



GENERATOR INTERCONNECTION AFFECTED SYSTEM IMPACT STUDY REPORT

ASGI-2017-008 Re-study

Published August 2018

By SPP Generator Interconnections Dept.

REVISION HISTORY

DATE OR VERSION NUMBER	AUTHOR	CHANGE DESCRIPTION	COMMENTS
3/1/2018	SPP	ASIS for ASGI-2017-008 Report Rev. 0 Posted	
8/28/2018	SPP	ASIS for ASGI-2017-008 Re-study Report Rev. 0 Posted	Re-study of ASGI-2017-008

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1 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 generator to the AECI transmission system for the system topology and requests included in SPP DISIS-2016-001 or latest iteration. 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 line tap of Remington 138 kV to Shidler 138 kV substations 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 was not conducted for this re-study. The report from the original study of ASGI-2017-008 includes the results of the stability analysis, and that report may be reviewed if needed.

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).

2 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 re-study is to evaluate the impacts of interconnecting the AECI GI-059/SIS-30 request assigned the SPP queue identifier ASGI-2017-008 with the consideration of AECI request GI-052/SIS-23 withdrawing its request for interconnection. 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	Commercial Operation
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 Schedule
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
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 Executed/On Schedule
GEN-2015-062	4.5	Wind	Tap and Tie South 4th - Bunch Creek & Enid Tap - Fairmont (GEN-2012-033T) 138kV	IA Pending
GEN-2015-063	300	Wind	Tap Woodring - Mathewson 345kV	Commercial Operation
GEN-2015-066	248.4	Wind	Tap Cleveland - Sooner 345kV	IA Executed/On Schedule
GEN-2015-069	300	Wind	Union Ridge 230kV	IA Executed/On schedule
GEN-2015-073	200.1	Wind	Emporia Energy Center 345kV	IA Executed/On schedule

Table 1: Generation Requests Included within ASIS

Project	MW	Fuel Source	POI	Status
GEN-2015-083	125	Wind	Belle Plain 138kV	Facility Study Stage
GEN-2015-090	220	Wind	Tap Thistle - Wichita 345kV Dbl CKT	IA Pending
GEN-2016-009	29	Thermal	Osage 69kV (514742)	IA Executed/On schedule
GEN-2016-022	151.8	Wind	Ranch Road 345kV (515576)	Facility Study Stage
GEN-2016-031	1.5MW uprate of GEN-2015- 001 (total = 201.3MW)	Wind	Ranch Road 345kV (515576)	IA Executed/Commercial Operation
GEN-2016-032	200	Wind	Tap Marshall (514733)- Cottonwood Creek (514827) 138kV, (G16-032-TAP, 560077)	IA Pending
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
GEN-2016-073	220	Wind	Buffalo Flats 345kV Sub	Facility Study Stage
ASGI-2017-008	158.6	Wind	Remington - Shilder 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. The re-study of this ASIS is required due to AECl interconnection request GI-052/SIS-23 withdrawing from its interconnection request.

Table 2: Upgrade Projects Required for Interconnection Service

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

DISIS-2016-001-2 Group 08 Impact Study was posted July 29, 2018.

DISIS-2016-001-2 reports can be located at the following Generation Interconnection Study URL:
[http://sppoasis.spp.org/documents/swpp/transmission/studies/files/2016 Generation Studies/DISIS %202016-001-2%20FINAL.pdf](http://sppoasis.spp.org/documents/swpp/transmission/studies/files/2016%20Generation%20Studies/DISIS%202016-001-2%20FINAL.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 (Included in Scenario 0)	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 (Included in Scenario 0)	Rebuild	Rebuild approximately 10 miles of 138kV from Farber – Belle Plains	Facility Study	DISIS-2016-001-2 (ERIS)
Middleton Tap – Chilocco 138kV CKT 1 (Included in Scenario 0)	Rebuild	Rebuild approximately 5.7 miles of 138kV from Middleton Tap – Chilocco	Assigned to SPP Higher Queued Impact Study	DISIS-2016-001-2 (ERIS)
GEN-2015-063 Tap – Woodring 345 kV CKT 1 (Included in Scenario 0)	Rerate	Rerate of GEN-2015-063 Tap – Woodring 345 kV	Assigned to SPP Higher Queued Impact Study	DISIS-2016-001-2 (ERIS)
LaCygne - Waverly 345 kV CKT 1 (Included in Scenario 0)	Assigned to SPP Higher Queued Impact Study	Upgrade the terminal equipment on the LaCygne– Waverly 345 kV	Assigned to SPP Higher Queued Impact Study	DISIS-2016-001-2 (ERIS)
Ranch Road – Sooner 345 kV CKT 1 (Included in Scenario 0)	Upgrade Terminal Equipment	Upgrade the terminal equipment on the Ranch Road – Sooner 345 kV	Assigned to SPP Higher Queued Impact Study	DISIS-2016-001-2 (ERIS)
Fairfax – 138/69kV Transformer CKT 2 (Included in Scenario 0)	Build	Build an additional 138/69kV transformer at Fairfax substation	Assigned by AECI	Assigned to ASGI-2017-008 (AECI GI-059) per AECI Impact Study
Fairfax – Naval Reserve 69kV CKT 1 (Included in Scenario 0)	Uprate	Uprate of approximately 8.7 miles of 69kV from Fairfax to Naval Reserve	Assigned by AECI	Assigned to ASGI-2017-008 (AECI GI-059) per AECI Impact Study
Fairfax – Remington 138kV CKT 1 (Included in Scenario 0)	Rebuild	Rebuild approximately 8.6 miles of 138kV from Fairfax to Remington	Assigned by AECI	Assigned to ASGI-2017-008 (AECI GI-059) per AECI Impact Study
GI-059 Tap – Shidler 138kV CKT 1 (Included in Scenario 0)	Rebuild	Rebuild approximately 0.25 miles of 138kV from GI-059 Tap to Shidler	Assigned by AECI	Assigned to ASGI-2017-008 (AECI GI-059) per AECI Impact Study
Naval Reserve – Pawya – Pershing Tap 69kV CKT 1 (Included in Scenario 0)	Uprate	Uprate of approximately 14.7 miles of 69 kV from Naval Reserve to Pershing Tap	Assigned by AECI	Assigned to ASGI-2017-008 (AECI GI-059) per AECI Impact Study
Shidler – West Pawhuska – Pawhuska Tap – Domes – Mound Road – Bartlesville 138kV CKT 1*	Rebuild	Rebuild approximately 43 miles of 138kV from Shidler – Bartlesville 138kV to achieve at least 161MVA Summer Peak Normal (Rate A) and 242 Summer Peak Emergency (Rate B)	Current Study	Assigned to ASGI-2017-008 (AECI GIA-059) cost allocation of \$75,811,843 (ERIS)

* 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.

