677	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.06963	101.1576	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07279	99.9	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07218	99.9	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.0856	99.6	EMPORIA ENERGY CENTER - G14_001T 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07676	99.5	EMPORIA ENERGY CENTER - G14_001T 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.07622	99.5	EMPORIA ENERGY CENTER - G14_001T 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.08508	99.5	EMPORIA ENERGY CENTER - G14_001T 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.06553	99	GEN542955 1-LACYGNE UNIT #1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	16WP	ASGI_17_08	FROM->TO	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1	1141	1195	0.06506	99	GEN542955 1-LACYGNE UNIT #1
08ALL	2	20L	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07832	106.362	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07774	106.3566	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07279	104.01	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07218	103.9995	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07472	102.2962	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07415	102.2871	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07832	102.1024	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07774	102.0955	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	17G	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07023	101.1676	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	17G	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.06963	101.1575	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07279	99.9	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07218	99.9	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.0856	99.6	EMPORIA ENERGY CENTER - G14_001T 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07676	99.5	EMPORIA ENERGY CENTER - G14_001T 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.07622	99.5	EMPORIA ENERGY CENTER - G14_001T 345.00 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.08508	99.5	EMPORIA ENERGY CENTER - G14_001T 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.06553	99	GEN542955 1-LACYGNE UNIT #1
08ALL	0	16WP	ASGI_17_08	TO->FROM	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1	1141	1195	0.06506	99	GEN542955 1-LACYGNE UNIT #1
08ALL	2	17SP	ASGI_17_08	TO->FROM	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	1076	1076	0.05463	102.9697	SWISSVALE - WEST GARDNER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	1076	1076	0.05434	102.9619	SWISSVALE - WEST GARDNER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	1076	1076	0.05481	102.4336	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1	1076	1076	0.05452	102.4259	EMPORIA ENERGY CENTER - SWISSVALE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	TO->FROM	KINZE - MCELROY 138KV CKT 1	194	222	0.04716	103.1548	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1
08ALL	0	17SP	ASGI_17_08	TO->FROM	KINZE - MCELROY 138KV CKT 1	194	222	0.04716	103.1229	4REMINGTON 138.00 - FAIRFAX 138KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	25SP	ASGI_17_08	TO->FROM	NORTHWEST - SPRING CREEK 345KV CKT 1	1039	1195	0.07144	102.0656	G15063_T 345.00 - MATHWSN7 345KV CKT 1 345.00
08ALL	0	25SP	ASGI_17_08	TO->FROM	NORTHWEST - SPRING CREEK 345KV CKT 1	1039	1195	0.06961	102.0453	G15063_T 345.00 - MATHWSN7 345KV CKT 1 345.00
08ALL	0	20L	ASGI_17_08	TO->FROM	SPVALLY4 138.00 - STILLWATER 138KV CKT 1	194	222	0.05167	105.47	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	20L	ASGI_17_08	TO->FROM	SPVALLY4 138.00 - STILLWATER 138KV CKT 1	194	222	0.05167	105.47	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	SPVALLY4 138.00 - STILLWATER 138KV CKT 1	194	222	0.04959	105.3281	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	20L	ASGI_17_08	TO->FROM	SPVALLY4 138.00 - STILLWATER 138KV CKT 1	194	222	0.04959	105.3281	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05566	134.8433	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05531	134.8305	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05093	131.758	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0506	131.7462	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0543	125.6075	G16-012-TAP 345.00 - WAVERLY7 345KV CKT 1 345.00
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05393	125.5952	G16-012-TAP 345.00 - WAVERLY7 345KV CKT 1 345.00
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0543	125.5881	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05393	125.5758	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05725	123.4517	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05691	123.4393	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05019	121.8759	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04985	121.8623	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05222	121.3943	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05189	121.3696	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05512	120.7222	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05475	120.7179	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05512	120.7053	G16-012-TAP 345.00 - WAVERLY7 345KV CKT 1 345.00
08ALL	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05475	120.6991	G16-012-TAP 345.00 - WAVERLY7 345KV CKT 1 345.00
08ALL	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04905	120.1399	G16-012-TAP 345.00 - WAVERLY7 345KV CKT 1 345.00

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04905	120.1325	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04868	120.1269	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04868	120.1195	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0543	118.498	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05393	118.4845	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04591	117.402	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04559	117.389	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05815	117.1078	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05781	117.0946	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05172	116.867	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05135	116.8537	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05172	116.7606	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05135	116.7458	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05302	115.7577	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05267	115.7436	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05526	115.6122	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05489	115.6003	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05526	115.5767	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05489	115.5649	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05401	115.4515	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05365	115.4393	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05401	115.4338	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05365	115.4219	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05597	113.8469	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05562	113.8321	HOYT - STRANGER CREEK 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05512	113.8221	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05475	113.8162	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04905	112.948	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04868	112.9353	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04848	112.3442	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04816	112.3314	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05104	110.83	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05071	110.8161	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05264	110.7221	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05231	110.7137	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08NR	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05019	109.7843	HOYT - STRANGER CREEK 345KV CKT 1