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.

3 FACILITIES

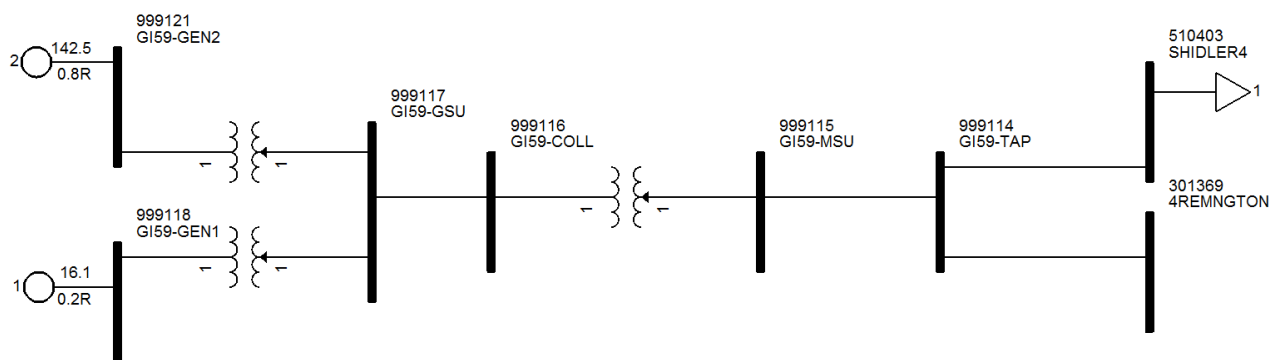
3.1 GENERATING FACILITY

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 AECl at the Remington – Shidler 138 kV line in Osage County, OK.

3.2 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



3.3 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).

4 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.

4.1 MODEL PREPARATION

Power flow analysis was performed using modified versions of the 2016 model series of 2017 ITP Near-Term study models including these seasonal models:

- Year 1 (2017) Winter Peak (17WP)
- Year 2 (2018) Spring (18G)
- Year 2 (2018) Summer Peak (18SP)
- Year 5 (2021) Light (21L)
- Year 5 (2021) Summer (21SP)
- Year 5 (2021) Winter (21WP) peak
- Year 10 (2026) Summer (26SP) peak

To incorporate the Interconnection Customers' request, a re-dispatch of existing generation within SPP and AECI 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. AECI projects are dispatched across the AECI 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.

4.2 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 3** and **Table 4** are dependent on higher queued SPP and AECI upgrades. Incremental SPP upgrades assigned to ASGI-2017-008 can be identified within **Table 2**.

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.

5 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. Please refer to the posting of the original ASGI-2017-008 report for the results of the stability analysis. It was determined that no additional stability analysis was necessary for this re-study. The results of the original ASGI-2017-008 Affected Systems study can be found here:

http://sppoasis.spp.org/documents/swpp/transmission/studies/files/2017_Generation_Studies/ASGI-2017-008_REPORT_FINAL-R0.pdf

6 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 was not conducted for this re-study. The report from the original study of ASGI-2017-008 includes the results of the stability analysis, and that report may be reviewed if needed.

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.

7 STEADY STATE THERMAL AND VOLTAGE CONSTRAINTS

Table 3: Thermal Constraints Requiring Additional Transmission Reinforcements

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	21SP	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	106	106	0.28262	144.7737	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	106	106	0.28335	143.3553	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	106	106	0.28274	134.4188	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	131	131	0.27995	131.1003	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	106	106	0.24299	116.8081	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	106	106	0.24299	116.8081	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21WP	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	131	131	0.28303	116.6283	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	106	106	0.24355	115.8356	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	106	106	0.24355	115.8356	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	17WP	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	131	131	0.28407	115.2385	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	18G	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	131	131	0.28342	114.8035	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	131	131	0.24054	113.1081	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	131	131	0.24054	113.1081	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	131	131	0.23278	107.455	'BARNSDALL PUMP STATION - MOUND ROAD 138KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	131	131	0.23278	107.4072	"P12:138:AEPW:MOUNDRD4:BARNSAL4"
08ALL	0	26SP	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	106	106	0.2431	106.9912	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	106	106	0.2431	106.9912	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	106	106	0.28262	105.9759	'4REMNGTON 138.00 - GI59-TAP 138.00 138KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	131	131	0.23278	104.786	'BARNSDALL - BARNSDALL PUMP STATION 138KV CKT 1'

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	18SP	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	106	106	0.28335	104.4849	'4REMNGTON 138.00 - GI59-TAP 138.00 138KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	131	131	0.23278	102.7695	'BARNSDALL - SKIATOOK PUMP 138KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	131	131	0.23278	102.7613	"P12:138:AEPW:BARNSAL4:T.NO.--4"
08ALL	0	21L	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	131	131	0.23278	102.0628	'SKIATOOK PUMP - TULSA NORTH 138KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'BARTLESVILLE COMANCHE - MOUND ROAD 138KV CKT 1'	131	131	0.27995	100.3702	'4REMNGTON 138.00 - GI59-TAP 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	152	152	0.39596	132.4806	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	152	152	0.39707	130.5642	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	152	152	0.39611	123.7639	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	21L	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	189	189	0.39286	118.6803	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	152	152	0.25607	111.5476	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	152	152	0.25607	111.5476	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21WP	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	189	189	0.39637	109.1774	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	152	152	0.25705	107.7274	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	152	152	0.25705	107.7274	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	18G	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	189	189	0.3976	106.424	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	17WP	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	189	189	0.398	105.4053	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	152	152	0.33989	104.6933	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	152	152	0.33989	104.6933	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21L	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	189	189	0.25282	104.5087	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21L	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	189	189	0.25282	104.5087	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	152	152	0.34076	103.2196	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	152	152	0.34076	103.2196	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	152	152	0.251	102.8831	'CLEVELAND - G15066_T 345.00 345KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	152	152	0.25625	101.3224	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	152	152	0.25625	101.3224	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	152	152	0.25184	99.9	'CLEVELAND - G15066_T 345.00 345KV CKT 1'
08ALL	0	21L	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	189	189	0.33711	99.9	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	21L	GIA_59	'FROM->TO'	'DOMES - MOUND ROAD 138KV CKT 1'	189	189	0.33711	99.9	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.39596	138.9539	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.39707	136.8564	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.39611	130.4888	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	189	189	0.39286	121.4422	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.25607	117.8843	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.25607	117.8843	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.25705	113.8926	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.25705	113.8926	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21WP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	189	189	0.39637	113.8183	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.33989	111.0541	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.33989	111.0541	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	18G	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	189	189	0.3976	110.3304	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	17WP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	189	189	0.398	109.8599	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.34076	109.4072	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.34076	109.4072	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.251	109.1361	'CLEVELAND - G15066_T 345.00 345KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.25625	107.9248	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.25625	107.9248	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	189	189	0.25282	107.2779	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	189	189	0.25282	107.2779	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.25184	105.9879	'CLEVELAND - G15066_T 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.251	105.2408	'G15066_T 345.00 - SOONER 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.24908	104.9293	'TULSA NORTH (TULSA N) 345/138/34.5KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.24908	104.9293	'TULSA NORTH (TULSA N) 345/138/34.5KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.24908	104.9292	'T.NO.2-4 138.00 - TULSA NORTH 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.24908	104.9292	'T.NO.2-4 138.00 - TULSA NORTH 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.25207	104.5306	'GEN511839 1-NORTHEASTERN STATION #2'

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	26SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.34003	103.0779	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.34003	103.0779	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	189	189	0.33711	102.716	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	189	189	0.33711	102.716	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.24983	102.4028	'TULSA NORTH (TULSA N) 345/138/34.5KV TRANSFORMER CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.24983	102.4028	'T.NO.2-4 138.00 - TULSA NORTH 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.24983	102.4028	'T.NO.2-4 138.00 - TULSA NORTH 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.24983	102.4028	'TULSA NORTH (TULSA N) 345/138/34.5KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.253	102.2156	'G15052_T 345.00 - ROSE HILL 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.25184	102.1022	'G15066_T 345.00 - SOONER 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.25281	101.8857	'GEN511839 1-NORTHEASTERN STATION #2'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.25213	101.6998	'CANEYRV7 345.00 - NEOSHO 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.2435	101.2612	'NORTHEAST STATION - RICE CREEK 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.25116	100.4052	'CLEVELAND - G15066_T 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.25022	100.2479	'DELAWARE (DELAWARE) 345/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.25022	100.2479	'DELAWARE (DELAWARE) 345/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.25022	100.2251	'COFFEYVILLE FARMLAND - DELAWARE 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.25022	100.2251	'COFFEYVILLE FARMLAND - DELAWARE 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.39596	100.104	'4REMNGTON 138.00 - GI59-TAP 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.2435	100	'BARTLESVILLE SOUTHEAST - RICE CREEK 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.2525	99.7	'LACYGNE - WAVERLY7 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'DOMES - PAWHUSKA TAP 138KV CKT 1'	152	152	0.2435	99.7	''P12:138:AEPW:N.E.S.-4:BV-SE--4''
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.39596	147.8528	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.39707	145.2675	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.39611	139.8649	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25607	126.6582	'CLEVELAND - TULSA NORTH 345KV CKT 1'

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25607	126.6582	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	189	189	0.39286	125.7149	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25705	122.1828	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25705	122.1828	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.33989	119.8272	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.33989	119.8272	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21WP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	189	189	0.39637	117.9602	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.251	117.8565	'CLEVELAND - G15066_T 345.00 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.34076	117.7028	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.34076	117.7028	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25625	117.1828	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25625	117.1828	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	18G	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	189	189	0.3976	115.6482	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25184	114.2352	'CLEVELAND - G15066_T 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.251	113.9549	'G15066_T 345.00 - SOONER 345KV CKT 1'
08ALL	0	17WP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	189	189	0.398	113.8715	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24908	113.689	'T.NO.2-4 138.00 - TULSA NORTH 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24908	113.689	'TULSA NORTH (TULSA N) 345/138/34.5KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24908	113.689	'T.NO.2-4 138.00 - TULSA NORTH 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24908	113.689	'TULSA NORTH (TULSA N) 345/138/34.5KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25207	113.2601	'GEN511839 1-NORTHEASTERN STATION #2'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.34003	112.3335	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.34003	112.3335	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	189	189	0.25282	111.5374	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	189	189	0.25282	111.5374	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.253	110.9842	'G15052_T 345.00 - ROSE HILL 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24983	110.6859	'TULSA NORTH (TULSA N) 345/138/34.5KV TRANSFORMER CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24983	110.6859	'T.NO.2-4 138.00 - TULSA NORTH 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24983	110.6859	'TULSA NORTH (TULSA N) 345/138/34.5KV TRANSFORMER CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24983	110.6859	'T.NO.2-4 138.00 - TULSA NORTH 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25213	110.4577	'CANEYRV7 345.00 - NEOSHO 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25184	110.3451	'G15066_T 345.00 - SOONER 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.2435	110.186	'NORTHEAST STATION - RICE CREEK 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25281	110.1406	'GEN511839 1-NORTHEASTERN STATION #2'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25116	109.6238	'CLEVELAND - G15066_T 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25022	109.0926	'DELAWARE (DELAWARE) 345/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25022	109.0926	'DELAWARE (DELAWARE) 345/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25022	109.0756	'COFFEYVILLE FARMLAND - DELAWARE 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25022	109.0756	'COFFEYVILLE FARMLAND - DELAWARE 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.2435	108.9238	'BARTLESVILLE SOUTHEAST - RICE CREEK 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.39596	108.8323	'4REMINGTON 138.00 - G159-TAP 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.2435	108.6242	'P12:138:AEPW:N.E.S.-4:BV-SE--4''
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.2525	108.4126	'LACYGNE - WAVERLY7 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.253	108.1009	'G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1'