08NR	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04985	109.7704	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05172	109.4766	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	16WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05135	109.4625	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05526	108.6005	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05489	108.5887	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08NR	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05512	108.5455	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08NR	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05475	108.5361	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08NR	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05512	108.4958	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08NR	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05475	108.4868	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05401	108.0866	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	0	20WP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05365	108.0741	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04455	107.9922	LACYGNE - WEST GARDNER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04428	107.9822	LACYGNE - WEST GARDNER 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05462	107.7109	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05427	107.6962	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0498	107.312	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04947	107.2974	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08NR	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04905	107.036	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08NR	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04905	107.0308	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08NR	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04868	107.0238	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08NR	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04868	107.0185	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08NR	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04591	106.0481	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08NR	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04559	106.0352	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08NR	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05815	104.9045	HOYT - STRANGER CREEK 345KV CKT 1
08NR	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05781	104.8938	HOYT - STRANGER CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0388	104.7845	GEN542955 1-LACYGNE UNIT #1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03854	104.7779	GEN542955 1-LACYGNE UNIT #1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03536	104.6124	87th STREET - STRANGER CREEK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0351	104.6042	87th STREET - STRANGER CREEK 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0388	103.5924	GEN542956 2-LACYGNE UNIT #2
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03854	103.5859	GEN542956 2-LACYGNE UNIT #2
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04157	103.2729	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04126	103.2604	CANEYRV7 345.00 - NEOSHO 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03485	103.0204	87th STREET - CRAIG 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03459	103.0147	87th STREET - CRAIG 345KV CKT 1
08NR	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05512	102.7925	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08NR	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05475	102.7823	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0421	102.0486	LACYGNE - STILWELL 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04183	102.039	LACYGNE - STILWELL 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03893	101.8362	CLEVELAND - G15066_T 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03825	101.8182	CLEVELAND - G15066_T 345.00 345KV CKT 1
08NR	2	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04905	101.4889	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08NR	0	17G	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04868	101.4765	WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0527	100.6715	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05234	100.6592	G16-012-TAP 345.00 - WAVERLY7 345.00 345KV CKT 1
08ALL	2	25SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0527	100.652	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	0	25SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05234	100.6397	G16-012-TAP 345.00 - LACYGNE 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0388	100.6146	GEN542951 5-HAWTHORN UNIT #5
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03854	100.6081	GEN542951 5-HAWTHORN UNIT #5
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04157	100.4358	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04126	100.4262	CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03893	100.171	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03825	100.1522	G15066_T 345.00 - SOONER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04235	100.0854	AXTELL - G16-050-TAP 345.00 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04208	100.0758	AXTELL - G16-050-TAP 345.00 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03955	100	LAWRENCE HILL (LAWH TX-3) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03928	100	LAWRENCE HILL (LAWH TX-3) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0388	99.9	GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03854	99.9	GEN532751 1-WOLF CREEK GENERATING STATION UNIT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0388	99.8	GEN300003 1-THOMAS HILL UNIT 3
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03854	99.8	GEN300003 1-THOMAS HILL UNIT 3
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04316	99.5	CLEVELAND - TULSA NORTH 345KV CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04316	99.5	CLEVELAND - TULSA NORTH 345KV CKT 1
08NR	2	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05264	99.5	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08NR	0	20L	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.05231	99.5	HOYT - JEFFREY ENERGY CENTER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04235	99.4	G16-050-TAP 345.00 - POST ROCK 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0431	99.4	CLEVELAND - TULSA NORTH 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04208	99.3	G16-050-TAP 345.00 - POST ROCK 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04547	99.3	LACYGNE - WEST GARDNER 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0452	99.3	LACYGNE - WEST GARDNER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03976	99.2	SWISSVALE - TECUMSEH HILL 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03976	99.2	TECUMSEH HILL (TECH TX-3) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03949	99.2	TECUMSEH HILL (TECH TX-3) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03949	99.2	SWISSVALE - TECUMSEH HILL 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04002	99.1	IATAN - NASHUA 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03976	99.1	IATAN - NASHUA 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03708	99	HUNTERS7 345.00 - WOODRING 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03736	99	SUMMIT - UNIONRG6 230.00 230KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0367	99	HUNTERS7 345.00 - WOODRING 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0371	99	SUMMIT - UNIONRG6 230.00 230KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	VIOLA 7 345.00 (VIOLA 1X) 345/138/13.8KV TRANSFORMER CKT 1	448	492.8	0.03979	99.6	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	VIOLA 7 345.00 (VIOLA 1X) 345/138/13.8KV TRANSFORMER CKT 1	448	492.8	0.03965	99.6	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04208	99.3	G16-050-TAP 345.00 - POST ROCK 345KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04547	99.3	LACYGNE - WEST GARDNER 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0452	99.3	LACYGNE - WEST GARDNER 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03976	99.2	SWISSVALE - TECUMSEH HILL 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03976	99.2	TECUMSEH HILL (TECH TX-3) 230/115/13.8KV TRANSFORMER CKT 1

Table 8: Thermal Constraints Not Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03949	99.2	TECUMSEH HILL (TECH TX-3) 230/115/13.8KV TRANSFORMER CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03949	99.2	SWISSVALE - TECUMSEH HILL 230KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.04002	99.1	IATAN - NASHUA 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03976	99.1	IATAN - NASHUA 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03708	99	HUNTERS7 345.00 - WOODRING 345KV CKT 1
08ALL	2	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.03736	99	SUMMIT - UNIONRG6 230.00 230KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0367	99	HUNTERS7 345.00 - WOODRING 345KV CKT 1
08ALL	0	17SP	ASGI_17_08	FROM->TO	SWISSVALE - WEST GARDNER 345KV CKT 1	717	717	0.0371	99	SUMMIT - UNIONRG6 230.00 230KV CKT 1
08ALL	2	20SP	ASGI_17_08	FROM->TO	VIOLA 7 345.00 (VIOLA 1X) 345/138/13.8KV TRANSFORMER CKT 1	448	492.8	0.03979	99.6	VIOLA 7 345.00 - WICHITA 345KV CKT 1
08ALL	0	20SP	ASGI_17_08	FROM->TO	VIOLA 7 345.00 (VIOLA 1X) 345/138/13.8KV TRANSFORMER CKT 1	448	492.8	0.03965	99.6	VIOLA 7 345.00 - WICHITA 345KV CKT 1