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.2528	107.9579	'G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25291	107.7922	'CANEYRV7 345.00 - NEOSHO 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25376	107.6328	'G15052_T 345.00 - ROSE HILL 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25213	107.6261	'CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24726	107.613	'NORTHEAST STATION - WATOVA 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24421	107.3565	'NORTHEAST STATION - RICE CREEK 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.2525	107.052	'WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24726	106.9809	'NOWATA - WATOVA 138KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	189	189	0.33711	106.9628	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21L	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	189	189	0.33711	106.9628	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.26502	106.9609	"P12:161:GRDA-AECI:PAWNEE-STILLWATER"
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.26502	106.8967	'4GLENCOE 138.00 - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24726	106.7651	"P12:138:AEPW:NOWATA-4:N.E.S-4"
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.23518	106.7603	'SKIATOOK PUMP - TULSA NORTH 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25219	106.7037	'GEN511839 1-NORTHEASTERN STATION #2'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.26502	106.5071	'4GLENCOE 138.00 - STILLWATER 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25262	106.3618	'NORTHWEST - SPRING CREEK 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.23518	106.353	'BARNSDALL - SKIATOOK PUMP 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.23518	106.3312	"P12:138:AEPW:BARNSAL4:T.NO.--4"
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.39707	106.2033	'4REMNGTON 138.00 - GI59-TAP 138.00 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24922	106.1907	'T.NO.2-4 138.00 - TULSA NORTH 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24922	106.1907	'TULSA NORTH (TULSA N) 345/138/34.5KV TRANSFORMER CKT 1'

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24922	106.1907	'TULSA NORTH (TULSA N) 345/138/34.5KV TRANSFORMER CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24922	106.1907	'T.NO.2-4 138.00 - TULSA NORTH 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25224	106.1883	"P12:138:OKGE:3TERM2"
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25207	106.1652	'GEN511837 1-NORTHEASTERN STATION # 1-1A'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24421	106.1619	'BARTLESVILLE SOUTHEAST - RICE CREEK 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.2528	106.1609	'G15063_T 345.00 - WOODRING 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25095	106.1423	'DELAWARE (DELAWARE) 345/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25095	106.1423	'DELAWARE (DELAWARE) 345/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25095	106.1238	'COFFEYVILLE FARMLAND - DELAWARE 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25095	106.1238	'COFFEYVILLE FARMLAND - DELAWARE 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25207	106.1172	'GEN511838 1-NORTHEASTERN STATION # 1-1B'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25272	106.0731	'VIOLA 7 345.00 - WICHITA 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25218	106.0497	'MORISNT4 138.00 - STILLWATER 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25369	105.9269	'SPVALLY4 138.00 - STILLWATER 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25326	105.9062	'LACYGNE - WAVERLY7 345.00 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24421	105.8718	"P12:138:AEPW:N.E.S.-4:BV-SE--4"
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24726	105.8477	'BARTLESVILLE SOUTHEAST - NOWATA 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25207	105.847	'GEN509394 1-FLINT CREEK'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25116	105.75	'G15066_T 345.00 - SOONER 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25207	105.6455	'GEN511836 1-NORTHEASTERN STATION #1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25356	105.6113	'G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25207	105.5471	'GEN511840 1-NORTHEASTERN STATION #3'

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25246	105.4975	'DELAWARE - NORTHEAST STATION 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25246	105.4975	'DELAWARE - NORTHEAST STATION 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25207	105.472	'GEN512688 2-GRDA1 GSU2 22'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25264	105.4472	'SOONER - SPRING CREEK 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25177	105.4406	'REDBUD - RIVERSIDE STATION 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25177	105.4406	'REDBUD - RIVERSIDE STATION 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25705	105.3979	"P12:69:GRDA:2FAIRFAX-2GETTYTAP"
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25705	105.3574	'2GETTYTAP 69.000 - FAIRFAX 69KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.253	105.2584	'OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25171	105.1738	'CLARKSVILLE - MUSKOGEE 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25171	105.1738	'CLARKSVILLE - MUSKOGEE 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25344	105.0606	"P12:138:WERE:ELPA-MURR_138:."
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25299	105.035	'RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25705	105.0022	'2GETTYTAP 69.000 - PAWNEE 69KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25291	104.9287	'CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25211	104.9194	'CHAMBER SPRINGS - CLARKSVILLE 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25256	104.8598	'CLEAVELAND - JAVINE 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25213	104.8178	'LATHAMS7 345.00 - ROSE HILL 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24799	104.7667	'NORTHEAST STATION - WATOVA 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.26567	104.6902	"P12:161:GRDA-AECI:PAWNEE-STILLWATER"
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25376	104.6765	'G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.26567	104.6293	'4GLENCOE 138.00 - PAWNSW4 138.00 138KV CKT 1'

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.26567	104.6293	'4GLENCOE 138.00 - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25326	104.528	'WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.26567	104.2494	'4GLENCOE 138.00 - STILLWATER 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24799	104.1484	'NOWATA - WATOVA 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24362	104.1378	'NORTHEAST STATION - RICE CREEK 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.23587	104.0715	'SKIATOOK PUMP - TULSA NORTH 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25313	104.0469	'G15052_T 345.00 - ROSE HILL 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24799	103.9384	"P12:138:AEPW:NOWATA-4:N.E.S-4"
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.23587	103.7397	'BARNSDALL - SKIATOOK PUMP 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25356	103.7327	'G15063_T 345.00 - WOODRING 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.23587	103.7231	"P12:138:AEPW:BARNSAL4:T.NO.-4"
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25337	103.7057	'NORTHWEST - SPRING CREEK 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25304	103.3467	"P12:138:OKGE:3TERM2"
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25281	103.2854	'GEN511837 1-NORTHEASTERN STATION # 1-1A'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25281	103.237	'GEN511838 1-NORTHEASTERN STATION # 1-1B'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25298	103.1929	'MORISNT4 138.00 - STILLWATER 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25438	103.0488	'SPVALLY4 138.00 - STILLWATER 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25345	103.0227	'VIOLA 7 345.00 - WICHITA 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24799	103.0158	'BARTLESVILLE SOUTHEAST - NOWATA 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25318	102.8883	'DELAWARE - NORTHEAST STATION 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25318	102.8883	'DELAWARE - NORTHEAST STATION 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25398	102.8625	"P13:069-138:WERE:HALS TX-10R4_138-69::"

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24362	102.8081	'BARTLESVILLE SOUTHEAST - RICE CREEK 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25338	102.7982	'SOONER - SPRING CREEK 345KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25227	102.753	'CANEYRV7 345.00 - NEOSHO 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25281	102.7042	'GEN511836 1-NORTHEASTERN STATION #1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25207	102.6482	'BASE CASE'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25281	102.6045	'GEN511840 1-NORTHEASTERN STATION #3'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24362	102.4987	'P12:138:AEPW:N.E.S.-4:BV-SE--4'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25781	102.4317	'P12:69:GRDA:2FAIRFAX-2GETTYTAP'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25281	102.405	'GEN512688 2-GRDA1 GSU2 22'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25781	102.3939	'2GETTYTAP 69.000 - FAIRFAX 69KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25291	102.1305	'LATHAMS7 345.00 - ROSE HILL 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25285	102.1116	'CHAMBER SPRINGS - CLARKSVILLE 345KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25035	102.0776	'DELAWARE (DELAWARE) 345/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25035	102.0776	'DELAWARE (DELAWARE) 345/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25035	102.064	'COFFEYVILLE FARMLAND - DELAWARE 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25035	102.064	'COFFEYVILLE FARMLAND - DELAWARE 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25781	102.0455	'2GETTYTAP 69.000 - PAWNEE 69KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25399	101.9494	'RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25333	101.8935	'CLEVELAND - JAVINE 138KV CKT 1'
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25281	101.8823	'GEN513601 1-GRECCTG_1 20.000'
08ALL	0	21L	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	189	189	0.24808	101.6013	'CLEVELAND - G15066_T 345.00 345KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25291	101.5218	'G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1'

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24738	101.2625	'NORTHEAST STATION - WATOVA 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25313	101.1477	'G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25263	100.9526	'LACYGNE - WAVERLY7 345.00 345KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.39611	100.9517	'4REMNGTON 138.00 - GI59-TAP 138.00 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24738	100.5986	'NOWATA - WATOVA 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.2353	100.5353	'SKIATOOK PUMP - TULSA NORTH 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25151	100.5126	'CHELSEA - HAWTHORNE 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25601	100.5039	'DMNCRKT4 - MILLER 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25136	100.4889	'NORTHEAST STATION - OWASSO SOUTH 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25151	100.4562	'HAWTHORNE - NORTHEAST STATION 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.26514	100.4468	"P12:161:GRDA-AECI:PAWNEE-STILLWATER"
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25136	100.4251	'CLAREMORE TRANSOK - NORTHEAST STATION 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.26514	100.3804	'4GLENCOE 138.00 - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.26514	100.3804	'4GLENCOE 138.00 - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.24738	100.3773	"P12:138:AEPW:NOWATA-4:N.E.S-4"
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25601	100.3459	'MILLER - SOONER 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.26254	100.297	'SOONER (SOONER5) 345/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25495	100.2428	'NEWKIRK4 - PECKHAM TAP 138KV CKT 1'
08ALL	0	21WP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	189	189	0.25667	100.2408	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21WP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	189	189	0.25667	100.2408	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25207	100.2194	'GEN562882 1-G15047_3 0.6900'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25207	100.1649	'GEN533141 1-SLATEGEN1 0.6900'

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25495	100.0939	'MIDLNT4 138.00 - PECKHAM TAP 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.23547	100.0676	'BARTLESVILLE COMANCHE - BARTLESVILLE SOUTHEAST 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25207	100	'GEN999118 1-GI59-GEN1 0.6900'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.2353	100	'BARNSDALL - SKIATOOK PUMP 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25227	100	'CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.26514	100	'4GLENCOE 138.00 - STILLWATER 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.2353	100	"P12:138:AEPW:BARNAL4:T.NO.-4"
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25274	99.9	'NORTHWEST - SPRING CREEK 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25136	99.9	"P12:138:AEPW:N.E.S.-4:CATOOSA4_2OF2"
08ALL	0	18SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25281	99.8	'BASE CASE'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25207	99.8	'GEN562691 1-G15_015_3 0.6900'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25136	99.8	"P12:138:AEPW:N.E.S.-4:CATOOSA4_1OF2"
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25736	99.7	'KILDARE4 - WHITE EAGLE 138KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25291	99.7	'G15063_T 345.00 - WOODRING 345KV CKT 1'
08ALL	0	26SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25263	99.7	'WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25123	99.6	'4OOLOGAH 138.00 - CLAREMORE 138KV CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25123	99.6	'CLAREMORE (CLRAUTO4) 161/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'TO->FROM'	'PAWHUSKA TAP - WEST PAWHUSKA 138KV CKT 1'	152	152	0.25123	99.6	'CLAREMORE (CLRAUTO4) 161/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.39596	149.997	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.39707	147.3526	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.39611	142.0785	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25607	128.8088	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25607	128.8088	'CLEVELAND - TULSA NORTH 345KV CKT 1'

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	21L	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	181	189	0.39286	126.6033	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25705	124.2755	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25705	124.2755	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.33989	121.9757	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.33989	121.9757	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.251	120.016	'CLEVELAND - G15066_T 345.00 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.34076	119.7943	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.34076	119.7943	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21WP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	181	189	0.39637	119.473	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25625	119.403	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25625	119.403	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25207	117.1208	'BASE CASE'
08ALL	0	18G	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	181	189	0.3976	116.9597	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25184	116.3388	'CLEVELAND - G15066_T 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.251	116.1089	'G15066_T 345.00 - SOONER 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24908	115.8356	'T.NO.2-4 138.00 - TULSA NORTH 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24908	115.8356	'TULSA NORTH (TULSA N) 345/138/34.5KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24908	115.8356	'T.NO.2-4 138.00 - TULSA NORTH 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24908	115.8356	'TULSA NORTH (TULSA N) 345/138/34.5KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25207	115.4057	'GEN511839 1-NORTHEASTERN STATION #2'
08ALL	0	17WP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	181	189	0.398	115.3364	'4REMNGTON 138.00 - FAIRFAX 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.34003	114.5529	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.34003	114.5529	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25281	113.8351	'BASE CASE'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.253	113.1338	'G15052_T 345.00 - ROSE HILL 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24983	112.7755	'T.NO.2-4 138.00 - TULSA NORTH 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24983	112.7755	'TULSA NORTH (TULSA N) 345/138/34.5KV TRANSFORMER CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24983	112.7755	'T.NO.2-4 138.00 - TULSA NORTH 138KV CKT 1'

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24983	112.7755	'TULSA NORTH (TULSA N) 345/138/34.5KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25213	112.6066	'CANEYRV7 345.00 - NEOSHO 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25184	112.443	'G15066_T 345.00 - SOONER 345KV CKT 1'
08ALL	0	21L	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	181	189	0.25282	112.4301	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21L	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	181	189	0.25282	112.4301	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.2435	112.3444	'NORTHEAST STATION - RICE CREEK 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25281	112.2297	'GEN511839 1-NORTHEASTERN STATION #2'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25116	111.8535	'CLEVELAND - G15066_T 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25022	111.2445	'DELAWARE (DELAWARE) 345/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25022	111.2445	'DELAWARE (DELAWARE) 345/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25022	111.2279	'COFFEYVILLE FARMLAND - DELAWARE 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25022	111.2279	'COFFEYVILLE FARMLAND - DELAWARE 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.2435	111.0787	'BARTLESVILLE SOUTHEAST - RICE CREEK 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.39596	110.9812	'4REMINGTON 138.00 - GI59-TAP 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.2435	110.7792	"P12:138:AEPW:N.E.S.-4:BV-SE--4"
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.2525	110.561	'LACYGNE - WAVERLY7 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.253	110.2479	'G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.2528	110.1072	'G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25291	109.8849	'CANEYRV7 345.00 - NEOSHO 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25213	109.7723	'CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24726	109.7645	'NORTHEAST STATION - WATOVA 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25376	109.725	'G15052_T 345.00 - ROSE HILL 345KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25219	109.6415	'BASE CASE'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24421	109.4538	'NORTHEAST STATION - RICE CREEK 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.2525	109.199	'WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24726	109.1309	'NOWATA - WATOVA 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.26502	109.0975	"P12:161:GRDA-AECI:PAWNEE-STILLWATER"

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.26502	109.0333	'4GLENCOE 138.00 - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25219	108.9194	'GEN511839 1-NORTHEASTERN STATION #2'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24726	108.9152	"P12:138:AEPW:NO WATA-4:N.E.S--4"
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.23518	108.9112	'SKIATOOK PUMP - TULSA NORTH 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.26502	108.6439	'4GLENCOE 138.00 - STILLWATER 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25262	108.5096	'NORTHWEST - SPRING CREEK 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.23518	108.504	'BARNSDALL - SKIATOOK PUMP 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.23518	108.4822	"P12:138:AEPW:BARNSAL4:T.NO.--4"
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24922	108.4078	'T.NO.2-4 138.00 - TULSA NORTH 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24922	108.4078	'TULSA NORTH (TULSA N) 345/138/34.5KV TRANSFORMER CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24922	108.4078	'T.NO.2-4 138.00 - TULSA NORTH 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24922	108.4078	'TULSA NORTH (TULSA N) 345/138/34.5KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25224	108.3418	"P12:138:OKGE:3TERM2"
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25207	108.3094	'GEN511837 1-NORTHEASTERN STATION # 1-1A'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.2528	108.3082	'G15063_T 345.00 - WOODRING 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.39707	108.2969	'4REMINGTON 138.00 - GI59-TAP 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25207	108.2614	'GEN511838 1-NORTHEASTERN STATION # 1-1B'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24421	108.2569	'BARTLESVILLE SOUTHEAST - RICE CREEK 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25095	108.2334	'DELAWARE (DELAWARE) 345/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25095	108.2334	'DELAWARE (DELAWARE) 345/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25272	108.2193	'VIOLA 7 345.00 - WICHITA 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25095	108.2154	'COFFEYVILLE FARMLAND - DELAWARE 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25095	108.2154	'COFFEYVILLE FARMLAND - DELAWARE 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25218	108.2031	'MORISNT4 138.00 - STILLWATER 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25369	108.0715	'SPVALLY4 138.00 - STILLWATER 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25326	107.9988	'LACYGNE - WAVERLY7 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24726	107.9964	'BARTLESVILLE SOUTHEAST - NOWATA 138KV CKT 1'

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25207	107.9935	'GEN509394 1-FLINT CREEK'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25116	107.9742	'G15066_T 345.00 - SOONER 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24421	107.9669	"P12:138:AEPW:N.E.S.-4:BV-SE--4"
08ALL	0	21L	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	181	189	0.33711	107.8535	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21L	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	181	189	0.33711	107.8535	'FAIRFAX - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25207	107.7897	'GEN511836 1-NORTHEASTERN STATION #1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25356	107.7053	'G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25207	107.6939	'GEN511840 1-NORTHEASTERN STATION #3'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25246	107.6441	'DELAWARE - NORTHEAST STATION 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25246	107.6441	'DELAWARE - NORTHEAST STATION 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25207	107.6185	'GEN512688 2-GRDA1 GSU2 22'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25264	107.5938	'SOONER - SPRING CREEK 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25177	107.5861	'REDBUD - RIVERSIDE STATION 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25177	107.5861	'REDBUD - RIVERSIDE STATION 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25705	107.5394	"P12:69:GRDA:2FAIRFAX-2GETTYTAP"
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25705	107.4991	'2GETTYTAP 69.000 - FAIRFAX 69KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.253	107.404	'OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25171	107.319	'CLARKSVILLE - MUSKOGEE 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25171	107.319	'CLARKSVILLE - MUSKOGEE 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25344	107.2067	"P12:138:WERE:ELPA-MURR_138::"
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25299	107.1803	'RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25705	107.1439	'2GETTYTAP 69.000 - PAWNEE 69KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25211	107.0652	'CHAMBER SPRINGS - CLARKSVILLE 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25291	107.0189	'CANERYV7 345.00 - LATHAMS7 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25256	107.0031	'CLEAVELAND - JAVINE 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25213	106.9628	'LATHAMS7 345.00 - ROSE HILL 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25207	106.8969	'GEN513601 1-GRECCTG_1 20.000'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24799	106.8594	'NORTHEAST STATION - WATOVA 138KV CKT 1'

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25371	106.7974	'4SFORKKTP 138.00 - SKIATOOK TAP 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.26567	106.7697	"P12:161:GRDA-AECI:PAWNEE-STILLWATER"
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25376	106.7666	'G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.26567	106.7087	'4GLENCOE 138.00 - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.26567	106.7087	'4GLENCOE 138.00 - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25326	106.6192	'WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24362	106.365	'NORTHEAST STATION - RICE CREEK 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.26567	106.329	'4GLENCOE 138.00 - STILLWATER 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25313	106.2667	'G15052_T 345.00 - ROSE HILL 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24799	106.2402	'NOWATA - WATOVA 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.23587	106.1636	'SKIATOOK PUMP - TULSA NORTH 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24799	106.0301	"P12:138:AEPW:NOWATA-4.N.E.S-4"
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.23587	105.832	'BARNSDALL - SKIATOOK PUMP 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25356	105.8246	'G15063_T 345.00 - WOODRING 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.23587	105.8155	"P12:138:AEPW:BARNSAL4:T.NO.-4"
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25337	105.7977	'NORTHWEST - SPRING CREEK 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25304	105.4441	"P12:138:OKGE:3TERM2"
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25281	105.3735	'GEN511837 1-NORTHEASTERN STATION # 1-1A'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25281	105.3251	'GEN511838 1-NORTHEASTERN STATION # 1-1B'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25298	105.2902	'MORISNT4 138.00 - STILLWATER 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25438	105.137	'SPVALLY4 138.00 - STILLWATER 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25345	105.1128	'VIOLA 7 345.00 - WICHITA 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24799	105.1067	'BARTLESVILLE SOUTHEAST - NOWATA 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24362	105.0331	'BARTLESVILLE SOUTHEAST - RICE CREEK 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25318	104.9781	'DELAWARE - NORTHEAST STATION 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25318	104.9781	'DELAWARE - NORTHEAST STATION 345KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25227	104.9721	'CANEYRV7 345.00 - NEOSHO 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25398	104.9534	"P13:069-138:WERE:HALS TX-1OR4_138-69::"

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25338	104.8889	'SOONER - SPRING CREEK 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25281	104.7922	'GEN511836 1-NORTHEASTERN STATION #1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24362	104.7231	"P12:138:AEPW:N.E.S.-4:BV-SE--4"
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25281	104.695	'GEN511840 1-NORTHEASTERN STATION #3'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25781	104.5166	"P12:69:GRDA:2FAIRFAX-2GETTYTAP"
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25281	104.4953	'GEN512688 2-GRDA1 GSU2 22'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25781	104.4788	'2GETTYTAP 69.000 - FAIRFAX 69KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25035	104.2996	'DELAWARE (DELAWARE) 345/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25035	104.2996	'DELAWARE (DELAWARE) 345/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25035	104.2865	'COFFEYVILLE FARMLAND - DELAWARE 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25035	104.2865	'COFFEYVILLE FARMLAND - DELAWARE 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25291	104.2193	'LATHAMS7 345.00 - ROSE HILL 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25285	104.2014	'CHAMBER SPRINGS - CLARKSVILLE 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25781	104.1307	'2GETTYTAP 69.000 - PAWNEE 69KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25399	104.0388	'RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25333	103.9801	'CLEAVELAND - JAVINE 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25376	103.9754	'OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25281	103.9706	'GEN513601 1-GRECCTG 1 20.000'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25291	103.742	'G15063_T 345.00 - MATHWSN7 345.00 345KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24738	103.4844	'NORTHEAST STATION - WATOVA 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25313	103.3654	'G15052_T 345.00 - OPENSKY7 345.00 345KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25263	103.1714	'LACYGNE - WAVERLY7 345.00 345KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.39611	103.1711	'4REMINGTON 138.00 - G159-TAP 138.00 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24738	102.8191	'NOWATA - WATOVA 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.2353	102.7567	'SKIATOOK PUMP - TULSA NORTH 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25136	102.7345	'CLAREMORE TRANSOK - VERDIGRIS 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25151	102.6571	'CHELSEA - HAWTHORNE 138KV CKT 1'

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.26514	102.6531	"P12:161:GRDA-AECI:PAWNEE-STILLWATER"
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25601	102.6497	'DMNCRKT4 - MILLER 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25495	102.6394	'NEWKIRK4 - NWKRKAT4 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25136	102.6334	'NORTHEAST STATION - OWASSO SOUTH 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25151	102.6006	'HAWTHORNE - NORTHEAST STATION 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24738	102.5978	"P12:138:AEPW:NOWATA-4:N.E.S-4"
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.26514	102.5867	'4GLENCOE 138.00 - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.26514	102.5867	'4GLENCOE 138.00 - PAWNSW4 138.00 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25136	102.5696	'CLAREMORE TRANSOK - NORTHEAST STATION 138KV CKT 1'
08ALL	0	21L	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	181	189	0.24808	102.5116	'CLEVELAND - G15066_T 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25601	102.4918	'MILLER - SOONER 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.26254	102.4397	'SOONER (SOONER5) 345/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25495	102.3851	'NEWKIRK4 - PECKHAM TAP 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25207	102.362	'GEN562882 1-G15047_3 0.6900'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25207	102.307	'GEN533141 1-SLATEGEN1 0.6900'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25495	102.2362	'MIDLNT4 138.00 - PECKHAM TAP 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.2353	102.2209	'BARNSDALL - SKIATOOK PUMP 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.23547	102.2185	'BARTLESVILLE COMANCHE - BARTLESVILLE SOUTHEAST 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.2353	102.1907	"P12:138:AEPW:BARNSAL4:T.NO.--4"
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.26514	102.1862	'4GLENCOE 138.00 - STILLWATER 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25227	102.1827	'CANEYRV7 345.00 - LATHAMS7 345.00 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25207	102.1471	'GEN999118 1-G159-GEN1 0.6900'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25274	102.0903	'NORTHWEST - SPRING CREEK 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25136	101.9984	"P12:138:AEPW:N.E.S.-4:CATOOSA4_2OF2"
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25136	101.9895	"P12:138:AEPW:N.E.S.-4:CATOOSA4_1OF2"
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25291	101.9635	'G15063_T 345.00 - WOODRING 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25207	101.924	'GEN562691 1-G15_015_3 0.6900'

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25263	101.8917	'WAVERLY7 345.00 - WOLF CREEK 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25736	101.8103	'KILDARE4 - WHITE EAGLE 138KV CKT 1'
08ALL	0	21WP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	181	189	0.25667	101.7599	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21WP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	181	189	0.25667	101.7599	'CLEVELAND - TULSA NORTH 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25123	101.7136	'4OOLOGAH 138.00 - CLAREMORE 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25123	101.7135	'CLAREMORE (CLRAUTO4) 161/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25123	101.7135	'CLAREMORE (CLRAUTO4) 161/138/13.8KV TRANSFORMER CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25219	101.6673	'GEN511837 1-NORTHEASTERN STATION # 1-1A'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.24738	101.6258	'BARTLESVILLE SOUTHEAST - NOWATA 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25219	101.6186	'GEN511838 1-NORTHEASTERN STATION # 1-1B'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25123	101.5237	'4OOLOGAH 138.00 - NORTHEAST STATION 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25123	101.4945	"P12:138:AECI-AEPW:CLARMR5:N.E.S.-4"
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25304	101.4922	'RANCHRD7 345.00 - SOONER 345KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25237	101.4858	"P12:138:OKGE:3TERM2"
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.259	101.4761	'OSAGE - SOONER PUMP TAP 138KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25207	101.4371	'GEN514806 1-SOONER UNIT 2'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25285	101.4148	'VIOLA 7 345.00 - WICHITA 345KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.259	101.3574	'SOONER - SOONER PUMP TAP 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25231	101.3303	'MORISNT4 138.00 - STILLWATER 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25219	101.3088	'GEN509394 1-FLINT CREEK'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25219	101.2232	'GEN512688 2-GRDA1 GSU2 22'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25207	101.2001	'GEN562611 1-G14_064_3 0.6900'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25219	101.1545	'GEN511836 1-NORTHEASTERN STATION #1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25276	101.1424	'SOONER - SPRING CREEK 345KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25381	101.0879	'SPVALLY4 138.00 - STILLWATER 138KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25717	100.8	"P12:69:GRDA:2FAIRFAX-2GETTYTAP"
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25717	100.7571	'2GETTYTAP 69.000 - FAIRFAX 69KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25781	100.6673	"P12:138:OKGE:3TERM7"

Dispatch Group	Scenario	Season	Source	Flow	Monitored Element	RATEA (MVA)	RATEB (MVA)	TDF	TC% LOADING	Contingency
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25313	100.5854	'OPENSKY7 345.00 - RANCHR7 345.00 345KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25184	100.55	'CLARKSVILLE - MUSKOGEE 345KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25184	100.55	'CLARKSVILLE - MUSKOGEE 345KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25356	100.5173	"P12:138:WERE:ELPA-MURR_138::"
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25717	100.3838	'2GETTYTAP 69.000 - PAWNEE 69KV CKT 1'
08ALL	0	21SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25207	100.3817	'GEN587483 1-G16-071-GEN10.6900'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25312	100.3285	'RENFROW7 345.00 - VIOLA 7 345.00 345KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25259	100.3073	'DELAWARE - NORTHEAST STATION 345KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25259	100.3073	'DELAWARE - NORTHEAST STATION 345KV CKT 1'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25219	100.2242	'GEN513601 1-GRECCTG_1 20.000'
08ALL	0	26SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25269	100.1096	'CLEVELAND - JAVINE 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25689	99.9	'DMNCRKT4 - MILLER 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.2521	99.8	'NORTHEAST STATION - OWASSO SOUTH 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.2521	99.7	'CLAREMORE TRANSOK - NORTHEAST STATION 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25689	99.7	'MILLER - SOONER 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25226	99.6	'CHELSEA - HAWTHORNE 138KV CKT 1'
08ALL	0	18SP	GIA_59	'FROM->TO'	'SHIDLER - WEST PAWHUSKA 138KV CKT 1'	136	152	0.25226	99.6	'HAWTHORNE - NORTHEAST STATION 138KV CKT 1'

Table 4: 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						